Madison College Catalog

(Program Listings and Course Descriptions)

2025-2026

Madison Area Technical College does not discriminate on the basis of race, color, national origin, sex, disability, age, or any other legally protected status in employment, admissions, treatment, or access to its programs or activities. Madison College offers degrees, diplomas, apprenticeships and certificates in Architecture & Engineering; Arts, Design & Humanities; Business; Construction, Manufacturing & Maintenance; Culinary, Hospitality & Fitness; Education & Social Services; Health Sciences; Information Technology; Law, Protective & Human Services; Science, Mat & Natural Resources; and Transportation. Admissions criteria vary by program and are available by calling our Enrollment Office at (608) 246-6210 or (800) 322-6282 Ext. 6210. The following person has been designated to coordinate Title IX of the Education Amendments of 1972 and Section 504 of the Rehabilitation Act of 1973 and to handle inquiries regarding the college's nondiscrimination policies:

Lisa Muchka
Affirmative Action/Equal Opportunity Officer/Title IX Coordinator
Civil Rights and Compliance Director
Madison College
1701 Wright Street
Madison, WI 53704
(608) 246.5221

As a recipient of federal financial assistance for education activities, Madison College is required by Title IX of the Education Amendments of 1972 to ensure that all of its education programs and activities do not discriminate on the basis of sex/gender. Sex includes sex, sex stereotypes, gender identity, gender expression, sexual orientation, and pregnancy or parenting status. Madison College also prohibits retaliation against any person opposing discrimination or participating in any discrimination investigation or complaint process internal or external to the institution. Sexual harassment, sexual assault, dating and domestic violence, and stalking are forms of sex discrimination, which are prohibited under Title IX and by Madison College policy. Any member of the campus community, guest, or visitor who acts to deny, deprive, or limit the educational, employment, residential, or social access, opportunities and/or benefits of any member of the Madison College community on the basis of sex or any other protected class listed above is in violation of Madison College Equal Opportunity, Harassment and Nondiscrimination policy. Any person may report sex discrimination (whether or not the person reporting is the person alleged to have experienced the conduct), in person, by mail, by telephone, by video, or by email, using the contact information listed for the Title IX Coordinator (above). Use this form or send an email to the college's Title IX Coordinator to report an alleged violation of Madison College's Equal Opportunity, Harassment and Non-Discrimination Policy. Reports may be made at any time, including during non-business hours.

For further information on the notice of non-discrimination, or to locate the enforcement office serving your area, visit https://ocrcas.ed.gov/contact-ocr , or call 1-800-421-3481.

Madison Area Technical College

Effective 2025-2026
Program Number: 102072

3D Art and Animation

An Associate in Applied Arts Degree

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
Pre-program Course Requirements			
ANIM 10207112	2D Fundamentals	2	0-4
ANIM 10207113	3D Fundamentals	2	0-4
First Semester			
ENGLISH 10801195	Written Communication	3	3-0
ANIM 10207103	Basic Drawing for Concepting	2	0-4
ANIM 10207110	Animation 1	2	0-4
ANIM 10207111	Texturing 1	2	0-4
ANIM 10207114	Modeling 1	2	0-4
ANIM 10207115	Technical Skills 1	2	0-4
ANIM 10207139	Design & Color for Concepting	2	0-4
Second Semester			
COMM 10801196	Oral/Interpersonal Communication	3	3-0
ANIM 10207117	Figure Drawing for Concepting	3	0-6
ANIM 10207124	Concepting 1	2	0-4
ANIM 10207148	Digital Cinematography	1	0-2
Animation Track:			
ANIM 10207120	Animation 2	2	0-4
ANIM 10207123	Animation Technical Skills 2	2	0-4
3D Artist Track:			
ANIM 10207224	Modeling 2	2	0-4
ANIM 10207122	Texturing 2	2	0-4
Third Semester			
MATH 10804107	College Mathematics	3	2-2
PHILOS 10809166	Introduction to Ethics: Theory and Application	3	3-0
ANIM 10207151	Concepting 2	2	0-4
ANIM 10207137	Pre-Production	2	0-4
Animation Track:			
ANIM 10207131	Animation 3	2	0-4
ANIM 10207135	Real-Time Animation 1	2	0-4
ANIM 10207140	Technical Skills 3	2	0-4
3D Artist Track:			
ANIM 10207134	Modeling 3	2	0-4
ANIM 10207130	Digital Set Design 1	2	0-4
ANIM 10207136	Texturing 3	2	0-4
Fourth Semester			

PSYCH 10809199	Psychology Of Human Relations	3	3-0
ANIM 10207141	Production 1	3	0-6
ANIM 10207146	Production 2	3	0-6
ANIM 10207147	Rendering	2	0-4
ANIM 10207145	3D Portfolio	1	0-2
Animation Track:			
ANIM 10207149	Real-Time Animation 2	3	0-6
3D Artist Track:			
ANIM 10207160	Animation Digital Set Design 2	3	0-6

Effective 2025-2026
Program Number: 101011

Accounting

An Associate in Applied Science Degree

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
ACCTG 10101111	Accounting 1 - Principles	4	4-0
BUSADM 10102134	Introduction to Business	3	3-0
ADMINPRF 10106109	Business Spreadsheet Applications	3	1-4
MATH 10804144	Math of Finance	3	3-0
ENGLISH 10801195	Written Communication	3	3-0
Second Semester			
ACCTG 10101113	Accounting 2 - Principles	4	4-0
ACCTG 10101123	Tax 1	4	4-0
ACCTG 10101143	QuickBooks	2	1-2
ADMINPRF 10106190	Professional Development	1	1-0
FINANCE 10114130	Personal Finance	3	3-0
Third Semester			
ACCTG 10101121	Accounting 3 - Intermediate	4	4-0
ACCTG 10101125	Cost Management	4	4-0
ACCTG 10101138	Accounting and Payroll Systems	3	2-2
COMM 10801196	Oral/Interpersonal Communication	3	3-0
PSYCH 10809199	Psychology Of Human Relations	3	3-0
Fourth Semester			
ACCTG 10101122	Accounting 4 - Intermediate	4	4-0
ACCTG 10101137	Computerized Accounting Applications	2	1-2
ACCTG 10101142	Accounting Capstone	3	2-2
BUSADM 10102160	Business Law 1	3	3-0
ECON 10809195	Economics	3	3-0

Effective 2025-2026
Program Number: 311011

Accounting Assistant

A Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
ACCTG 10101111	Accounting 1 - Principles	4	4-0
BUSADM 10102134	Introduction to Business	3	3-0
ADMINPRF 10106109	Business Spreadsheet Applications	3	1-4
ENGLISH 10801195	Written Communication	3	3-0
MATH 10804144	Math of Finance	3	3-0
Second Semester			
ACCTG 10101113	Accounting 2 - Principles	4	4-0
ACCTG 10101143	QuickBooks	2	1-2
ACCTG 10101123	Tax 1	4	4-0
FINANCE 10114130	Personal Finance	3	3-0
ADMINPRF 10106190	Professional Development	1	1-0

Effective 2025-2026
Program Number: 305201

Addiction Studies

A Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
Required Courses			
HUMSVC 10520117	Interviewing	3	3-0
HUMSVC 10520135	Issues in Addiction	3	3-0
HUMSVC 10520106	Orientation to Human Services Populations	3	3-0
HUMSVC 10520141	Introduction to Community Mental Health	3	3-0
HUMSVC 10520142	Psychopharmacology	3	3-0
HUMSVC 10520136	Counseling Addiction	3	3-0
HUMSVC 10520116	Group Work Skills	3	3-0
HUMSVC 10520157	Human Services Counseling Skills	3	3-0

Effective 2025-2026
Program Number: 101066

Administrative Professional

An Associate in Applied Science Degree

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
COMPSOFT 10103121	Microsoft Windows	1	0.33-1.33
COMPSOFT 10103165	Outlook	1	0.33-1.33
ADMINPRF 10106100	Mindset for Success	3	3-0
ADMINPRF 10106107	Business Document Applications	3	1-4
ADMINPRF 10106139	Keyboard Skillbuilding	1	0.33-1.33
ENGLISH 10801195	Written Communication	3	3-0
MATH 10804123	Math with Business Applications	3	3-0
Second Semester			
COMPSOFT 10103145	Access	1	0.33-1.33
COMPSOFT 10103169	Collaboration and Productivity Tools	1	0.33-1.33
ADMINPRF 10106108	Proofreading and Editing	3	2-2
ADMINPRF 10106109	Business Spreadsheet Applications	3	1-4
ADMINPRF 10106121	Office Technology and Procedures	3	2-2
ADMINPRF 10106164	Customer Contact Skills	2	2-0
ADMINPRF 10106231	Business Presentations and Publications	3	1-4
Third Semester			
ACCTG 10101106	Accounting Fundamentals	3	3-0
ADMINPRF 10106106	Business Writing and Research	3	2-2
ADMINPRF 10106172	Administrative Office Management	3	2-2
ADMINPRF 10106190	Professional Development	1	1-0
COMM 10801196	Oral/Interpersonal Communication	3	3-0
SOC 10809172	Introduction to Diversity Studies	3	3-0
Fourth Semester			
BUSADM 10102135	Project Management Fundamentals	3	3-0
ADMINPRF 10106112	Event Planning & Coordination	3	2-2
ADMINPRF 10106126	Software Capstone	3	1-4
ADMINPRF 10106192	Administrative Professional Simulated Practicum	1	0-2
PSYCH 10809199	Psychology Of Human Relations	3	3-0

Effective 2025-2026
Program Number: 305316

Advanced EMT

A Less Than One Year Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
Courses			
EMS 30531391	Advanced Emergency Medical Technician (AEMT) 1	1	1-1
EMS 30531392	Advanced Emergency Medical Technician (AEMT) 2/Clinical	3	2-2
EMS 30531393	Advanced Emergency Medical Technician (AEMT) Field Capstone	1	1-0

Effective 2025-2026
Program Number: 908095CERT

African Studies

A Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
Required Course			
SOCSCI 20809290	Introduction to African and Global Black Studies	3	3-0
Complete nine (9) credits from the listed courses: *(Notes: 20809269 only will count if taken 2023 or more recent as that is when the course started to include African-related content.)*			
ENGLISH 20801214	African American Literature	3	3-0
ENGLISH 20801226	Introduction to African Literature	3	3-0
JOURNAL 20801252	World Issues Journalism	3	3-0
HISTORY 20803224	Early African History	3	3-0
HISTORY 20803243	Modern Africa	3	3-0
POLISCI 20809246	African Politics	3	3-0
SOCSCI 20809269	Energy, Environment and Society	3	3-0
SOCSCI 20809809	Honors - African Studies (2 credits)	2	0-0
SOCSCI 20809909	Honors - African Studies (3 credits)	3	0-0

Effective 2025-2026
Program Number: 100701

Agricultural Equipment Technology

An Associate in Applied Science Degree

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
AGMECH 10070100	Introduction to Agricultural Equipment	2	1-2
AGMECH 10070105	Electricity 1	3	2-2
AGMECH 10070205	Electricity 2	3	1-4
AGMECH 10070115	Planting and Seeding	3	2-2
AGMECH 10070135	Basic Fuel Systems	2	1-2
AGMECH 10070191	Basic Engine Repair	3	1-4
DIESEL 10412110	Metalworking for Heavy-Duty Applications	2	0-4
Second Semester			
AGMECH 10070145	Basic Powertrain	3	0-6
AGMECH 10070193	Mobile Heating & Air Conditioning	2	1-2
AGMECH 10070215	Crop Harvesting	3	2-2
AGMECH 10070125	Hydraulics 1	3	1-4
AGMECH 10070225	Hydraulics 2	3	1-4
ENGLISH 10801195	Written Communication	3	3-0
Third/Summer Session			
AGMECH 10070187	Occupational Experience 1 - Agricultural Equipment Technology Program	2	0-0
Fourth Semester			
AGMECH 10070250	Precision Farming (GPS)	3	1.5-3
AGMECH 10070305	Electronics	3	1-4
AGMECH 10070325	Hydraulics 3	3	1-4
COMM 10801196	Oral/Interpersonal Communication	3	3-0
MATH 10804134	Mathematical Reasoning	3	2-2
Fifth Semester			
AGMECH 10070235	Advanced Fuel Systems/Emissions	2	1-2
AGMECH 10070245	Advanced Powertrain	3	0-6
AGMECH 10070291	Advanced Engines	3	1-4
ECON 10809195	Economics	3	3-0
PSYCH 10809199	Psychology Of Human Relations	3	3-0

Effective 2025-2026
Program Number: 310705

Agriculture Equipment Service Technician

A Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
AGMECH 10070100	Introduction to Agricultural Equipment	2	1-2
AGMECH 10070115	Planting and Seeding	3	2-2
AGMECH 10070105	Electricity 1	3	2-2
AGMECH 10070135	Basic Fuel Systems	2	1-2
AGMECH 10070191	Engine Repair Theory	3	1-4
AGMECH 10070205	Electricity 2	3	1-4
DIESEL 10412110	Metalworking for Heavy-Duty Applications	2	0-4
Second Semester			
AGMECH 10070125	Hydraulics 1	3	1-4
AGMECH 10070145	Basic Powertrain	3	0-6
AGMECH 10070193	Mobile Heating & Air Conditioning	2	1-2
AGMECH 10070215	Crop Harvesting	3	2-2
AGMECH 10070225	Hydraulics 2	3	1-4
ENGLISH 10801195	Written Communication	3	3-0

Effective 2025-2026
Program Number: 106011

Air Conditioning, Heating, and Refrigeration Technology

An Associate in Applied Science Degree

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
MTLFAB 10457100	Metal Repair Techniques	2	0-4
INDMECH 10462102	Introduction to Logic & Troubleshooting	1	0-2
INDMECH 10462321	DCAC 1 DC Theory	1	0-2
INDMECH 10462323	Controls 1	2	0-4
INDMECH 10462329	DCAC 2 AC Theory	1	0-2
HVAC 10601330	Refrigeration Fundamentals	2	0-4
HVAC 10601331	HVAC Installation Basics	1	0-2
HVAC 10601340	Forced Air Heating Systems	2	0-4
MECTEC 10606205	Print Reading for HVAC	1	0-2
MATH 10804107	College Mathematics	3	2-2
Second Semester			
INSAFE 10449100	Safety for Industry	1	0-2
INDMECH 10462106	Mechanisms 1 for Industry	1	0-2
INDMECH 10462325	Controls 2	2	0-4
INDMECH 10462331	DCAC 3 Theory	1	0-2
HVAC 10601304	Industrial Fluid Distribution Systems	2	0-4
HVAC 10601305	Fluid Distribution Systems Lab	1	0-2
HVAC 10601332	Heating and Air Conditioning Advanced	3	0.5-5
HVAC 10601336	EPA 608 Training & Certification	1	0.5-1
HVAC 10601342	Hydronic and Steam Systems	3	0.5-5
Third Semester			
HVAC 10601334	Commercial Refrigeration Systems	3	0.5-5
HVAC 10601370	Building Automations 1	3	0.5-5
HVAC 10601410	Load Calculations, Sizing, and Layout for HVAC	3	1.5-3
ENGLISH 10801195	Written Communication	3	3-0
PHILOS 10809166	Intro to Ethics: Theory & App	3	3-0
Fourth Semester			
INDMECH 10462109	Maintenance Operations 1	1	0-2
INDMECH 10462209	Maintenance Operations 2	1	0-2
HVAC 10601162	HVAC Internship	2	0-0
HVAC 10601362	Industry Competencies	2	0-4
HVAC 10601372	Building Automations 2	3	0.5-5
MECTEC 10606120	2-D CAD (Computer Aided Drafting)	1	1-0
MECTEC 10606121	CAD for MEP Systems	1	0-2
MECTEC 10606122	Introduction to 3D Modeling with REVIT	2	0.5-3
COMM 10801196	Oral/Interpersonal Communication	3	3-0
PSYCH 10809199	Psychology Of Human Relations	3	3-0

Effective 2025-2026
Program Number: 908094CERT

American Politics and Government

A Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
Complete the following:			
POLISCI 10809122	Introduction to American Government	3	3-0
POLISCI 20809222	State and Local Government	3	3-0
Choose one of the following:			
POLISCI 20809227	Political Theory	3	3-0
POLISCI 20809242	Public Policy	3	3-0
POLISCI 20809218	Law and Society	3	3-0
POLISCI 20809223	International Relations	3	3-0
POLISCI 20809245	Gender and Politics	3	3-0

Effective 2025-2026
Program Number: 100015

Arboriculture/Urban Forestry Technician

An Associate in Applied Science Degree

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
COMM 10801196	Oral/Interpersonal Communication	3	3-0
URBNFOR 10001101	Introduction to Arboriculture	2	1-2
URBNFOR 10001102	Plant Health Care Applicator	2	2-0
URBNFOR 10001133	Equipment and Chainsaw Safety and Operation	3	1-4
URBNFOR 10001118	Landscape Plant Identification	2	1-2
URBNFOR 10001124	Fundamentals of Aerial Tree Work	3	1-4
Second Semester			
ENGLISH 10801195	Written Communication	3	3-0
URBNFOR 10001113	Ornamental Plant Health Care for Arboriculture	3	2-2
URBNFOR 10001110	Tree Biology	2	1-2
URBNFOR 10001138	Landscape Management 1	3	2-2
URBNFOR 10001173	Urban Tree Maintenance	2	1-2
URBNFOR 10001128	Arboriculture Lab 1	2	0-4
Third Semester			
PSYCH 10809199	Psychology Of Human Relations	3	3-0
URBNFOR 10001105	Tree Identification, Dendrology & Silvics	3	2-2
URBNFOR 10001149	Ecological Basis for Natural Resources Management	3	3-0
URBNFOR 10001199	Forest, Fisheries, and Wildlife	3	2-2
URBNFOR 10001129	Arboriculture Lab 2	2	0-4
Fourth Semester			
MATH 10804134	Mathematical Reasoning	3	2-2
SOC 10809197	Contemporary American Society	3	3-0
URBNFOR 10001103	Arboriculture	2	1-2
URBNFOR 10001139	Landscape Management 2	3	2-2
URBNFOR 10001198	Soil and Water Resources	3	2-2
URBNFOR 10001130	Arboriculture Lab 3-Capstone	2	0-4

Effective 2025-2026
Program Number: 106141

Architectural Technology

An Associate in Applied Science Degree

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
ARCHT 10614100	Introduction to Architecture	3	2-2
ARCHT 10614121	Construction Materials - Architectural Technology	3	2-2
ARCHT 10614128	Architectural Software 1	4	2.5-3
ARCHT 10614129	Architectural Studio 1	4	3-2
Select a math course at the College Mathematics level or higher. College Algebra is recommended for transfer students.			
MATH 10804107	College Mathematics	3	2-2
Second Semester			
ARCHT 10614106	Architectural Building Codes	3	3-0
ARCHT 10614131	Architectural Professional Practice	3	3-0
ARCHT 10614127	Architectural Software 2	4	2.5-3
ARCHT 10614130	Architectural Studio 2	4	2-4
Select one of the following courses. English 1 is recommended for transfer students.			
ENGLISH 10801195	Written Communication	3	3-0
ENGLISH 20801201	English 1	3	3-0
Third Semester			
ARCHT 10614103	Architectural Software 3	3	2-2
ARCHT 10614109	Architectural Building Structures	3	2-2
ARCHT 10614123	Architectural Studio 3	4	2-4
ARCHT 10614154	Site Design	3	1.5-3
Select one of the following courses. English 2 is recommended for transfer students.			
ENGLISH 10801197	Technical Reporting	3	3-0
COMM 10801196	Oral/Interpersonal Communication	3	3-0
ENGLISH 20801202	English 2	3	3-0
Fourth Semester			
ARCHT 10614101	Architectural Theory 1	2	1-2
ARCHT 10614104	Architectural Software 4	3	2-2
ARCHT 10614107	Architectural Building Detailing	3	2-2
ARCHT 10614145	Architectural Studio 4	4	2-4
Select one of the following courses.			
SOC 10809172	Introduction to Diversity Studies	3	3-0
ECON 10809195	Economics	3	3-0
SOC 10809197	Contemporary American Society	3	3-0
Select one of the following courses.			
PSYCH 10809199	Psychology Of Human Relations	3	3-0
PSYCH 10809198	Introduction to Psychology	3	3-0

Effective 2025-2026
Program Number: 303163

Artisanal Modern Meat Butchery

A Less Than One Year Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
CULARTS 10316101	Principles of Sanitation	1	1-0
CULARTS 10316160	Pasture to Plate	3	1-4
CULARTS 10316161	Protein Identification, Fabrication, and Utilization 1	3	1-4
CULARTS 10316162	Slaughtering	3	1-4
CULARTS 10316166	Mobile Harvest	3	0-6
Second Semester			
CULARTS 10316163	Protein Identification, Fabrication, and Utilization 2	3	1-4
CULARTS 10316167	Charcuterie: Value-Added Products	3	1-4
CULARTS 10316168	Retail Butcher Sales	3	1-4
CULARTS 10316195	Hazard Analysis Critical Control Point (HACCP) for Business	2	2-0

Effective 2025-2026
Program Number: 105431

Associate Degree Nursing (R.N.)

An Associate in Applied Science Degree

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
Nursing Assistant Certification			
Proof of certification as a Nursing Assistant or completion of a Nursing Assistant course is required prior to petitioning. Refer to petition requirements for additional details.			
NURSNA 30543300	Nursing Assistant	3	3.33-1.66
General Education Courses			
The following general education courses are required to successfully graduate from the Nursing-Associate Degree program. Some of these courses are required to petition and others may be completed prior to the start of the program or by the end of the first year of the program. Prospective students should refer to petition requirements and current students should refer to their Degree Progress Report for additional details regarding which general education program requirements must be taken to petition.			
Refer to the Petition tab for additional information about petition pre-requisites.			
Speech must be completed prior to third semester.			
SPEECH 10801198	Speech	3	3-0
ENGLISH 10801195	Written Communication	3	3-0
BIOLOGY 10806177	Gen Anatomy & Physiology	4	3-2
BIOLOGY 10806179	Advanced Anatomy & Physiology	4	3-2
BIOLOGY 10806197	Microbiology-University Medical	4	2-4
SOC 10809197	Contemporary American Society	3	3-0
PSYCH 10809198	Introduction to Psychology	3	3-0
PSYCH 10809188	Developmental Psychology	3	3-0
First Semester			
NURSRN 10543101	Nursing Fundamentals	2	2-0
NURSRN 10543102	Nursing Skills	3	0-6
NURSRN 10543103	Nursing Pharmacology	2	2-0
NURSRN 10543104	Nsg: Intro Clinical Practice	2	0-0
Second Semester			
NURSRN 10543105	Nursing Health Alterations	3	3-0
NURSRN 10543106	Nursing Health Promotion	3	3-0
NURSRN 10543107	Nursing: Clinical Care Across Lifespan	2	0-0
NURSRN 10543108	Nursing: Introduction to Clinical Care Management	2	0-0
Third Semester			
NURSRN 10543109	Nursing: Complex Health Alterations 1	3	3-0
NURSRN 10543110	Nursing: Mental Health Community Concepts	2	2-0
NURSRN 10543111	Nursing: Intermediate Clinical Practice	3	0-0
NURSRN 10543112	Nursing Advanced Skills	1	0-2
Fourth Semester			
NURSRN 10543113	Nursing: Complex Health Alterations 2	3	3-0

NURSRN 10543114	Nursing: Management and Professional Concepts	2	2-0
NURSRN 10543115	Nursing: Advanced Clinical Practice	3	0-0
NURSRN 10543116	Nursing Clinical Transition	2	0-0

Effective 2025-2026
Program Number: 105431-MM

Associate Degree Nursing (R.N.)

[Nursing Completion: Military Medic to ADN]
An Associate in Science Degree

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
General Education			
The following general education courses are required to successfully graduate from the Nursing-Associate Degree program. Some of these courses are required to begin core nursing courses and others may be completed prior to the start of the program or by the end of the first year of the program. Prospective students should refer to Next Steps after Acceptance requirements and current students should refer to their Degree Progress Report for additional details regarding which general education program requirements must be taken to begin core nursing courses.			
ENGLISH 10801195	Written Communication	3	3-0
SPEECH 10801198	Speech	3	3-0
SOC 10809197	Contemporary American Society	3	3-0
BIOLOGY 10806177	Gen Anatomy & Physiology	4	3-2
BIOLOGY 10806179	Advanced Anatomy & Physiology	4	3-2
PSYCH 10809199	Psychology Of Human Relations	3	3-0
PSYCH 10809188	Developmental Psychology	3	3-0
BIOLOGY 10806197	Microbiology	4	2-4
Military Medic Bridge Courses and Classification Requirements			
Students are awarded 7 credits for prior learning obtained from Military Medic classification. Please contact Enrollment Services at EnrollmentServices@madisoncollege for more information on obtaining these credits.			
NRSAD 10543181	Military Medic RN Fundamentals and Pharmacology	2	0-0
NURSRN 10543181	Military Medic RN Fundamentals and Pharmacology	2	0-0
NRSAD 10543182	Military Medic RN Skills Theory	2	0-0
NURSRN 10543182	Military Medic RN Skills Theory	2	0-0
NRSAD 10543184	Military Medic RN Transition to Professional Nursing	1	0-0
NURSRN 10543184	Military Medic RN Transition to Professional Nursing	1	0-0
NRSAD 10543185	Military Medic RN Health Alterations	3	0-0
NURSRN 10543185	Military Medic RN Health Alterations	3	0-0
NRSAD 10543186	Military Medic RN Health Promotions	2	0-0
NURSRN 10543186	Military Medic RN Health Promotions	2	0-0
NRSAD 10543188	Military Medic RN Clinical Practicum	2	0-2
NURSRN 10543188	Military Medic RN Clinical Practicum	2	0-2
Associate Degree Nursing 2nd Year Requirements			
Third Semester			
NURSRN 10543109	Nursing: Complex Health Alterations 1	3	3-0
NURSRN 10543110	Nursing: Mental Health Community Concepts	2	2-0
NURSRN 10543111	Nursing: Intermediate Clinical Practice	3	0-0
NURSRN 10543112	Nursing Advanced Skills	1	0-2
Fourth Semester			
NURSRN 10543113	Nursing: Complex Health Alterations 2	3	3-0

NURSRN 10543114	Nursing: Management and Professional Concepts	2	2-0
NURSRN 10543115	Nursing: Advanced Clinical Practice	3	0-0
NURSRN 10543116	Nursing Clinical Transition	2	0-0

Effective 2025-2026
Program Number: 105431-PA

Associate Degree Nursing (R.N.)

[Nursing Completion: Paramedic to ADN]
An Associate in Applied Science Degree

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
General Education Courses			
The following general education and elective courses are required to successfully graduate from the Nursing-Associate Degree program. Some of these courses are required to petition and others may be completed prior to the start of the program or by the end of the first year of the program. Prospective students should refer to petition requirements and current students should refer to their Degree Progress Report for additional details regarding which general education program requirements must be taken to petition.			
ENGLISH 10801195	Written Communication	3	3-0
BIOLOGY 10806177	Gen Anatomy & Physiology	4	3-2
BIOLOGY 10806179	Advanced Anatomy & Physiology	4	3-2
PSYCH 10809198	Introduction to Psychology	3	3-0
PSYCH 10809188	Developmental Psychology	3	3-0
BIOLOGY 10806197	Microbiology - University Medical	4	2-4
SPEECH 10801198	Speech	3	3-0
SOC 10809197	Contemporary American Society	3	3-0
	Elective	5	
Paramedic Bridge Courses and Licensure Requirements			
NRSAD 10543127	Paramedic to AD Theory 1	3	3-0
NURSRN 10543127	Paramedic to AD Theory 1	3	3-0
NRSAD 10543128	Paramedic to AD Theory 2	3	3-0
NURSRN 10543128	Paramedic to AD Theory 2	3	3-0
NRSAD 10543129	Paramedic to AD Skills	2	0-4
NURSRN 10543129	Paramedic to AD Skills	2	0-4
NRSAD 10543130	Paramedic to RN Clinical	2	0-0
NURSRN 10543130	Paramedic to RN Clinical	2	0-0
Associate Degree Nursing 2nd Year Requirements			
Third Semester			
NURSRN 10543109	Nursing: Complex Health Alterations 1	3	3-0
NURSRN 10543110	Nursing: Mental Health Community Concepts	2	2-0
NURSRN 10543111	Nursing: Intermediate Clinical Practice	3	0-0
NURSRN 10543112	Nursing Advanced Skills	1	0-2
Fourth Semester			
NURSRN 10543113	Nursing: Complex Health Alterations 2	3	3-0
NURSRN 10543114	Nursing: Management and Professional Concepts	2	2-0
NURSRN 10543115	Nursing: Advanced Clinical Practice	3	0-0
NURSRN 10543116	Nursing Clinical Transition	2	0-0

Effective 2025-2026
Program Number: 105431-PN

Associate Degree Nursing (R.N.)

[Nursing Completion: LPN to ADN]
An Associate in Applied Science Degree

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
General Education Courses			
The following general education courses are required to successfully graduate from the Nursing-Associate Degree program. Some of these courses are required to petition and others may be completed prior to the start of the program or by the end of the first year of the program. Prospective students should refer to petition requirements and current students should refer to their Degree Progress Report for additional details regarding which general education program requirements must be taken to petition.			
SPEECH 10801198	Speech	3	3-0
ENGLISH 10801195	Written Communication	3	3-0
SOC 10809197	Contemporary American Society	3	3-0
BIOLOGY 10806177	Gen Anatomy & Physiology	4	3-2
BIOLOGY 10806179	Advanced Anatomy & Physiology	4	3-2
PSYCH 10809198	Introduction to Psychology	3	3-0
PSYCH 10809188	Developmental Psychology	3	3-0
BIOLOGY 10806197	Microbiology-University Medical	4	2-4
Practical Nursing and Licensure Requirements			
First Semester			
NURSPN 31543301	Nursing Fundamentals - Practical Nursing Program	2	4-0
NURSPN 31543302	Nursing Skills - Practical Nursing Program	3	0-6
NURSPN 31543303	Nursing Pharmacology - Practical Nursing Program	2	4-0
NURSPN 31543304	Nursing: Intro to Clinical Practice - Practical Nursing Program	2	0-0
Second Semester			
NURSPN 31543305	Nursing Health Alterations - Practical Nursing Program	3	6-0
NURSPN 31543306	Nursing Health Promotion - Practical Nursing Program	3	6-0
NURSPN 31543307	Nursing: Clinical Care Across the Lifespan - Practical Nursing Program	2	0-0
NURSPN 31543308	Nursing: Intro to Clinical Care Management - Practical Nursing Program	2	0-0
Prior to the Start of Third Semester Courses			
NRSAD 10543164	Orientation Associate Degree Nursing	3	2-2
NURSRN 10543164	Orientation Associate Degree Nursing	3	2-2
Third Semester			
NURSRN 10543109	Nursing: Complex Health Alterations 1	3	3-0
NURSRN 10543110	Nursing: Mental Health Community Concepts	2	2-0
NURSRN 10543111	Nursing: Intermediate Clinical Practice	3	0-0
NURSRN 10543112	Nursing Advanced Skills	1	0-2

Fourth Semester			
NURSRN 10543113	Nursing Complex Health Alterations 2	3	3-0
NURSRN 10543114	Nursing: Management and Professional Concepts	2	2-0
NURSRN 10543115	Nursing: Advanced Clinical Practice	3	0-0
NURSRN 10543116	Nursing Clinical Transition	2	0-0

Effective 2025-2026
Program Number: 902062CERT

Audio Production

A Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
VIDAUD 10206131	Audio Production	3	0-6
VIDAUD 10206153	Audio Project Management	3	2-2
Second Semester			
VIDAUD 10206151	Advanced Audio Production	3	0-6
VIDAUD 10206194	Event Production	3	1-4
VIDAUD 10206144	Audio Internship	1	0-0

Effective 2025-2026
Program Number: 324051

Auto Collision Repair & Refinishing Technician

A Two Year Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
AUTOBODY 32405301	Basic Sheet Metal Repair & Welding Fundamentals	5	0-10
AUTOBODY 32405302	Refinishing 1	5	0-10
AUTOBODY 32405361	Collision Repair/Refinishing Theory 1	3	6-0
Second Semester			
AUTOBODY 32405303	Non-Structural Panel Repair & Glass Servicing	5	0-10
AUTOBODY 32405304	Refinishing 2/Trim & Hardware	5	0-10
AUTOBODY 32405363	Collision Repair and Refinishing Theory 2	3	6-0
Third Semester			
AUTOBODY 32405305	Auto Refinishing/Color Adjustment	5	0-10
AUTOBODY 32405306	Collision Structural Welding & Panel Replacement	5	0-10
AUTOBODY 32405311	Introduction to Airbrushing and Custom Painting	2	1-3
AUTOBODY 32405365	Collision Repair and Refinishing Theory 3	3	6-0
Fourth Semester			
AUTOBODY 32405307	Adv Collision Structural Repair	5	0-10
AUTOBODY 32405308	Collision Plastics/Composites & Adv Refinishing Applications	5	0-10
AUTOBODY 32405321	Advanced Airbrushing and Custom Painting	2	1-3
AUTOBODY 32405334	Collision Damage Analysis and Report Writing	3	6-0

Effective 2025-2026
Program Number: 314051

Auto Collision Repair and Refinish Technician

A One Year Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
AUTOBODY 32405301	Basic Sheet Metal Repair & Welding Fundamentals	5	0-10
AUTOBODY 32405302	Refinishing 1	5	0-10
AUTOBODY 32405361	Collision Repair/Refinishing Theory 1	3	6-0
Second Semester			
AUTOBODY 32405303	Non-Structural Panel Repair & Glass Servicing	5	0-10
AUTOBODY 32405304	Refinishing 2/Trim & Hardware	5	0-10
AUTOBODY 32405363	Collision Repair and Refinishing Theory 2	3	6-0

Effective 2025-2026
Program Number: 324042

Automotive Technician

A Two Year Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
AUTOTEC 10602100	Automotive Fundamentals	2	0-4
AUTOTEC 10602101	Automotive Service Procedures	3	0-6
AUTOTEC 10602124	Automotive Electrical 1 (E1)	3	3-0
AUTOTEC 10602126	Automotive Electrical 2 (E2)	2	0-4
AUTOTEC 10602166	Driveability 1	5	0-10
Second Semester			
MTLFAB 10457100	Metal Repair Techniques	2	0-4
AUTOTEC 10602156	Automotive Heating & Air Conditioning Systems	2	0-4
AUTOTEC 10602157	Technical Braking Systems	5	0-10
AUTOTEC 10602163	Steering and Suspension Systems	5	0-10
Third Semester			
AUTOTEC 10602115	Hybrid and Alternative Fueled Vehicles	2	0-4
AUTOTEC 10602154	Automatic Transmissions	5	0-10
AUTOTEC 10602158	Service Management	1	0-2
AUTOTEC 10602155	Manual Drivetrains & Axles	5	0-10
Fourth Semester			
AUTOTEC 10602150	Internal Combustion Engines	5	0-10
AUTOTEC 10602152	Driveability 2	5	0-10
AUTOTEC 10602162	Automotive Electrical 3 (E3)	2	0-4

Effective 2025-2026
Program Number: 106026

Automotive Technology-Comprehensive

An Associate in Applied Science Degree

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
AUTOTEC 10602100	Automotive Fundamentals	2	0-4
AUTOTEC 10602101	Automotive Service Procedures	3	0-6
AUTOTEC 10602124	Automotive Electrical 1 (E1)	3	3-0
AUTOTEC 10602126	Automotive Electrical 2 (E2)	2	0-4
AUTOTEC 10602156	Automotive Heating and Air Conditioning Systems	2	0-4
AUTOTEC 10602166	Driveability 1	5	0-10
Second Semester			
MTLFAB 10457100	Metal Repair Techniques	2	0-4
AUTOTEC 10602157	Technical Braking Systems	5	0-10
AUTOTEC 10602158	Service Management	1	0-2
AUTOTEC 10602163	Steering and Suspension Systems	5	0-10
ENGLISH 10801195	Written Communication	3	3-0
Third Semester			
AUTOTEC 10602154	Automatic Transmissions	5	0-10
AUTOTEC 10602155	Manual Drivetrains & Axles	5	0-10
AUTOTEC 10602162	Automotive Electrical 3 (E3)	2	0-4
MATH 10804134	Mathematical Reasoning	3	2-2
ECON 10809195	Economics	3	3-0
Fourth Semester			
AUTOTEC 10602115	Hybrid and Alternative Fueled Vehicles	2	0-4
AUTOTEC 10602150	Internal Combustion Engines	5	0-10
AUTOTEC 10602152	Driveability 2	5	0-10
COMM 10801196	Oral/Interpersonal Communication	3	3-0
PSYCH 10809199	Psychology Of Human Relations	3	3-0

Effective 2025-2026
Program Number: 313141

Baking & Decorative Arts

A One Year Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
Prior to Start of Program			
CULARTS 10316101	Principles of Sanitation	1	1-0
First Semester			
BAKING 31314302	Yeast Breads	3	0-6
BAKING 31314306	Bakery Retail	1	0-2
BAKING 31314309	Baking Principles	2	4-0
BAKING 31314315	Intro to Baking	3	0-6
BAKING 31314375	Experimental Baking	1	0-2
BAKING 31314384	Cake Decorating	2	0-4
BAKING 31314372	Chocolate & Sugar Confections	2	0-4
Second Semester			
BAKING 31314311	Baking & Nutrition	1	2-0
BAKING 31314335	Specialty Cakes & Miniatures	3	0-6
BAKING 31314345	Artisan Breads & Breakfast Pastries	3	0-6
BAKING 31314355	Bakery Production	3	0-6
BAKING 31314388	Advanced Cake Decorating	3	0-6

Effective 2025-2026
Program Number: 505025

Barbering Apprentice

Apprenticeship Completion

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
COSMET 50502521	Trichology, Bacteriology, Sterilization and Sanitation	2	4-0
Second Semester			
COSMET 50502522	Hair Cutting, Design and Chemical Services	2	4-0
Third Semester			
COSMET 50502523	Advanced Chemical Services and Salon Business	2	4-0
Fourth Semester			
COSMET 50502525	Facial Anatomy, Skin, Shaving, and State Board Regulations	2	4-0

Effective 2025-2026
Program Number: 303078

Basic Early Childhood Educator

A Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
Required Courses			
EARLYCHL 10307167	ECE: Health, Safety, & Nutrition	3	3-0
EARLYCHL 10307110	ECE: Social Studies, Art, and Music	3	2-2
EARLYCHL 10307188	ECE: Guiding Children's Behavior	3	2-2

Effective 2025-2026
Program Number: 304626

Basic Industrial Power

A Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
Required Courses			
INSAFE 10449100	Safety for Industry	1	0-2
INDMECH 10462104	Fluid Power 1 for Industry	1	0-2
INDMECH 10462105	Fluid Power 2 for Industry	2	0-4
MACHT 10606200	Interpreting Engineering Drawings	2	0-4
ENGLISH 10801195	Written Communication	3	3-0
MATH 10804107	College Mathematics	3	2-2

Effective 2025-2026
Program Number: 304201

Basic Machining

A Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
Courses			
MACHT 10606200	Interpreting Engineering Drawings	2	0-4
MACHT 32420322	Machine Tool 1	4	2-6
MACHT 32420323	Machine Tool 2	5	3-7
MACHT 32420351	Elements of Basic Metrology	2	4-0
MACHT 32420711	Math for the Machine Trades	2	4-0

Effective 2025-2026
Program Number: 500071

Biotechnology Lab Support Assistant Apprentice

Apprenticeship Completion

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
Required Courses			
BIOTECH 10007103	Biotechnology Laboratory Skills for a Regulated Workplace	3	0-6
BIOTECH 10007108	Hazardous Materials - Biotechnology	1	0.5-1

Effective 2025-2026
Program Number: 300071

Biotechnology Laboratory Support Assistant

A Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
Courses			
BIOTECH 10007103	Biotechnology Laboratory Skills for a Regulated Workplace	3	0-6
BIOTECH 10007105	Bioprocess Technology	3	0-6
BIOTECH 10007108	Hazardous Materials – Biotechnology	1	0.5-1
BIOTECH 10007111	Biotechnology Career Seminar	1	1-0
BIOTECH 10007136	Laboratory Math for Biotechnology	1	0-2

Effective 2025-2026
Program Number: 100072

Biotechnology Laboratory Technician

An Associate in Applied Science Degree

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
BIOTECH 10007103	Biotechnology Laboratory Skills for a Regulated Workplace	3	0-6
BIOTECH 10007108	Hazardous Materials - Biotechnology	1	0.5-1
BIOTECH 10007110	Biotechnology Applications	1	1-0
Choose the following course or review degree progress report for transfer options:			
BIOTECH 10007115	General Cell Biology	4	3-2
BIOTECH 10007136	Laboratory Math for Biotechnology	1	0-2
Choose the following course or review degree progress report for transfer options:			
ENGLISH 10801195	Written Communication	3	3-0
Choose the following course or review degree progress report for transfer options:			
CHEM 10806186	Intro to Biochemistry	4	3-2
Second Semester			
BIOTECH 10007104	Chromatography Techniques	3	0-6
BIOTECH 10007105	Bioprocess Technology	3	0-6
BIOTECH 10007111	Biotechnology Career Seminar	1	1-0
BIOTECH 10007135	Applied Chemistry for Biotechnology	4	3-2
Choose the following course or review degree progress report for transfer options:			
BIOTECH 10007174	Applied Microbiology	4	2-4
Choose the following course or review degree progress report for transfer options:			
COMM 10801196	Oral/Interpersonal Communication	3	3-0
Third Semester			
BIOTECH 10007112	Biotechnology Employment Skills	1	1-0
BIOTECH 10007122	Protein Bioseparations Methods	3	0-6
BIOTECH 10007123	Cell Culturing	3	0-6
BIOTECH 10007124	Molecular Biology 1	3	0-6
BIOTECH 10007152	Making Biotech Products in a Quality Environment	2	0-4
Choose the following course or review degree progress report for transfer options:			
SOC 10809197	Contemporary Amer Society	3	3-0
Choose the following course or review degree progress report for transfer options:			
PSYCH 10809199	Psychology Of Human Relations	3	3-0
Fourth Semester			
BIOTECH 10007121	Applied Biochemistry	3	2-2
BIOTECH 10007125	Research Methods in Molecular Biology	3	0-6
BIOTECH 10007126	Occupational Work Experience	3	0-0
Choose the following course or review degree progress report for transfer options:			
ECON 10809195	Economics	3	3-0
	Elective	3	
Recommended Electives			

BIOTECH 10007137	Selected Topics in HPLC	1	0-2
BIOTECH 10007155	Quality Regulations and Standards for Biotechnology	2	2-0

Effective 2025-2026
Program Number: 900071CERT

Biotechnology Post-Baccalaureate

A Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
Courses			
BIOTECH 10007103	Biotechnology Laboratory Skills for a Regulated Workplace	3	0-6
Courses			
In addition, participants choose a minimum of 12 additional credits from the following list:			
BIOTECH 10007104	Chromatography Techniques	3	0-6
BIOTECH 10007105	Bioprocess Technology	3	0-6
BIOTECH 10007117	Advanced Human Stem Cell Methods	3	0-6
BIOTECH 10007118	Introduction to Human Stem Cell Concepts	1	1-0
BIOTECH 10007119	Advanced Human Stem Cell Concepts	1	1-0
BIOTECH 10007121	Applied Biochemistry	3	2-2
BIOTECH 10007122	Protein Bioseparations Methods	3	0-6
BIOTECH 10007123	Cell Culturing	3	0-6
BIOTECH 10007124	Molecular Biology 1	3	0-6
BIOTECH 10007125	Research Methods in Molecular Biology	3	0-6
BIOTECH 10007136	Laboratory Math for Biotechnology	1	0-2
BIOTECH 10007137	Selected Topics in HPLC	1	0-2
BIOTECH 10007152	Making Biotech Products in a Quality Environment	2	0-4
BIOTECH 10007155	Quality Regulations and Standards for Biotechnology	2	2-0
BIOTECH 10007174	Applied Microbiology	4	2-4
BUSADM 10102134	Introduction to Business	3	3-0

Effective 2025-2026
Program Number: 504081

Bricklaying/Masonry Apprentice

Apprenticeship Completion

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
BRCKMSN 50408710	Bricklaying Basics 1st Year	1.50	1.5-1.5
BRCKMSN 50408713	Safety Tools and Equipment	0.50	1-0
Second Semester			
BRCKMSN 50408714	Practical Math for Bricklayers	1.25	1.33-0.88
BRCKMSN 50408721	Quantity Survey for Bricklayers	1	1-1
Third Semester			
BRCKMSN 50408711	Bricklaying Intermediate 2nd Year	1	1-1
BRCKMSN 50408715	Blueprint Reading for Bricklayers	1	1-1
Fourth Semester			
BRCKMSN 50408718	Basic Shop Sketching for Bricklayers	0.50	1-0
BRCKMSN 50408719	Job Planning and Layout for Bricklayers	1	1-1
BRCKMSN 50408720	State and Local Codes for Bricklaying	0.50	1-0
Fifth Semester			
BRCKMSN 50408712	Bricklaying Advanced 3rd Year	1	1-1
BRCKMSN 50408716	Advanced Blueprint Reading for Bricklayers	1	1-1
Sixth Semester			
BRCKMSN 50408717	Materials of Construction for Bricklayers	1	1-1
BRCKMSN 50408722	Computer Basics for Bricklayers	0.50	1-0
BRCKMSN 50408723	Economic Relations for Bricklayers	0.50	1-0

Effective 2025-2026
Program Number: 901454CERT

Building Blocks of Well-Being

A Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
Required Courses			
ADMINPRF 10106100	Mindset for Success	3	3-0
SMLBUS 10145123	Leading Your Life with Emotional Intelligence	3	3-0
SMLBUS 10145131	Mastering Mindfulness: The Power of Living in the Present	1	1-0
SMLBUS 10145132	Mastering Mindfulness: Pathway to Personal Development	1	1-0
SMLBUS 10145133	Mastering Mindfulness: Strength and Self-Reflection	1	1-0

Effective 2025-2026
Program Number: 301025

Business Generalist

A Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
ACCTG 10101111	Accounting 1 - Principles	4	4-0
BUSADM 10102134	Introduction to Business	3	3-0
MATH 10804144	Math of Finance	3	3-0
Second Semester			
MKTG 10104102	Marketing Principles	3	3-0
ADMINPRF 10106109	Business Spreadsheet Applications	3	1-4
ENGLISH 10801195	Written Communication	3	3-0

Effective 2025-2026
Program Number: 101023

Business Management

An Associate in Applied Science Degree

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
ENGLISH 10801195	Written Communication	3	3-0
MATH 10804144	Math of Finance	3	3-0
ACCTG 10101111	Accounting 1 - Principles	4	4-0
BUSADM 10102134	Introduction to Business	3	3-0
HRMGT 10116145	Introduction to Human Resources	3	3-0
Second Semester			
COMM 20810205	Small Group & Interpersonal Communications	3	3-0
PSYCH 10809199	Psychology Of Human Relations	3	3-0
ACCTG 10101118	Management Accounting	4	4-0
BUSADM 10102143	Organizational Management	3	3-0
ADMINPRF 10106109	Business Spreadsheet Applications	3	1-4
Third Semester			
BUSADM 10102135	Project Management Fundamentals	3	3-0
MKTG 10104102	Marketing Principles	3	3-0
FINANCE 10114126	Corporate Finance	3	3-0
Select one of the following courses:			
BUSADM 10102114	Business Communication	3	3-0
BUSADM 10102131	Change Management	3	3-0
Select one of the following three courses:			
BUSADM 10102160	Business Law 1	3	3-0
FINANCE 10114130	Personal Finance	3	3-0
ACCTG 10101113	Accounting 2 - Principles	4	4-0
Fourth Semester			
BUSADM 10102104	Business Statistics	3	3-0
BUSADM 10102132	Strategic Leadership	3	3-0
BUSADM 10102133	Quality Management	3	3-0
ECON 10809195	Economics	3	3-0
	Elective Course	3	0-0

Effective 2025-2026
Program Number: 901453CERT

Business Plan

A Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
Required Courses			
SMLBUS 10145102	Small Business Development	3	3-0
SMLBUS 10145125	Artificial Intelligence (AI) for Small Business Marketing	3	3-0
Choose one of the following courses:			
SMLBUS 10145108	Field Experience	2	1-0
SMLBUS 10145190	Small Business Etiquette and Professionalism	3	3-0
SMLBUS 10145117	Introduction to Entrepreneurship	3	3-0

Effective 2025-2026
Program Number: 901452CERT

Business Startup Basics

A Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
Required Courses:			
ADMINPRF 10106100	Mindset for Success	3	3-0
SMLBUS 10145102	Small Business Development	3	3-0
SMLBUS 10145105	Operations Management	3	3-0
SMLBUS 10145125	Artificial Intelligence (AI) for Small Business Marketing	3	3-0
SMLBUS 10145108	Field Experience	2	1-0

Effective 2025-2026
Program Number: 908096CERT

Business Studies

A Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
Required Courses			
ACCTG 10101244	Financial Accounting	4	4-0
ACCTG 10101118	Management Accounting	4	4-0
Choose Two of the Following Courses			
BUSADM 10102104	Business Statistics	3	3-0
BUSADM 10102134	Introduction to Business	3	3-0
BUSADM 10102143	Organizational Management	3	3-0
MKTG 10104102	Marketing Principles	3	3-0
HRMGT 10116145	Introduction to Human Resources	3	3-0
SOCSCI 20809294	Introduction to Data Analytics	3	3-0

Effective 2025-2026
Program Number: 304204

CNC Setup Technician

A Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
MACHT 10606200	Interpreting Engineering Drawings	2	0-4
MACHT 32420322	Machine Tool 1	4	2-6
MACHT 32420323	Machine Tool 2	5	3-7
MACHT 32420346	Intro to CNC - G-code Programming	2	2-2
MACHT 32420351	Elements of Basic Metrology	2	4-0
MACHT 32420711	Math for the Machine Trades	2	4-0
Second Semester			
MACHT 32420337	Manufacturing w/Solid Modeling-2D	2	4-0
MACHT 32420348	Applied CNC-Conversational and Setup	2	2-2
MACHT 32420390	Fundamentals of Metallurgy	2	4-0

Effective 2025-2026
Program Number: 314092

Cabinetmaking and Millwork

A One Year Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
CABMIL 31409101	Surfaces 1	1	1-1
CABMIL 31409328	Woodworking 1A: Machinery & Methods	2	1-3
CABMIL 31409329	Woodworking 1B: Machinery & Methods	3	1-5
CABMIL 31409331	Woodworking 2: Materials and Processes	5	2-8
CABMIL 31409337	Workplace Safety	1	0-2
CABMIL 31409341	Wood Finishing Applications and Methods	1	1-1
CABMIL 31409342	Laminates 1	1	1-1
CABMIL 31409381	Drawing 1	1	0-2
CABMIL 31409382	Drawing 2	1	0-2
Second Semester			
CABMIL 31409332	Cabinetmaking, Millwork & Furniture 1	5	2-8
CABMIL 31409333	Cabinetmaking, Millwork, and Furniture 2	5	2-8
CABMIL 31409340	Tool & Machine Maintenance	1	1-1
CABMIL 31409345	Wood Finishing Processes and Colorants	1	0-2
CABMIL 31409350	Cabinet Installation	1	0.5-1.5
CABMIL 31409351	Millwork Installation	1	0.5-1.5
CABMIL 31409383	AutoCAD for Cabinet Drawing 1	1	0-2
CABMIL 31409384	AutoCAD for Cabinet Drawing 2	1	0-2

Effective 2025-2026
Program Number: 304102

Carpentry Techniques

A Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
Courses			
CONST 31410301	Introduction to Construction	5	2-8
CONST 31410309	Plan Reading and Drawing	1	1-1
CONST 31410328	Construction Techniques 1	3	2-4
CONST 31410337	Workplace Safety	1	0-2
CONST 31410410	Fundamentals of Construction 1	2	1-3
CONST 31410379	Construction Math	1	2-0

Effective 2025-2026
Program Number: 313071

Child Care Services

A Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
EARLYCHL 10307110	ECE: Social Studies, Art, and Music	3	2-2
EARLYCHL 10307148	ECE: Foundations of Early Childhood Education	3	3-0
EARLYCHL 10307151	ECE: Infant & Toddler Development	3	3-0
EARLYCHL 10307167	ECE: Health, Safety, & Nutrition	3	3-0
EARLYCHL 10307160	ECE: Field Experience 1	3	1.5-0
Second Semester			
EARLYCHL 10307108	ECE: Early Language and Literacy	3	2-2
EARLYCHL 10307179	ECE: Child Development	3	3-0
EARLYCHL 10307188	ECE: Guiding Children's Behavior	3	2-2
EARLYCHL 10307170	ECE: Field Experience 2	3	1.5-0

Effective 2025-2026
Program Number: 106071

Civil Engineering Technology

An Associate in Applied Science Degree

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
CIVILET 10607120	Methods In Civil Engineering	2	2-0
CIVILET 10607125	Intro To CAD for Civil Engineering	2	1-2
CIVILET 10607149	Aggregates And Concrete	2	1-2
CIVILET 10607155	Survey 1	3	1.5-3
MATH 10804107	College Mathematics	3	2-2
PSYCH 10809199	Psychology Of Human Relations	3	3-0
Second Semester			
CIVILET 10607147	Civil Drawing 1	3	1-4
CIVILET 10607156	Survey 2	3	2-2
CIVILET 10607160	Soils	2	1-2
CIVILET 10607178	Statics and Mechanics for Civil Engineering	2	2-0
CIVILET 10607193	Career Development	1	1-0
ENGLISH 10801195	Written Communication	3	3-0
ECON 10809195	Economics	3	3-0
	Intro to Diversity Studies (10-809-172) or Thinking Critically & Creatively (10-809-103) may be taken instead of Economics.	3	
Third Semester			
CIVILET 10607140	Strength of Materials for Civil Engineering	2	2-0
CIVILET 10607148	Civil Drawing 2	2	1-2
CIVILET 10607158	Survey 3	3	1-4
CIVILET 10607172	Stormwater Management	2	1-2
CIVILET 10607177	Legal Elements Engineering	2	2-0
ENGLISH 10801197	Technical Reporting	3	3-0
	Elective	3	
Fourth Semester			
CIVILET 10607133	Estimating	3	2-2
CIVILET 10607161	Project	3	1-0
CIVILET 10607171	Construction Materials	2	1-2
CIVILET 10607179	Intro to Geographical Information Systems (GIS)	2	1-2
CIVILET 10607182	Water Supply and Sewerage	2	1-2
	Elective	3	
Recommended Electives			
CIVILET 10607168	Land Surveying 1	3	3-0
CIVILET 10607175	Land Surveying 2	3	3-0
GENENG 20806295	Introduction to Engineering	3	1-4
	An internship experience may be a consideration for an elective. To explore internship opportunities and how to register for an internship course, please consult the Program Director.	1	

Effective 2025-2026
Program Number: 304103

Construction Essentials

A Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
CONST 31410309	Plan Reading and Drawing	1	1-1
CONST 31410337	Workplace Safety	1	0-2
CONST 31410410	Fundamentals of Construction 1	2	1-3
CONST 31410379	Construction Math	1	2-0

Madison Area Technical College

Effective 2025-2026
Program Number: 314106

Construction and Remodeling

A One Year Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
CONST 31410338	Nailin' It--Success in Construction & Remodeling	1	1-1
CONST 31410301	Introduction to Construction	5	2-8
CONST 31410302	Layout, Foundations and Concrete	2	1-3
CONST 31410309	Plan Reading and Drawing	1	1-1
CONST 31410328	Construction Techniques 1	3	2-4
CONST 31410337	Workplace Safety	1	0-2
CONST 31410379	Construction Math	1	2-0
(Note: Program evening students take 31-410-399 Fundamentals of Construction in place of 31-410-410 and 31-410-411.)			
CONST 31410410	Fundamentals of Construction 1	2	1-3
Second Semester			
CONST 31410308	Construction Industry Codes and Regulations	2	2-2
CONST 31410329	Construction Techniques 2	5	2-8
CONST 31410339	Construction and Remodeling Lab	4	2-6
CONST 31410345	Materials and Estimating 1	1	2-0
(Note: Program evening students take 31-410-399 Fundamentals of Construction in place of 31-410-410 and 31-410-411.)			
CONST 31410411	Fundamentals of Construction 2	1	0-2
Course Selectives (3 credits required)			
	Select 3 courses from the Course Selectives list below. (Recommended during second semester in program.)	3	
CONST 31410363	Building Science and Sustainability	1	2-0
CONST 31410385	Introduction to 3D Computer Assisted Drafting	1	1-1
CONST 31410311	Commercial Construction	1	0-2
CONST 31410310	Materials and Estimating 2	1	2-0
CONST 31410324	Remodeling Techniques	1	1-1

Effective 2025-2026
Program Number: 315021

Cosmetology

A One Year Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
Prior to start of program			
COSMET 10502330	Cosmetology Concepts	1	1-0
First Semester			
COSMET 31502310	Cosmetology Science & Infection Control	3	4-2
COSMET 31502314	Basic Haircutting	3	2-4
COSMET 31502315	Barber Haircutting	1	0-2
COSMET 31502331	Basic Hair Color	4	4-4
COSMET 31502397	Hair Design	2	2-2
Second Semester			
COSMET 31502333	Nail Technology	2	2-2
COSMET 31502335	Aesthetic & Makeup Artistry	2	2-2
COSMET 31502338	Long Hair, Natural Haircare, & Braiding	2	2-2
COSMET 31502441	Advanced Hair Color & Highlighting Techniques	2	1-3
COSMET 31502346	Advanced Haircutting	2	2-2
COSMET 31502360	Planning for Salon Services & Externship	1	2-0
COSMET 31502361	Basic Salon Externship	2	0-0.66
Third Semester			
COSMET 31502337	Chemical Texturizing	2	2-2
COSMET 31502339	Salon Business & Marketing	2	2-2
COSMET 31502358	State Board Review/Wisconsin Laws & Rules	3	2-4
COSMET 31502362	Intermediate Salon Externship	2	0-0
COSMET 31502363	Advanced Salon Externship	2	0-0
COSMET 31502398	Client Relations	1	1-1

Effective 2025-2026
Program Number: 505021

Cosmetology Apprentice

Apprenticeship Completion

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
COSMET 50502521	Trichology, Bacteriology, Sterilization and Sanitation	2	4-0
Second Semester			
COSMET 50502522	Hair Cutting, Design and Chemical Services	2	4-0
Third Semester			
COSMET 50502523	Advanced Chemical Services and Salon Business	2	4-0
Fourth Semester			
COSMET 50502524	Facial Anatomy, Skin & Nail Care, and State Regulations	2	4-0

Madison Area Technical College

Effective 2025-2026
Program Number: 105045

Criminal Justice Studies

An Associate in Applied Science Degree

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
CRIMJUST 10504170	Introduction to Corrections - Criminal Justice	3	3-0
CRIMJUST 10504900	Introduction to Criminal Justice	3	3-0
ENGLISH 10801195	Written Communication	3	3-0
MATH 10804134	Mathematical Reasoning	3	2-2
PSYCH 10809199	Psychology Of Human Relations	3	3-0
Second Semester			
CRIMJUST 10504913	Restorative Justice and Victimology in Criminal Justice	3	3-0
CRIMJUST 10504902	Criminal Law	3	3-0
CRIMJUST 10504914	Juvenile Justice	3	3-0
COMM 10801196	Oral/Interpersonal Communication	3	3-0
SOC 10809197	Contemporary American Society	3	3-0
Third Semester			
CRIMJUST 10504105	Professional Development for Criminal Justice	3	3-0
CRIMJUST 10504906	Criminal Investigation Theory	3	2-2
CRIMJUST 10504909	Foundations of Policing	3	3-0
CRIMJUST 10504911	Interviewing	3	3-0
	Elective	3	
Fourth Semester			
CRIMJUST 10504912	Ethics in Criminal Justice	3	3-0
CRIMJUST 10504143	Criminology for Law Enforcement	3	3-0
CRIMJUST 10504910	Diversity and Criminal Justice	3	3-0
CRIMJUST 10504917	Police Community Relations	3	3-0
CRIMJUST 10504905	Report Writing	3	3-0
Recommended Electives			
Electives must be 10- or 20- level courses. It is recommended to complete this in third semester.			
CRIMJUST 10504180	Internship	3	0-0
CRIMJUST 10504182	Disturbance Resolution Theory	3	3-0

Effective 2025-2026
Program Number: 305042

Criminal Justice-Law Enforcement 720 Academy

A Less Than One Year Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
Courses			
CRIMJUST 30504502	Application of Investigations	1	1-1.11
CRIMJUST 30504507	Application of Traffic Response	3	2-4
CRIMJUST 30504501	Physical Fitness	1	0.27-1.88
CRIMJUST 30504503	Overview of Criminal Justice	1	2.38-0.16
CRIMJUST 30504506	Overview of Investigations	2	3.22-0.77
CRIMJUST 30504500	Overview of Patrol Response	2	2.55-1.72
CRIMJUST 30504510	Overview of Tactics	1	1.33-1.22
CRIMJUST 30504504	Principles of Emergency Vehicle Response	2	0.77-3.22
CRIMJUST 30504508	Principles of Investigations	1	2-0.94
CRIMJUST 30504509	Principles of Tactics	5	0.66-10.11
CRIMJUST 30504505	Sensitive Crimes	2	3.44-0.55

Effective 2025-2026
Program Number: 103161

Culinary Arts

An Associate in Applied Science Degree

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
Prior to Start of Program:			
CULARTS 10316101	Principles of Sanitation	1	1-0
	OR ServSafe Certification	1	
First Semester			
CULARTS 10316106	Food Theory	2	2-0
CULARTS 10316108	Culinary Baking Fundamentals	1	1-0
CULARTS 10316111	Professional Cooking 1	4	0-8
CULARTS 10316115	Culinary Baking Lab	2	0-4
ENGLISH 10801195	Written Communication	3	3-0
Second Semester			
CULARTS 10316121	Professional Cooking 2	4	0-8
CULARTS 10316133	Garde Manger/Decorative Foods	2	0-4
CULARTS 10316139	Catering	2	2-0
CULARTS 10316152	Nutrition	1	1-0
MATH 10804123	Math with Business Applications	3	3-0
COMM 10801196	Oral/Interpersonal Communication	3	3-0
Third (Summer) Term			
CULARTS 10316194	Culinary Internship	2	0-0
Fourth Semester			
CULARTS 10316120	Advanced Skills Lab 1	4	0-8
CULARTS 10316134	Cost Control	3	3-0
CULARTS 10316132	Waitstaff Training	2	0-4
CULARTS 10316158	Food Purchasing Analysis	1	1-0
ACCTG 10101106	Accounting Fundamentals	3	3-0
SOC 10809197	Contemporary Amer Society	3	3-0
	Elective	2	0-0
Fifth Semester			
HOSPT 10109125	Hospitality Leadership	3	3-0
CULARTS 10316130	Advanced Skills Lab 2	4	0-8
CULARTS 10316135	Dining Room Operations	2	0-4
CULARTS 10316140	Menu Planning	1	1-0
PSYCH 10809199	Psychology Of Human Relations	3	3-0
	Elective	1	0-0
Recommended Electives			
CULARTS 10316178	Americana Cuisine	2	0-4
CULARTS 10316189	Breakfast Cookery	1	0-2
CULARTS 10314130	Dessert Plating	2	0-4

Effective 2025-2026
Program Number: 613161PATH

Culinary Fundamentals

A Career Pathway Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
Prior to Start of Program Course Requirement			
CULARTS 10316101	Principles of Sanitation	1	1-0
Program Course Requirements			
CULARTS 10316106	Food Theory	2	2-0
CULARTS 10316108	Culinary Baking Fundamentals	1	1-0
CULARTS 10316111	Professional Cooking 1	4	0-8
CULARTS 10316115	Culinary Baking Lab	2	0-4

Effective 2025-2026
Program Number: 313162

Culinary Production Specialist

A Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
Prior to Start of Program			
CULARTS 10316101	Principles of Sanitation	1	1-0
First Semester			
ENGLISH 10801195	Written Communication	3	3-0
CULARTS 10316106	Food Theory	2	2-0
CULARTS 10316108	Culinary Baking Fundamentals	1	1-0
CULARTS 10316111	Professional Cooking 1	4	0-8
CULARTS 10316115	Culinary Baking Lab	2	0-4
Second Semester			
MATH 10804123	Math with Business Applications	3	3-0
CULARTS 10316121	Professional Cooking 2	4	0-8
CULARTS 10316133	Garde Manger/Decorative Foods	2	0-4
CULARTS 10316139	Catering	2	2-0
CULARTS 10316152	Nutrition	1	1-0
Third/Summer Semester			
CULARTS 10316194	Culinary Internship	2	0-0

Effective 2025-2026
Program Number: 501512

Cybersecurity Analyst

Apprenticeship Completion

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
ITSECUR 10151102	IT Security Awareness	1	0.5-1
ITTECSUP 10154104	A+ Hardware Essentials	3	2-2
Second Semester			
ITNET 10150121	Intro to Cisco Networking	3	2-2
Third Semester			
ITTECSUP 10154171	Windows Server 1	3	2-2
Fourth Semester			
ITSECUR 10151137	Intrusion Detection	3	2-2

Effective 2025-2026
Program Number: 501561

Data Analyst Apprentice

Apprenticeship Completion

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
ITDATA 10156124	Introduction to Databases	3	2-2
Second Semester			
ITDATA 10156125	SQL Database Programming	3	2-2
Third Semester			
ITDATA 10156133	Data Visualization	3	2-2
Fourth Semester			
ITDATA 10156135	Data Engineering	3	2-2

Effective 2025-2026
Program Number: 908092CERT

Data Analytics

A Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
Required Courses			
SOCSCI 20809294	Introduction to Data Analytics	3	3-0
SOC 20809291	Technology and Society	3	3-0
SOCSCI 20809230	Statistics for the Social Sciences	4	4-0
COMPSCI 20804217	Introduction to Programming in Python	3	2-2

Effective 2025-2026
Program Number: 305082

Dental Assistant

A Less Than One Year Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
DENTHYG 10508101	Dental Health Safety	1	0-2
DENTAST 31508302	Dental Chairside	5	4-6
DENTAST 31508303	Dental Materials	2	2-2
DENTAST 31508304	Dental & General Anatomy	2	4-0
DENTAST 31508305	Applied Dental Radiography	2	2-2
DENTAST 31508312	Dental Assistant Clinical Lab	1	0-2
DENTAST 31508313	Dental Assistant Clinical Experience	2	2-0
DENTAST 31508307	Dental Assistant Professional	1	2-0

Effective 2025-2026
Program Number: 105081

Dental Hygienist

An Associate in Applied Science Degree

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
Pre-Dental Hygienist Courses			
BIOLOGY 10806177	Gen Anatomy & Physiology	4	3-2
CHEM 10806186	Intro to Biochemistry	4	3-2
BIOLOGY 10806197	Microbiology-University Medical	4	2-4
Summer Semester			
The following must be taken prior to fall/first semester:			
DENTHYG 10508101	Dental Health Safety	1	0-2
First Semester			
DENTHYG 10508102	Oral Anatomy, Embry, Histology	4	4-0
DENTHYG 10508103	Dental Radiography	2	1-2
DENTHYG 10508105	Dental Hygiene Process 1	4	2-0
Second Semester			
DENTHYG 10508106	Dental Hygiene Process 2	4	2-0
DENTHYG 10508108	Periodontology	3	3-0
DENTHYG 10508109	Cariology	1	1-0
DENTHYG 10508110	Nutrition and Dental Health	2	2-0
DENTHYG 10508113	Dental Materials	2	1-2
PSYCH 10809198	Introduction to Psychology	3	3-0
	Elective	1	0-0
Third Semester			
DENTHYG 10508111	General and Oral Pathology	3	3-0
DENTHYG 10508112	Dental Hygiene Process 3	5	1-0
DENTHYG 10508114	Dental Pharmacology	2	2-0
DENTHYG 10508118	Dental Anxiety and Pain Management	2	1.5-1
SOC 10809196	Introduction to Sociology	3	3-0
Fourth Semester			
DENTHYG 10508107	Dental Hygiene Ethics & Profes	1	1-0
DENTHYG 10508115	Community Dental Health	2	2-0
DENTHYG 10508117	Dental Hygiene Process 4	4	0-0
ENGLISH 10801195	Written Communication	3	3-0
SPEECH 10801198	Speech	3	3-0
PSYCH 10809188	Developmental Psychology	3	3-0

Effective 2025-2026
Program Number: 314126

Diesel Heavy Equipment Technician

A One Year Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
Pre-Program Course			
A grade of C or better in Diesel Shop Skills Fundamentals is required as pre-requisite to courses in the program.			
DIESEL 10412100	Diesel Shop Skills Fundamentals	2	1-2
First Semester			
DIESEL 10412110	Metalworking for Heavy-Duty Applications	2	0-4
DIESEL 10412137	Preventive Maintenance	4	3-2
DIESEL 10412144	Fundamental Diesel Electrical/Electronics Systems	3	0-6
DIESEL 10412145	Electrical/Electronics Systems Diagnostics	3	0-6
Second Semester			
DIESEL 10412112	Mobile Hydraulics	3	2-2
DIESEL 10412113	Advanced Hydraulics and Hydrostatics	3	1-4
DIESEL 10412255	Off-Highway Powertrain Systems	3	0-6
Third/Summer Semester			
DIESEL 10412190	Diesel Equipment Laboratory Experience 1	1	0-2
Fourth Semester			
DIESEL 10412184	Diesel Engine Technology	2	0-4
DIESEL 10412185	Diesel Engine Repair	4	0-8
DIESEL 10412189	Heavy Duty Emission Control Systems	3	1-4
DIESEL 10412355	Advanced Off-Highway Electronics and Powertrain Systems	3	0-6
Fifth Semester			
DIESEL 10412125	Cab Climate Control and Refrigeration Systems	3	1-4
DIESEL 10412138	Diesel Shop Management	2	2-0
DIESEL 10412175	Fuel Systems	2	0-4
DIESEL 10412177	Diesel Engine Diagnostics	3	0-6
DIESEL 10412188	Electronic Control Systems	3	0-6

Effective 2025-2026
Program Number: 104124

Diesel Heavy Equipment Technology

An Associate in Science Degree

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
Pre-Program Course			
A grade of C or higher in Diesel Shop Skills Fundamentals is required as a pre-requisite to courses in the program.			
DIESEL 10412100	Diesel Shop Skills Fundamentals	2	1-2
First Semester			
DIESEL 10412110	Metalworking for Heavy-Duty Applications	2	0-4
DIESEL 10412137	Preventive Maintenance	4	3-2
DIESEL 10412144	Fundamental Diesel Electrical/Electronics Systems	3	0-6
DIESEL 10412145	Electrical/Electronics Systems Diagnostics	3	0-6
MATH 10804107	College Mathematics	3	2-2
Second Semester			
DIESEL 10412112	Mobile Hydraulics	3	2-2
DIESEL 10412113	Advanced Hydraulics and Hydrostatics	3	1-4
DIESEL 10412255	Off-Highway Powertrain Systems	3	0-6
ENGLISH 10801195	Written Communication	3	3-0
SOC 10809197	Contemporary American Society	3	3-0
Third Semester (Summer)			
DIESEL 10412190	Diesel Equipment Laboratory Experience 1	1	0-2
DIESEL 10412195	Occupational Experience 1 - Diesel	2	0-0
Fourth Semester			
DIESEL 10412125	Cab Climate Control and Refrigeration Systems	3	1-4
DIESEL 10412138	Diesel Shop Management	2	2-0
DIESEL 10412175	Fuel Systems	2	0-4
DIESEL 10412177	Diesel Engine Diagnostics	3	0-6
DIESEL 10412188	Electronic Control Systems	3	0-6
COMM 10801196	Oral/Interpersonal Communication	3	3-0
Fifth Semeseter			
DIESEL 10412184	Diesel Engine Technology	2	0-4
DIESEL 10412185	Diesel Engine Repair	4	0-8
DIESEL 10412189	Heavy Duty Emission Control Systems	3	1-4
DIESEL 10412355	Advanced Off-Highway Electronics and Powertrain Systems	3	0-6
PSYCH 10809199	Psychology Of Human Relations	3	3-0

Effective 2025-2026
Program Number: 314128

Diesel Medium and Heavy Truck Technician

A One Year Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
Pre-Program Course			
A grade of C or better in Diesel Shop Skills Fundamentals is required as pre-requisite to courses in the program.			
DIESEL 10412100	Diesel Shop Skills Fundamentals	2	1-2
First Semester			
DIESEL 10412110	Metalworking for Heavy-Duty Applications	2	0-4
DIESEL 10412155	Heavy Duty Drivetrains	4	0-8
DIESEL 10412164	Brake and Suspension Systems	4	0-8
Second Semester			
DIESEL 10412137	Preventive Maintenance	4	3-2
DIESEL 10412144	Fundamental Diesel Electrical/Electronics Systems	3	0-6
DIESEL 10412145	Electrical/Electronics Systems Diagnostics	3	0-6
Third/Summer Semester			
DIESEL 10412139	Vehicle Inspection	2	1-2
Fourth Semester			
DIESEL 10412125	Cab Climate Control and Refrigeration Systems	3	1-4
DIESEL 10412138	Diesel Shop Management	2	2-0
DIESEL 10412175	Fuel Systems	2	0-4
DIESEL 10412177	Diesel Engine Diagnostics	3	0-6
DIESEL 10412188	Electronic Control Systems	3	0-6
Fifth Semester			
DIESEL 10412112	Mobile Hydraulics	3	2-2
DIESEL 10412184	Diesel Engine Technology	2	0-4
DIESEL 10412185	Diesel Engine Repair	4	0-8
DIESEL 10412189	Heavy Duty Emission Control Systems	3	1-4

Effective 2025-2026
Program Number: 104123

Diesel Medium and Heavy Truck Technology

An Associate in Applied Science Degree

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
Pre-Program Course			
A grade of C or higher in Diesel Shop Skills Fundamentals is required as a pre-requisite to courses in the program.			
DIESEL 10412100	Diesel Shop Skills Fundamentals	2	1-2
First Semester			
DIESEL 10412110	Metalworking for Heavy-Duty Applications	2	0-4
DIESEL 10412137	Preventive Maintenance	4	3-2
DIESEL 10412144	Fundamental Diesel Electrical/Electronics Systems	3	0-6
DIESEL 10412145	Electrical/Electronics Systems Diagnostics	3	0-6
MATH 10804107	College Mathematics	3	2-2
Second Semester			
DIESEL 10412112	Mobile Hydraulics	3	2-2
DIESEL 10412155	Heavy Duty Drivetrains	4	0-8
DIESEL 10412164	Brake and Suspension Systems	4	0-8
ENGLISH 10801195	Written Communication	3	3-0
SOC 10809197	Contemporary American Society	3	3-0
Third Semester (Summer)			
DIESEL 10412139	Vehicle Inspection	2	1-2
DIESEL 10412195	Occupational Experience 1 - Diesel	2	0-0
Fourth Semester			
DIESEL 10412184	Diesel Engine Technology	2	0-4
DIESEL 10412185	Diesel Engine Repair	4	0-8
DIESEL 10412189	Heavy Duty Emission Control Systems	3	1-4
COMM 10801196	Oral/Interpersonal Communication	3	3-0
Fifth Semester			
DIESEL 10412125	Cab Climate Control and Refrigeration Systems	3	1-4
DIESEL 10412138	Diesel Shop Management	2	2-0
DIESEL 10412175	Fuel Systems	2	0-4
DIESEL 10412177	Diesel Engine Diagnostics	3	0-6
DIESEL 10412188	Electronic Control Systems	3	0-6
PSYCH 10809199	Psychology Of Human Relations	3	3-0

Effective 2025-2026
Program Number: 311045

Digital Marketing

A Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
MKTG 10104102	Marketing Principles	3	3-0
MKTG 10104114	Social Media Marketing	3	3-0
MKTG 10104164	Marketing Digital Design	3	3-0
MKTG 10104125	Advertising Principles	3	3-0
ADMINPRF 10106168	Microsoft Office for Business Applications	3	1-4
Second Semester			
MKTG 10104103	Marketing Research & Analytics	3	3-0
MKTG 10104115	Capstone Campaign	3	3-0
MKTG 10104126	Introduction to Public Relations	3	3-0
MKTG 10104162	Advanced Social Marketing Technologies	3	3-0
MKTG 10104169	Digital Marketing	3	3-0

Effective 2025-2026
Program Number: 103071

Early Childhood Education

An Associate in Applied Science Degree

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
EARLYCHL 10307148	ECE: Foundations of Early Childhood Education	3	3-0
EARLYCHL 10307151	ECE: Infant & Toddler Dev	3	3-0
EARLYCHL 10307110	ECE: Social Studies, Art, and Music	3	2-2
EARLYCHL 10307167	ECE: Health, Safety, & Nutrition	3	3-0
EARLYCHL 10307160	ECE: Field Experience 1	3	1.5-0
Second Semester			
EARLYCHL 10307108	ECE: Early Language and Literacy	3	2-2
EARLYCHL 10307179	ECE: Child Development	3	3-0
EARLYCHL 10307188	ECE: Guiding Child Behavior	3	2-2
EARLYCHL 10307170	ECE: Field Experience 2	3	1.5-0
ENGLISH 10801195	Written Communication	3	3-0
Third Semester			
EARLYCHL 10307112	ECE: STEM (Science, Technology, Engineering, and Mathematics)	3	1-0
EARLYCHL 10307190	ECE: Field Experience 3	3	1-0
EARLYCHL 10307195	ECE: Family & Community Relations	3	3-0
MATH 10804134	Mathematical Reasoning	3	2-2
SOC 10809172	Introduction to Diversity Studies	3	3-0
Fourth Semester			
EARLYCHL 10307187	ECE: Children w diff Abilities	3	3-0
EARLYCHL 10307210	ECE: Field Experience 4	3	1-0
COMM 10801196	Oral/Interpersonal Communication	3	3-0
SOC 10809197	Contemporary Amer Society	3	3-0
PSYCH 10809199	Psychology Of Human Relations	3	3-0

Effective 2025-2026
Program Number: 903073CERT

Early Childhood Education Administrator

A Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
EARLYCHL 10307204	ECE: Child Care Admin and Supervision	3	3-0
EARLYCHL 10307181	ECE: Child Care Operations Management	3	3-0
Second Semester			
EARLYCHL 10307182	ECE: Child Care Financial Management	3	3-0
EARLYCHL 10307184	ECE: Child Care External Environment	3	3-0
Third Semester			
EARLYCHL 10307185	ECE: Child Care Best Practices	3	3-0
EARLYCHL 10307186	ECE: Child Care Administrator Capstone	3	3-0

Effective 2025-2026
Program Number: 903076CERT

Early Childhood Education Diversity Credential

A Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
Courses			
First 8 weeks of Fall Term			
EARLYCHL 10307260	ECE: Building a Foundation for Understanding Diversity	3	3-0
Second 8 weeks of Fall Term			
EARLYCHL 10307261	ECE: Building on the Assets of Families and Cultures	3	3-0
First 8 weeks of Spring Term			
EARLYCHL 10307262	ECE: Culturally Appropriate Interactions and Guidance	3	3-0
Second 8 weeks of Spring Term			
This is the capstone course to be taken as the last class in the sequence.			
EARLYCHL 10307263	ECE: Authentic Curriculum that Connects with Children	3	3-0

Effective 2025-2026
Program Number: 903077CERT

Early Childhood Education Inclusion Credential

A Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
Courses			
First 8 weeks of Fall Term			
EARLYCHL 10307187	ECE: Children with Differing Abilities	3	3-0
Second 8 weeks of Fall Term			
EARLYCHL 10307140	ECE: Behavior and Emotional Challenges	3	3-0
First 8 weeks of Spring Term			
EARLYCHL 10307141	ECE: Special Healthcare Needs	3	3-0
Second 8 weeks of Spring Term			
This is the capstone course to be taken as the last class in the sequence.			
EARLYCHL 10307142	ECE: Inclusion Capstone Family and Team Centered Practices	3	3-0

Effective 2025-2026
Program Number: 903072CERT

Early Childhood Education Infant & Toddler

A Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
Courses			
EARLYCHL 10307151	ECE: Infant & Toddler Development	3	3-0
EARLYCHL 10307169	ECE: Infant Toddler Group Care	3	3-0
EARLYCHL 10307195	ECE: Family & Community Relations	3	3-0
EARLYCHL 10307115	ECE: Infant Toddler Capstone	3	3-0

Effective 2025-2026
Program Number: 303077

Early Childhood Education Preschool

A Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
EARLYCHL 10307110	ECE: Social Studies, Art, and Music	3	2-2
EARLYCHL 10307167	ECE: Health, Safety, & Nutrition	3	3-0
EARLYCHL 10307148	ECE: Foundations of Early Childhood Education	3	3-0
Second Semester			
EARLYCHL 10307108	ECE: Early Language and Literacy	3	2-2
EARLYCHL 10307179	ECE: Child Development	3	3-0
EARLYCHL 10307188	ECE: Guiding Child Behavior	3	2-2

Effective 2025-2026
Program Number: 504133

Electrical Construction Apprentice

Apprenticeship Completion

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
ELEC-BLD 50413530	Tech Electrical 1	4	6-2
Second Semester			
ELEC-BLD 50413531	Tech Electrical 2	4	6-2
Third Semester			
ELEC-BLD 50413532	Tech Electrical 3	2	2-2
Fourth Semester			
ELEC-BLD 50413533	Tech Electrical 4	2	2-2
Fifth Semester			
ELEC-BLD 50413534	Tech Electrical 5	2	3-1
Sixth Semester			
ELEC-BLD 50413535	Tech Electrical 6	2	3-1
Seventh Semester			
ELEC-BLD 50413570	Tech Electrical 7	2	2-2
Eighth Semester			
ELEC-BLD 50413571	Tech Electrical 8	2	2-2

Effective 2025-2026
Program Number: 106621

Electrical Engineering Technology

An Associate in Applied Science Degree

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
It is strongly recommended to meet with a faculty advisor upon admission to the program and prior to enrolling in courses.			
First Semester			
ELECT 10605108	Certified IPC Application Specialist (CIS) J-STD-001	1	0.5-1
ELECT 10605112	AC/DC Electronics 1	3	1-4
ELECT 10605113	Analog Circuit Techniques	3	1-4
ELECT 10605118	Digital Circuit Techniques	3	1-4
ENGLISH 10801195	Written Communication	3	3-0
PSYCH 10809199	Psychology Of Human Relations	3	3-0
Second Semester			
ELECT 10605115	Analog Circuit Principles	3	1-4
ELECT 10605119	Digital Circuit Principles	3	1-4
ELECT 10605173	Embedded Programming	3	1-4
ELECENG 10662120	Digital Circuit Design and VHDL	1	0.5-1
MATH 20804231	Calculus and Analytic Geometry 1	5	5-0
Choose from one of the following courses (consult program faculty advisor for appropriate transferability, terms offered, and pre-requisites): *[Traditional program students take AC/DC 2 in the second semester; transfer track students instead take Circuit Modeling 1 in the third (fall) semester.]*			
ELECT 10605114	AC/DC Electronics 2	3	1-4
GENENG 10662121	Circuit Modeling 1	3	1-4
Third Semester			
ELECT 10605143	Motors and Control Circuits	3	1-4
ELECT 10605176	Microcontrollers	3	1-4
MATH 20804232	Calculus and Analytic Geometry 2	5	5-0
PHILOS 20809264	Introduction to Logic and Critical Thinking	3	3-0
Choose from one of the following courses (consult program faculty advisor for appropriate transferability, terms offered, and pre-requisites): *[Traditional program students continue with Advanced Circuits in the third semester; transfer track students continue with Circuit Modeling 2 in the fourth (spring) semester.]*			
ELECENG 10662105	Advanced Circuits	3	1-4
GENENG 10662221	Circuit Modeling 2	4	2-4
Fourth Semester			
ELECENG 10662117	Analog Circuit Design	1	0.5-1
ELECT 10605178	Networks, Interfacing and Programming	3	1-4
ELECENG 10662106	Advanced Electronics	3	1-4
ENGLISH 10801197	Technical Reporting	3	3-0
PHYSICS 20806223	University Physics 1-Calculus-Based	5	2-6

Effective 2025-2026
Program Number: 304621

Electrical Maintenance

A Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
Courses			
INSAFE 10449100	Safety for Industry	1	0-2
INDMECH 10462321	DCAC 1 DC Theory	1	0-2
INDMECH 10462323	Controls 1	2	0-4
INDMECH 10462329	DCAC 2 AC Theory	1	0-2
MACHT 10606200	Interpreting Engineering Drawings	2	0-4
ENGLISH 10801195	Written Communication	3	3-0
MATH 10804107	College Mathematics	3	2-2

Effective 2025-2026
Program Number: 504139

Electrician Apprentice (ABC)

Apprenticeship Completion

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
ELEC-BLD 50413580	Trade Electrical Semester 1	2	3-1
Second Semester			
ELEC-BLD 50413581	Trade Electrical Semester 2	2	3-1
Third Semester			
ELEC-BLD 50413582	Trade Electrical Semester 3	2	3-1
Fourth Semester			
ELEC-BLD 50413583	Trade Electrical Semester 4	2	3-1
Fifth Semester			
ELEC-BLD 50413584	Trade Electrical Semester 5	2	3-1
Sixth Semester			
ELEC-BLD 50413585	Trade Electrical Semester 6	2	3.4-0.6
Seventh Semester			
ELEC-BLD 50413586	Trade Electrical Semester 7	2	3-1
Eighth Semester			
ELEC-BLD 50413587	Trade Electrical Semester 8	2	3-1

Effective 2025-2026
Program Number: 314131

Electricity

A One Year Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
ELEC-BLD 10413769	Introduction to the National Electrical Code	2	2-0
ELEC-BLD 10413770	Introduction to Residential Wiring Methods	2	0-4
ELEC-BLD 10413771	Commercial Wiring Techniques	2	0.5-3
INDMECH 10462321	DCAC 1 DC Theory	1	0-2
INDMECH 10462329	DCAC 2 AC Theory	1	0-2
CONST 31410337	Workplace Safety	1	0-2
MATH 10804107	College Mathematics	3	2-2
Second Semester			
ELEC-BLD 10413772	Motors and Transformers	2	2-0
ELEC-BLD 10413773	Electric Motor Control	2	0.5-3
ELEC-BLD 10413774	Electrical Safety Related Work Practices - 70E	1	1-0
ELEC-BLD 10413775	Intermediate National Electrical Code	2	2-0
ELEC-BLD 10413776	Trends in Electricity	1	1-0
CONST 31410309	Plan Reading and Drawing	1	1-1
ENGLISH 10801195	Written Communication	3	3-0
SOC 10809172	Introduction to Diversity Studies	3	3-0

Effective 2025-2026
Program Number: 306202

Electro-Mechanical & Engineering Foundations

A Less Than One Year Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
INSAFE 10449100	Safety for Industry	1	0-2
INDMECH 10462102	Introduction to Logic & Troubleshooting	1	0-2
INDMECH 10462104	Fluid Power 1 for Industry	1	0-2
INDMECH 10462323	Controls 1	2	0-4
HVAC 10601330	Refrigeration Fundamentals	2	0-4
MATH 10804107	College Mathematics	3	2-2
GENENG 20806294	Engineering Seminar	1	0.5-1
Second Semester			
MTLFAB 10457100	Metal Repair Techniques	2	0-4
GENENG 10605270	AC/DC Circuit Techniques and Principles	3	1-4
GENENG 10606231	Introductory Engineering Graphics	3	1-4
EMTEC 10620100	Introduction to PLCs	1	0-2
ENGLISH 10801195	Written Communication	3	3-0

Effective 2025-2026
Program Number: 106201

Electro-Mechanical Technology

An Associate in Applied Science Degree

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
INSAFE 10449100	Safety for Industry	1	0-2
MTLFAB 10457100	Metal Repair Techniques	2	0-4
INDMECH 10462102	Introduction to Logic & Troubleshooting	1	0-2
INDMECH 10462104	Fluid Power 1 for Industry	1	0-2
INDMECH 10462105	Fluid Power 2 for Industry	2	0-4
INDMECH 10462323	Controls 1	2	0-4
INDMECH 10462321	DCAC 1 DC Theory	1	0-2
INDMECH 10462329	DCAC 2 AC Theory	1	0-2
MACHT 10606200	Interpreting Engineering Drawings	2	0-4
MATH 10804107	College Mathematics	3	2-2
Second Semester			
INDMECH 10462106	Mechanisms 1 for Industry	1	0-2
INDMECH 10462107	Mechanisms 2 for Industry	1	0-2
INDMECH 10462109	Maintenance Operations 1	1	0-2
INDMECH 10462209	Maintenance Operations 2	1	0-2
INDMECH 10462331	DCAC 3 Theory	1	0-2
INDMECH 10462325	Controls 2	2	0-4
MECTEC 10606202	Introduction to CAD-2D	2	0.5-3
EMTEC 10620100	Introduction to PLCs	1	0-2
EMTEC 10620106	Robotics 1 - Basic Operations for Industry	1	0-2
EMTEC 10620112	Introduction to Integration	2	0-4
ENGLISH 10801195	Written Communication	3	3-0
Third Semester			
MECTEC 10606204	Introduction to CAD-3D	2	0-4
EMTEC 10620101	Programmable Logic Controllers 1	3	0-6
EMTEC 10620104	Sensors, Vision, and Safety Systems	3	0-6
EMTEC 10620108	Robotics 2 - Programming for Industry	2	0-4
EMTEC 10620114	Integration 1	4	0-8
PSYCH 10809199	Psychology Of Human Relations	3	3-0
Fourth Semester			
EMTEC 10620102	Programmable Logic Controllers 2	3	0-6
EMTEC 10620110	Robotics 3 - Vision 2D for Industry	2	0-4
EMTEC 10620116	Integration 2	4	0-8
COMM 10801196	Oral/Interpersonal Communication	3	3-0
PHILOS 10809166	Intro to Ethics: Theory & App	3	3-0

Effective 2025-2026
Program Number: 316052

Electronic Service Technician

A Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
ELECT 10605107	Certified IPC Application Specialist (CIS) A-610	1	1-0
ELECT 10605108	Certified IPC Application Specialist (CIS) J-STD-001	1	0.5-1
ELECT 10605112	AC/DC Electronics 1	3	1-4
ELECT 10605113	Analog Circuit Techniques	3	1-4
ELECT 10605118	Digital Circuit Techniques	3	1-4
ELECT 10605172	Applied Electronic Math 2	2	1-2
ENGLISH 10801195	Written Communication	3	3-0
Second Semester			
ELECT 10605114	AC/DC Electronics 2	3	1-4
ELECT 10605115	Analog Circuit Principles	3	1-4
ELECT 10605119	Digital Circuit Principles	3	1-4
ELECT 10605123	Embedded Device Concepts	3	1-4

Effective 2025-2026
Program Number: 106051

Electronics

An Associate in Applied Science Degree

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
ELECT 10605107	Certified IPC Application Specialist (CIS) A-610	1	1-0
ELECT 10605108	Certified IPC Application Specialist (CIS) J-STD-001	1	0.5-1
ELECT 10605112	AC/DC Electronics 1	3	1-4
ELECT 10605118	Digital Circuit Techniques	3	1-4
ELECT 10605123	Embedded Device Concepts	3	1-4
ELECT 10605172	Applied Electronic Math 2	2	1-2
ENGLISH 10801195	Written Communication	3	3-0
Second Semester			
ELECT 10605113	Analog Circuit Techniques	3	1-4
ELECT 10605114	AC/DC Electronics 2	3	1-4
ELECT 10605119	Digital Circuit Principles	3	1-4
ENGLISH 10801197	Technical Reporting	3	3-0
PHILOS 10809166	Introduction to Ethics: Theory and Applications	3	3-0
Third Semester			
ELECT 10605115	Analog Circuit Principles	3	1-4
ELECT 10605143	Motors and Control Circuits	3	1-4
ELECT 10605152	Digital Systems Analysis	3	1-4
PSYCH 10809199	Psychology Of Human Relations	3	3-0
	Elective	3	
Fourth Semester			
ELECT 10605116	Engineering Project Principles	3	1-4
ELECT 10605151	Instrumentation and Troubleshooting	3	1-4
ELECT 10605178	Networks, Interfacing and Programming	3	1-4
PHYSICS 10806139	Survey of Physics	3	1-4
ECON 10809195	Economics	3	3-0
Recommended Electives			
GENENG 20806295	Introduction to Engineering	3	1-4
ELECT 10605101	Electronics Internship Level 1	3	0-0
ELECT 10605102	Electronics Internship Level 2	3	0-0
ELECT 10605164	Electro-optics, Lasers, and Photonics Fundamentals	3	1.5-3
ELECT 10605173	Embedded Programming	3	1-4
ELECT 10605176	Microcontrollers	3	1-4
GENENG 10605252	Introduction to Computer Engineering	3	1-4
GENENG 10605270	AC/DC Circuit Techniques and Principles	3	1-4
EMTEC 10620101	Programmable Logic Controllers 1	3	0-6

Effective 2025-2026
Program Number: 306053

Electronics Soldering Assembler

A Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
ELECT 10605107	Certified IPC Application Specialist (CIS) A-610	1	1-0
ELECT 10605108	Certified IPC Application Specialist (CIS) J-STD-001	1	0.5-1
ELECT 10605112	AC/DC Electronics 1	3	1-4
ELECT 10605118	Digital Circuit Techniques	3	1-4

Effective 2025-2026
Program Number: 305313

Emergency Medical Technician

A Less Than One Year Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
Courses			
EMS 10531102	Emergency Medical Technician 1	2	1-2
EMS 10531103	Emergency Medical Technician 2	3	1-2

Effective 2025-2026
Program Number: 311452

Entrepreneurship

A One Year Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
ADMINPRF 10106100	Mindset for Success	3	3-0
ADMINPRF 10106164	Customer Contact Skills	2	2-0
SMLBUS 10145105	Operations Management	3	3-0
SMLBUS 10145117	Introduction to Entrepreneurship	3	3-0
ENGLISH 10801195	Written Communication	3	3-0
MATH 10804123	Math with Business Applications	3	3-0
Second Semester			
ACCTG 10101106	Accounting Fundamentals	3	3-0
BUSADM 10102143	Organizational Management	3	3-0
SMLBUS 10145125	Artificial Intelligence (AI) for Small Business Marketing	3	3-0
MKTG 10104104	Selling Principles	3	3-0
SMLBUS 10145102	Small Business Development	3	3-0
SMLBUS 10145108	Field Experience	2	1-0

Effective 2025-2026
Program Number: 901031CERT

Essentials of Microsoft Office

A Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
Required Courses			
COMPSOFT 10103121	Microsoft Windows	1	0.33-1.33
COMPSOFT 10103165	Outlook	1	0.33-1.33
COMPSOFT 10103145	Access	1	0.33-1.33
ADMINPRF 10106168	Microsoft Office for Business Applications	3	1-4

Effective 2025-2026
Program Number: 115081

Expanded Function Dental Auxiliary

An Advanced Technical Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
Required Courses			
DENTHYG 10508101	Dental Health Safety	1	0-2
DENTAST 10508121	EFDA Dental Procedures	3	2-2
DENTAST 10508122	EFDA Preventative Procedures	1	0.5-1
DENTAST 10508123	EFDA Prosthodontic Procedures	2	1.5-1
DENTAST 10508124	EFDA Clinical	2	0-0
DENTHYG 10508304	Dental & General Anatomy	2	2-0

Effective 2025-2026
Program Number: 504811

Facilities Maintenance Technician Apprentice

Apprenticeship Completion

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
INDMECH 10462102	Introduction to Logic & Troubleshooting	1	0-2
HVAC 10601330	Refrigeration Fundamentals	2	0-4
HVAC 10601331	HVAC Installation Basics	1	0-2
MECTEC 10606205	Print Reading for HVAC	1	0-2
Second Semester			
INSAFE 10449100	Safety for Industry	1	0-2
INDMECH 10462124	Facilities Maintenance - Envelope	2	0-4
HVAC 10601304	Industrial Fluid Distribution Systems	2	0-4
Third Semester			
INDMECH 10462108	Green Awareness for Maintenance	1	0-2
INDMECH 10462321	DCAC 1 DC Theory	1	0-2
INDMECH 10462323	Controls 1	2	0-4
INDMECH 10462329	DCAC 2 AC Theory	1	0-2
Fourth Semester			
INDMECH 10462109	Maintenance Operations 1	1	0-2
INDMECH 10462224	Facilities Maintenance - Mechanical, Electrical, Plumbing	2	0-4
HVAC 10601332	Heating and Air Conditioning Advanced	3	0.5-5

Effective 2025-2026
Program Number: 904625CERT

Facilities Management

A Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
Courses			
BUSADM 10102135	Project Management - Fundamentals	3	3-0
INSAFE 10449100	Safety for Industry	1	0-2
INDMECH 10462109	Maintenance Operations 1	1	0-2
INDMECH 10462209	Maintenance Operations 2	1	0-2
HVAC 10601370	Building Automations 1	3	0.5-5

Effective 2025-2026
Program Number: 101142

Finance

An Associate in Applied Science Degree

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
ACCTG 10101111	Accounting 1 - Principles	4	4-0
COMPSOFT 10103145	Access	1	0.33-1.33
ADMINPRF 10106109	Business Spreadsheet Applications	3	1-4
FINANCE 10114130	Personal Finance	3	3-0
ENGLISH 10801195	Written Communication	3	3-0
MATH 10804144	Math of Finance	3	3-0
Second Semester			
ACCTG 10101113	Accounting 2 - Principles	4	4-0
ACCTG 10101123	Tax 1	4	4-0
FINANCE 10114128	Financial Institutions	3	3-0
ECON 10809195	Economics	3	3-0
COMM 20810205	Small Group & Interpersonal Communications	3	3-0
Third Semester			
ACCTG 10101118	Management Accounting	4	4-0
BUSADM 10102104	Business Statistics	3	3-0
BUSADM 10102160	Business Law 1	3	3-0
FINANCE 10114126	Corporate Finance	3	3-0
INSMGT 10162126	Introduction to Loss Investigation (AIC 33)	3	3-0
Fourth Semester			
BUSADM 10102143	Organizational Management	3	3-0
ADMINPRF 10106190	Professional Development	1	1-0
FINANCE 10114127	Financial Analysis	3	3-0
FINANCE 10114140	Investments	3	3-0
PSYCH 10809199	Psychology of Human Relations	3	3-0
	Elective	3	0-0
Recommended Elective Courses (3 credits)			
Recommended Accounting Elective			
ACCTG 10101138	Accounting and Payroll Systems	3	2-2
Recommended Business Management Elective			
BUSADM 10102135	Project Management Fundamentals	3	3-0
Recommended Small Business Elective			
SMLBUS 10145102	Small Business Development	3	3-0
MKTG 10104102	Marketing Principles	3	3-0
MKTG 10104104	Selling Principles	3	3-0
Recommended Human Resources Elective			
HRMGT 10116145	Introduction to Human Resources	3	3-0
HRMGT 10116147	Wage, Salary & Benefits Admin	3	3-0

Effective 2025-2026
Program Number: 311144

Finance Assistant

A Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
ACCTG 10101111	Accounting 1 - Principles	4	4-0
ADMINPRF 10106109	Business Spreadsheet Applications	3	1-4
FINANCE 10114130	Personal Finance	3	3-0
ENGLISH 10801195	Written Communication	3	3-0
MATH 10804144	Math of Finance	3	3-0
Second Semester			
COMPSOFT 10103145	Access	1	0.33-1.33
ACCTG 10101113	Accounting 2 - Principles	4	4-0
ACCTG 10101123	Tax 1	4	4-0
FINANCE 10114128	Financial Institutions	3	3-0
COMM 10801196	Oral/Interpersonal Communication	3	3-0

Effective 2025-2026
Program Number: 105032

Fire Protection Technician

An Associate in Applied Science Degree

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
FIRET 10503143	Building Construction for Fire Protection	3	3-0
FIRET 10503144	OSHA for the Fire Service	3	3-0
FIRET 10503191	Principles of Emergency Services	2	2-0
FIRET 10503100	Fire Recruit Academy	5	2-0
ENGLISH 10801195	Written Communication	3	3-0
Second Semester			
FIRET 10503193	Fire Protection Systems	3	3-0
EMS 10531102	Emergency Medical Technician 1	2	1-2
EMS 10531103	Emergency Medical Technician 2	3	1-2
MATH 10804134	Mathematical Reasoning	3	2-2
PSYCH 10809199	Psychology Of Human Relations	3	3-0
Third Semester			
FIRET 10503151	Fire Prevention	4	4-0
FIRET 10503195	Fire Behavior and Combustion	3	3-0
FIRET 10503154	Hazardous Materials Chemistry	2	2-0
COMM 10801196	Oral/Interpersonal Communication	3	3-0
SOC 10809172	Introduction to Diversity Studies	3	3-0
Fourth Semester			
FIRET 10503156	Strategies, Tactics & Inc Mgmt	4	4-0
FIRET 10503157	Fire Investigation	3	3-0
FIRET 10503192	Principles of Emergency Services Safety & Survival	3	3-0
FIRET 10503194	Fire Protection Hydraulics	3	3-0
ENGLISH 10801197	Technical Reporting	3	3-0

Effective 2025-2026
Program Number: 301094

Fitness and Wellness Specialist

A Less Than One Year Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
FITREC 10109121	Introduction to Fitness, Recreation, and Wellness	3	3-0
FITREC 10109173	Group Fitness & Small Group Coaching	3	1.5-3
FITREC 10109297	Exercise Science for Fitness Professionals	3	1.5-3
FITREC 10109299	Precision Nutrition Coaching	3	2-2
Second Semester			
FITREC 10109159	Health & Wellness Coaching	3	2-2
FITREC 10109176	Personal Training	3	1.5-3
FITREC 10109127	Fitness, Recreation, & Wellness Practical Lab	3	1-4
MKTG 10104114	Social Media Marketing	3	3-0

Madison Area Technical College

Effective 2025-2026
Program Number: 101094

Fitness, Recreation, and Wellness Management

An Associate in Applied Science Degree

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
ADMINPRF 10106100	Mindset for Success	3	3-0
ADMINPRF 10106168	Microsoft Office for Business Applications	3	1-4
FITREC 10109121	Introduction to Fitness, Recreation, & Wellness	3	3-0
FITREC 10109173	Group Fitness & Small Group Coaching	3	1.5-3
FITREC 10109297	Exercise Science for Fitness Professionals	3	1.5-3
Second Semester			
FITREC 10109106	Programming & Community Events in Fitness, Recreation, & Wellness	3	2-2
FITREC 10109155	Facility Management in Fitness, Recreation, & Wellness	3	1.5-3
FITREC 10109159	Health and Wellness Coaching	3	2-2
ENGLISH 10801195	Written Communication	3	3-0
Complete one of the following:			
FITREC 10109181	Fitness, Recreation, & Wellness Internship	3	0-0
FITREC 10109197	Outdoor Experiential Facilitation	3	3-0
GLBLED 10140333	Interdisciplinary Global Studies Abroad	3	3-0
Third Semester			
MKTG 10104114	Social Media Marketing	3	3-0
FITREC 10109135	Leadership Strategies in Fitness, Recreation, & Wellness	3	3-0
FITREC 10109160	Diversity, Equity, & Inclusion in Fitness, Recreation, & Wellness	3	3-0
MATH 10804123	Math with Business Applications	3	3-0
FITREC 10109299	Precision Nutrition Coaching	3	2-2
Fourth Semester			
FITREC 10109127	Fitness, Recreation, & Wellness Practical Lab	3	1-4
FITREC 10109176	Personal Training	3	1.5-3
COMM 10801196	Oral/Interpersonal Communication	3	3-0
SOC 10809196	Introduction to Sociology	3	3-0
PSYCH 10809199	Psychology Of Human Relations	3	3-0

Effective 2025-2026
Program Number: 908022CERT

French Language

A Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
Language Requirement			
Completion of four courses in French is required. At least 2 of the courses must be enrolled in at Madison College.			
FRENCH 20802221	French 1	4	3-2
FRENCH 20802222	French 2	4	3-2
FRENCH 20802223	French 3	4	3-2
FRENCH 20802224	French 4	4	3-2
FRENCH 20802226	French 5	3	3-0

Study Abroad Experience
Completion of one course in French as a study abroad experience is required. Consult with the faculty certificate coordinator for more information.

Oral Competency Assessment Requirement
Completion of the World Language Oral Assessment with a minimum score of 5 within the last three years is required.

Effective 2025-2026
Program Number: 304425

Gas Metal Arc Welding (GMAW)

A Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
Courses			
INSAFE 10449100	Safety for Industry	1	0-2
MACHT 10606200	Interpreting Engineering Drawings	2	0-4
WELD 31442320	Welding Occupational Development	1	2-0
WELD 31442323	Basic Gas Metal Arc Welding (GMAW/MIG)	2	2-2
MTLFAB 31457309	Math for Metal Fabrication	1	2-0

Effective 2025-2026
Program Number: 908093CERT

Gender and Women's Studies

A Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
Required Courses			
SOCSCI 20809206	Introduction to Women's Studies	3	3-0
Additional Course List			
Students must complete a minimum of 9 credits from the following:			
ENGLISH 20801211	Gay & Lesbian Literature	3	3-0
ENGLISH 20801250	Women In Literature	3	3-0
HISTORY 20803233	Gender and Women's History in Cultural Representations	3	3-0
PSYCH 20809201	Human Sexuality	3	3-0
SOC 20809204	Sociology of Relationships and Families	3	3-0
PSYCH 20809210	Psychology of Men	3	3-0
POLISCI 20809245	Gender and Politics	3	3-0
SOC 20809253	Sociology of Gender	3	3-0
SOC 20809255	Introduction to LGBTQ+ Studies	3	3-0
SOCSCI 20809257	Gender and Women's Studies-Study Abroad Experience	1	1-0
SOC 20809277	Couple Relationships	1	1-0
ARTHIST 20815211	Art History: Women In Art	3	3-0

**Students with a GPA of 3.5 or higher may choose to complete an honors project in Gender and Women's Studies for up to 3 credits towards the additional 9 credits requirement.*

Effective 2025-2026
Program Number: 102011

Graphic Design

An Associate in Applied Arts Degree

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
GRDSGN 10201102	Design Fundamentals	3	0-6
GRDSGN 10201103	Drawing Fundamentals	3	0-6
GRDSGN 10201136	Concept Development	2	0-4
GRDSGN 10201137	Survey of Design	1	1-0
GRDSGN 10201181	Introduction to Design Software	3	0-6
ENGLISH 10801195	Written Communication	3	3-0
MATH 10804123	Math with Business Applications	3	3-0
Second Semester			
GRDSGN 10201151	Typography	3	0-6
GRDSGN 10201152	Illustration & Color	2	0-4
GRDSGN 10201177	Web Design	3	0-6
GRDSGN 10201182	Advanced Design Software	3	0-6
PHOTO 10203130	Introduction to Photography and Video	2	0-4
COMM 10801196	Oral/Interpersonal Communication	3	3-0
Third Semester			
GRDSGN 10201106	Advanced Illustration	3	0-6
GRDSGN 10201110	Advanced Typography	2	0-4
GRDSGN 10201121	Graphic Design Workshop	3	0-6
GRDSGN 10201128	Print & Digital Production	3	0-6
VIDAUD 10206129	Motion Design	2	0-4
PSYCH 10809199	Psychology Of Human Relations	3	3-0
Fourth Semester			
GRDSGN 10201153	Integrated Design	2	0-4
GRDSGN 10201154	Design Project Management	3	0-6
GRDSGN 10201162	Portfolio Preparation	2	0-4
GRDSGN 10201184	Advanced Design & Layout	2	0-4
SOC 10809197	Contemporary American Society	3	3-0
	Electives	3	
Recommended Electives			
GRDSGN 10201144	Principles of Letterpress: Design and Printing	3	0-6
GRDSGN 10201145	Introduction to Screen Printing	2	0-4
GRDSGN 10201146	Advanced Screen Printing Workshop	2	0-4
GRDSGN 10201147	Advanced Letterpress Workshop	2	0-4
GRDSGN 10201156	Front-End Web Design	3	0-6
GRDSGN 10201157	Social Media Concepting	3	0-6
GRDSGN 10201158	Advanced Digital Design	2	0-4

GRDSGN 10201163	UX Foundations	3	0-6
GRDSGN 10201169	Business of Graphic Design & Illustration	2	2-0
GRDSGN 10201178	Advanced UX/UI Design	3	0-6
GRDSGN 10201183	Electronic Illustration	2	0-4
GRDSGN 10201195	Advanced Digital Development	3	0-6
ARTHIST 20815200	Art History: Ancient to Medieval	3	3-0
ARTHIST 20815210	Art History: Renaissance to Modern	3	3-0
ARTHIST 20815211	Art History: Women In Art	3	3-0

Effective 2025-2026
Program Number: 504019

HVAC Apprentice (ABC)

Apprenticeship Completion

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
10601331 HVAC Installation Basics and 10606205 Print Reading for HVAC			
HVAC 50401590	Trade HVAC Semester 1	2	3-1
10601304 Industrial Fluid Distribution Systems			
HVAC 50401591	Trade HVAC Semester 2	2	3-1
10462323 Controls 1			
HVAC 50401592	Trade HVAC Semester 3	2	3-1
10601342 Hydronic and Steam Systems			
HVAC 50401593	Trade HVAC Semester 4	2	3-1
10601330 Refrigeration Fundamentals			
HVAC 50401594	Trade HVAC Semester 5	2	3-1
10606120 2D-CAD and 10606121 CAD for MEP Systems			
HVAC 50401595	Trade HVAC Semester 6	2	3-1
10601340 Forced Air Heating Systems			
HVAC 50401596	Trade HVAC Semester 7	2	3-1
10601332 Heating & Air Conditioning Advanced			
HVAC 50401597	Trade HVAC Semester 8	2	3-1

Effective 2025-2026
Program Number: 901603CERT

Healthcare Customer Service

A Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
Required Courses			
ADMINPRF 10106164	Customer Contact Skills	2	2-0
ADMINPRF 10106168	Microsoft Office for Business Applications	3	1-4
MEDADMIN 10160165	Medical Administrative Procedures	3	1-4
MEDADMIN 10160178	Medical Language for the Business Professional 1	3	2-2

Effective 2025-2026
Program Number: 901608CERT

Healthcare Management

A Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
Required Courses			
BUSADM 10102143	Management Techniques	3	3-0
HRMGT 10116145	Introduction to Human Resources	3	3-0
BUSADM 10102134	Introduction to Business	3	3-0
ADMINPRF 10106231	Business Presentations and Publications	3	1-4
MEDADMIN 10160178	Medical Language for the Business Professional 1	3	2-2
MEDADMIN 10160165	Medical Administrative Procedures	3	1-4

Effective 2025-2026
Program Number: 301602

Healthcare Receptionist

A Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
ADMINPRF 10106100	Mindset for Success	3	3-0
ADMINPRF 10106107	Business Document Applications	3	1-4
ADMINPRF 10106139	Keyboard Skillbuilding	1	0.33-1.33
MEDADMIN 10160178	Medical Language for the Business Professional 1	3	2-2
ENGLISH 10801195	Written Communication	3	3-0
Second Semester			
COMPSOFT 10103165	Outlook	1	0.33-1.33
ADMINPRF 10106109	Business Spreadsheet Applications	3	1-4
ADMINPRF 10106164	Customer Contact Skills	2	2-0
MEDADMIN 10160165	Medical Administrative Procedures	3	1-4
MEDADMIN 10160179	Medical Language for the Business Professional 2	3	2-2

Effective 2025-2026
Program Number: 301091

Hospitality Assistant

A Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
HOSPT 10109101	Exploring Hospitality	3	3-0
ADMINPRF 10106100	Mindset for Success	3	3-0
SMLBUS 10145123	Leading Your Life with Emotional Intelligence	3	3-0
ENGLISH 10801195	Written Communication	3	3-0

Effective 2025-2026
Program Number: 901068CERT

Hospitality Certificate for the Business Professional

A Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
COURSES			
ADMINPRF 10106109	Business Spreadsheet Applications	3	1-4
ADMINPRF 10106164	Customer Contact Skills	2	2-0
EVTMGT 10109102	Fundamentals Of Meeting Mgmt	3	3-0
HOSPT 10109101	Exploring Hospitality	3	3-0
HOSPT 10109125	Hospitality Leadership	3	3-0
Choose one of the following:			
SMLBUS 10145131	Mastering Mindfulness: The Power of Living in the Present	1	1-0
SMLBUS 10145132	Mastering Mindfulness: Pathway to Personal Development	1	1-0
SMLBUS 10145133	Mastering Mindfulness: Strength and Self-Reflection	1	1-0

Effective 2025-2026
Program Number: 101092

Hospitality Management

An Associate in Applied Science Degree

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
ADMINPRF 10106100	Mindset for Success	3	3-0
ADMINPRF 10106168	Microsoft Office for Business Applications	3	1-4
HOSPT 10109101	Exploring Hospitality	3	3-0
SMLBUS 10145123	Leading Your Life with Emotional Intelligence	3	3-0
ENGLISH 10801195	Written Communication	3	3-0
Second Semester			
MKTG 10104102	Marketing Principles	3	3-0
ADMINPRF 10106112	Event Planning & Coordination	3	2-2
HOSPT 10109136	Hospitality Law	3	3-0
COMM 10801196	Oral/Interpersonal Communication	3	3-0
MATH 10804123	Math with Business Applications	3	3-0
Third Semester (Summer)			
HOSPT 10109157	Hospitality Internship	2	0-0
Fourth Semester			
MKTG 10104114	Social Media Marketing	3	3-0
HOSPT 10109131	Rooms Division Operation	3	3-0
	Elective	3	0-0
HRMGT 10116145	Introduction to Human Resources	3	3-0
PSYCH 10809199	Psychology Of Human Relations	3	3-0
Fifth Semester			
ADMINPRF 10106164	Customer Contact Skills	2	2-0
HOSPT 10109125	Hospitality Leadership	3	3-0
HOSPT 10109134	Revenue Management	3	3-0
SOC 10809172	Introduction to Diversity Studies	3	3-0
	Elective Credit	3	0-0
Recommended Electives			
SMLBUS 10145131	Mastering Mindfulness: The Power of Living in the Present	1	1-0
SMLBUS 10145132	Mastering Mindfulness: Pathway to Personal Development	1	1-0
SMLBUS 10145133	Mastering Mindfulness: Strength and Self-Reflection	1	1-0
SMLBUS 10145120	Global Entrepreneurship	3	1-4
SMLBUS 10145117	Introduction to Entrepreneurship	3	3-0
BUSADM 10102135	Project Management Fundamentals	3	3-0
BUSADM 10102134	Introduction to Business	3	3-0
MKTG 10104126	Introduction to Public Relations	3	3-0
MKTG 10104169	Digital Marketing	3	3-0
SMLBUS 10145105	Operations Management	3	3-0
ADMINPRF 10106231	Business Presentations and Publications	3	1-4

Effective 2025-2026
Program Number: 311094

Hospitality Specialist

A Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
ADMINPRF 10106100	Mindset for Success	3	3-0
HOSPT 10109101	Exploring Hospitality	3	3-0
SMLBUS 10145123	Leading Your Life with Emotional Intelligence	3	3-0
MATH 10804123	Math with Business Applications	3	3-0
ENGLISH 10801195	Written Communication	3	3-0
Second Semester			
MKTG 10104102	Marketing Principles	3	3-0
MKTG 10104114	Social Media Marketing	3	3-0
ADMINPRF 10106112	Event Planning & Coordination	3	2-2
HOSPT 10109131	Rooms Division Operation	3	3-0
HOSPT 10109136	Hospitality Law	3	3-0
COMM 10801196	Oral/Interpersonal Communication	3	3-0

Effective 2025-2026
Program Number: 101162

Human Resource Management

An Associate in Applied Science Degree

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
BUSADM 10102134	Introduction to Business	3	3-0
HRMGT 10116145	Introduction to Human Resources	3	3-0
ADMINPRF 10106100	Mindset for Success	3	3-0
ENGLISH 10801195	Written Communication	3	3-0
Select one of the following:			
MKTG 10104102	Marketing Principles	3	3-0
FINANCE 10114130	Personal Finance	3	3-0
ADMINPRF 10106107	Business Document Applications	3	1-4
Second Semester			
ADMINPRF 10106109	Business Spreadsheet Applications	3	1-4
HRMGT 10116147	Wage, Salary & Benefits Admin	3	3-0
HRMGT 10116149	Effective Staffing	3	3-0
HRMGT 10116152	Organizational Training and Development	3	3-0
COMM 10801196	Oral/Interpersonal Communication	3	3-0
Third Semester			
ACCTG 10101111	Accounting 1 - Principles	4	4-0
BUSADM 10102143	Organizational Management	3	3-0
HRMGT 10116148	Employee Relations	3	3-0
HRMGT 10116168	Employment Law	3	3-0
MATH 10804144	Math of Finance	3	3-0
Fourth Semester			
ACCTG 10101154	Payroll Accounting	1	0.5-1
BUSADM 10102132	Strategic Leadership	3	3-0
BUSADM 10102135	Project Management Fundamentals	3	3-0
HRMGT 10116169	Human Resources Capstone	1	1-0
ECON 10809195	Economics	3	3-0
PSYCH 10809199	Psychology Of Human Relations	3	3-0

Effective 2025-2026
Program Number: 901161CERT

Human Resources

A Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
Select at least 12 credits from the following options:			
BUSADM 10102143	Organizational Management	3	3-0
ACCTG 10101154	Payroll Accounting	1	0.5-1
ADMINPRF 10106109	Business Spreadsheet Applications	3	1-4
HRMGT 10116145	Introduction to Human Resources	3	3-0
HRMGT 10116147	Wage, Salary & Benefits Admin	3	3-0
HRMGT 10116148	Employee Relations	3	3-0
HRMGT 10116149	Effective Staffing	3	3-0
HRMGT 10116152	Organizational Training and Development	3	3-0
HRMGT 10116168	Employment Law	3	3-0

Madison Area Technical College

Effective 2025-2026
Program Number: 105203

Human Services Associate

An Associate in Applied Science Degree

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
HUMSVC 10520105	Introduction to Human Services	3	3-0
HUMSVC 10520106	Orientation to Human Services Populations	3	3-0
HUMSVC 10520117	Interviewing	3	3-0
HUMSVC 10520135	Issues in Addiction	3	3-0
ENGLISH 10801195	Written Communication	3	3-0
PSYCH 10809199	Psychology Of Human Relations	3	3-0
Second Semester			
HUMSVC 10520116	Group Work Skills	3	3-0
HUMSVC 10520130	Social Change Skills	3	3-0
HUMSVC 10520141	Introduction to Community Mental Health	3	3-0
HUMSVC 10520142	Psychopharmacology	3	3-0
HUMSVC 10520136	Counseling Addiction	3	3-0
Third Semester			
HUMSVC 10520157	Human Services Counseling Skills	3	3-0
HUMSVC 10520188	Human Services Experience Conference 1	3	3-0
HUMSVC 10520190	Human Services Agency Internship 1	3	0-0
COMM 10801196	Oral/Interpersonal Communication	3	3-0
MATH 10804134	Mathematical Reasoning	3	2-2
SOC 10809172	Introduction to Diversity Studies	3	3-0
Fourth Semester			
HUMSVC 10520120	Community Service Agencies	3	3-0
HUMSVC 10520191	Human Services Agency Internship 2	3	0-0
HUMSVC 10520189	Human Services Experience Conference 2	3	3-0
SOC 10809197	Contemporary American Society	3	3-0

Effective 2025-2026
Program Number: 901502CERT

IT-Cisco Certified Networking Associate (CCNA)

A Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
Courses			
ITNET 10150121	Intro to Cisco Networking	3	2-2
ITNET 10150122	Cisco Networking 2	3	2-2
ITNET 10150123	Cisco Networking 3	3	2-2

Madison Area Technical College

Effective 2025-2026
Program Number: 101571

IT-Cloud DevOps Specialist

An Associate in Applied Science Degree

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
IT 10107111	Exploration of Information Technology	1	0.5-1
ITNET 10150104	Data Communications	3	2-2
ITSECUR 10151102	IT Security Awareness	1	0.5-1
ITTECSUP 10154184	Enterprise Client	3	2-2
ITTECSUP 10154190	Linux Server 1	3	2-2
ITDATA 10156105	AI Fundamentals	1	0.5-1
ENGLISH 10801195	Written Communication	3	3-0
Second Semester			
ITPROG 10152109	Python Scripting	3	2-2
ITTECSUP 10154171	Windows Server 1	3	2-2
ITDATA 10156124	Introduction to Databases	3	2-2
ITCLOUD 10157101	Introduction to Cloud Computing	3	2-2
COMM 10801196	Oral/Interpersonal Communication	3	3-0
Third Semester			
IT 10107175	Job Search Preparation	1	0.5-1
ITCLOUD 10157123	Advanced Scripting for Cloud	3	2-2
ITCLOUD 10157135	Virtualization Technology	3	2-2
ITCLOUD 10157141	AWS Administration	3	2-2
MATH 10804144	Math of Finance	3	3-0
PSYCH 10809199	Psychology Of Human Relations	3	3-0
Fourth Semester			
ITCLOUD 10157130	Azure Administration	3	2-2
ITCLOUD 10157155	DevOps	3	2-2
ITCLOUD 10157196	Cloud Internship	3	0-0
SOC 10809197	Contemporary American Society	3	3-0
ELECTIVE	Recommended Elective or General Elective	3	
List of Recommended Electives			
ITPROG 10152120	Website Development	3	2-2
ITTECSUP 10154172	Windows Server 2	3	2-2
ITSECUR 10151114	Linux Server 2	3	2-2
ITTECSUP 10154118	Infrastructure Automation	3	2-2

Madison Area Technical College

Effective 2025-2026
Program Number: 101514

IT-Cyber Compliance Specialist

An Associate in Applied Science Degree

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
IT 10107111	Exploration of Information Technology	1	0.5-1
ITNET 10150104	Data Communications	3	2-2
ITSECUR 10151102	IT Security Awareness	1	0.5-1
ITSECUR 10151107	Cybersecurity Compliance Fundamentals	3	2-2
ITTECSUP 10154184	Enterprise Client	3	2-2
ITDATA 10156105	AI Fundamentals	1	0.5-1
ENGLISH 10801195	Written Communication	3	3-0
Second Semester			
ITSECUR 10151113	Data Privacy	3	2-2
ITTECSUP 10154171	Windows Server 1	3	2-2
ITTECSUP 10154190	Linux Server 1	3	2-2
COMM 10801196	Oral/Interpersonal Communication	3	3-0
PHILOS 10809166	Introduction to Ethics: Theory and Application	3	3-0
Third Semester			
IT 10107175	Job Search Preparation	1	0.5-1
ITSECUR 10151114	Linux Server 2	3	2-2
ITSECUR 10151132	Cybersecurity Standards and Frameworks	3	2-2
ITPROG 10152109	Python Scripting	3	2-2
MATH 10804144	Math of Finance	3	3-0
ELECTIVE	Elective	3	
Fourth Semester			
ITSECUR 10151146	Cybersecurity Policy	3	2-2
ITSECUR 10151195	Cyber Compliance Internship	3	0-0
ITCLOUD 10157101	Introduction to Cloud Computing	3	2-2
PSYCH 10809199	Psychology Of Human Relations	3	3-0
ELECTIVE	Elective	3	
Recommended Electives			
Electives must be associate degree (10-level) or college transfer (20-level) courses.			
ITSECUR 10151137	Incident Response	3	2-2
ITSECUR 10151164	Penetration Testing	3	2-2
ITTECSUP 10154136	Technology Implementation	3	2-2

Madison Area Technical College

Effective 2025-2026
Program Number: 101512

IT-Cybersecurity Specialist

An Associate in Applied Science Degree

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
IT 10107111	Exploration of Information Technology	1	0.5-1
ITNET 10150104	Data Communications	3	2-2
ITSECUR 10151102	IT Security Awareness	1	0.5-1
ITTECSUP 10154184	Enterprise Client	3	2-2
ITTECSUP 10154190	Linux Server 1	3	2-2
ITDATA 10156105	AI Fundamentals	1	0.5-1
ENGLISH 10801195	Written Communication	3	3-0
PSYCH 10809199	Psychology Of Human Relations	3	3-0
Second Semester			
ITSECUR 10151106	Perimeter Security	3	2-2
ITSECUR 10151114	Linux Server 2	3	2-2
ITPROG 10152109	Python Scripting	3	2-2
ITTECSUP 10154171	Windows Server 1	3	2-2
COMM 10801196	Oral/Interpersonal Communication	3	3-0
Third Semester			
IT 10107175	Job Search Preparation	1	0.5-1
ITSECUR 10151137	Incident Response	3	2-2
ITSECUR 10151164	Penetration Testing	3	2-2
ITCLOUD 10157101	Introduction to Cloud Computing	3	2-2
ITCLOUD 10157135	Virtualization Technology	3	2-2
MATH 10804144	Math of Finance	3	3-0
Fourth Semester			
ITSECUR 10151133	Network Forensics and Threat Hunting	3	2-2
ITSECUR 10151142	Web Application Security	3	2-2
ITSECUR 10151168	Security Design	3	2-2
ITSECUR 10151197	Cybersecurity Internship	3	0-0
SOC 10809197	Contemporary American Society	3	3-0

Effective 2025-2026
Program Number: 101563

IT-Data and Analytics Specialist

An Associate in Applied Science Degree

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
ADMINPRF 10106109	Business Spreadsheet Applications	3	1-4
IT 10107111	Exploration of Information Technology	1	0.5-1
ITSECUR 10151102	IT Security Awareness	1	0.5-1
ITPROG 10152211	Python for Developers	3	2-2
ITDATA 10156105	AI Fundamentals	1	0.5-1
ITDATA 10156124	Introduction to Databases	3	2-2
MATH 10804144	Math of Finance	3	3-0
Second Semester			
ITPROG 10152110	Cloud for Developers	3	2-2
ITDATA 10156125	SQL Database Programming	3	2-2
ITDATA 10156133	Data Visualization	3	2-2
ITDATA 10156135	Data Engineering	3	2-2
ENGLISH 10801195	Written Communication	3	3-0
Third Semester			
IT 10107175	Job Search Preparation	1	0.5-1
ITDATA 10156126	Applied SQL	3	2-2
ITDATA 10156144	Machine Learning	3	2-2
COMM 10801196	Oral/Interpersonal Communication	3	3-0
SOC 10809197	Contemporary American Society	3	3-0
	Elective	3	
Fourth Semester			
ITPROG 10152131	Agile Practices	3	2-2
ITDATA 10156145	Applied Analytics in the Cloud	3	2-2
ITDATA 10156196	Data Analytics Internship	3	0-0
PSYCH 10809199	Psychology Of Human Relations	3	3-0
ELECTIVE	Elective	3	
Recommended Electives			
BUSADM 10102104	Business Statistics	3	3-0
ITPROG 10152120	Website Development	3	2-2
ITPROG 10152168	Advanced Javascript	3	2-2
ITPROG 10152200	Foundations of Software Quality	3	2-2

Effective 2025-2026
Program Number: 311541

IT-Desktop Support Technician

A Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
IT 10107111	Exploration of Information Technology	1	0.5-1
ITNET 10150121	Intro to Cisco Networking	3	2-2
ITSECUR 10151102	IT Security Awareness	1	0.5-1
ITTECSUP 10154184	Enterprise Client	3	2-2
ITDATA 10156105	AI Fundamentals	1	0.5-1
ENGLISH 10801195	Written Communication	3	3-0
PSYCH 10809199	Psychology Of Human Relations	3	3-0
Second Semester			
ITTECSUP 10154171	Windows Server 1	3	2-2
ITTECSUP 10154190	Linux Server 1	3	2-2
ITCLOUD 10157101	Introduction to Cloud Computing	3	2-2
COMM 10801196	Oral/Interpersonal Communication	3	3-0

Madison Area Technical College

Effective 2025-2026
Program Number: 1015210

IT-Front End Developer

An Associate in Applied Science Degree

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
IT 10107111	Exploration of Information Technology	1	0.5-1
ITSECUR 10151102	IT Security Awareness	1	0.5-1
ITPROG 10152119	Introduction to Programming Using JavaScript	3	2-2
ITPROG 10152120	Website Development	3	2-2
ITDATA 10156105	AI Fundamentals	1	0.5-1
ITDATA 10156124	Introduction to Databases	3	2-2
ENGLISH 10801195	Written Communication	3	3-0
Second Semester			
ITPROG 10152110	Cloud for Developers	3	2-2
ITPROG 10152121	Advanced CSS	3	2-2
ITPROG 10152130	UIUX and Web Accessibility	3	2-2
ITPROG 10152168	Advanced Javascript	3	2-2
COMM 10801196	Oral/Interpersonal Communication	3	3-0
Third Semester			
IT 10107175	Job Search Preparation	1	0.5-1
ITPROG 10152131	Agile Practices	3	2-2
ITPROG 10152158	JS Frameworks	3	2-2
SOC 10809197	Contemporary American Society	3	3-0
MATH 10804144	Math of Finance	3	3-0
ELECTIVE	Elective	3	
Fourth Semester			
ITPROG 10152108	Serverless Cloud with React	3	2-2
ITPROG 10152114	Front End Development Internship	3	0-0
ITPROG 10152182	Advanced Front End Development	3	2-2
PSYCH 10809199	Psychology Of Human Relations	3	3-0
ELECTIVE	Elective	3	
Recommended Electives			
ITPROG 10152103	C# Web Development Using ASP.NET	3	2-2
ITPROG 10152166	PHP Web Development with MySQL	3	2-2
ITPROG 10152200	Foundations of Software Quality	3	2-2
ITDATA 10156125	SQL Database Programming	3	2-2

Effective 2025-2026
Program Number: 9015214CER

IT-Introduction to Software Development

A Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
Required Courses			
ITPROG 10152119	Introduction to Programming with JavaScript	3	2-2
ITPROG 10152120	Website Development	3	2-2

Effective 2025-2026
Program Number: 901527CERT

IT-Java Professional Developer

A Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
Courses			
ITPROG 10152111	Java Programming	3	2-2
ITPROG 10152112	Advanced Java Programming	3	2-2
ITPROG 10152113	Enterprise Java Programming	3	2-2

Effective 2025-2026
Program Number: 101505

IT-Network Systems Administration

An Associate in Applied Science Degree

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
IT 10107111	Exploration of Information Technology	1	0.5-1
ITNET 10150121	Intro to Cisco Networking	3	2-2
ITSECUR 10151102	IT Security Awareness	1	0.5-1
ITTECSUP 10154184	Enterprise Client	3	2-2
ITDATA 10156105	AI Fundamentals	1	0.5-1
ENGLISH 10801195	Written Communication	3	3-0
PSYCH 10809199	Psychology Of Human Relations	3	3-0
Second Semester			
ITNET 10150122	Cisco Networking 2	3	2-2
ITTECSUP 10154171	Windows Server 1	3	2-2
ITTECSUP 10154190	Linux Server 1	3	2-2
ITCLOUD 10157101	Introduction to Cloud Computing	3	2-2
COMM 10801196	Oral/Interpersonal Communication	3	3-0
Third Semester			
IT 10107175	Job Search Preparation	1	0.5-1
ITNET 10150123	Cisco Networking 3	3	2-2
ITPROG 10152109	Python Scripting	3	2-2
ITTECSUP 10154118	Infrastructure Automation	3	2-2
ITTECSUP 10154136	Technology Implementation	3	2-2
MATH 10804144	Math of Finance	3	3-0
Fourth Semester			
ITNET 10150148	Advanced Technology Implementation	3	2-2
ITNET 10150192	Network Systems Administration Internship	3	0-0
ITCLOUD 10157135	Virtualization Technology	3	2-2
SOC 10809197	Contemporary American Society	3	3-0
ELECTIVE	Elective	3	
Recommended Electives			
Electives must be associate degree (10-level) or college transfer (20-level) courses.			
ITSECUR 10151114	Linux Server 2	3	2-2
ITCLOUD 10157130	Azure Administration	3	2-2
ITCLOUD 10157141	AWS Administration	3	2-2

Effective 2025-2026
Program Number: 901528CERT

IT-PHP Professional Web Developer

A Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
Courses			
ITPROG 10152166	PHP Web Development with MySQL	3	2-2
ITPROG 10152167	Advanced PHP and MySQL Web Development	3	2-2

Effective 2025-2026
Program Number: 611541PATH

IT-Service Center Technician

A Career Pathway Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
Required Courses			
ITNET 10150121	Introduction to Cisco Networking	3	2-2
ITTECSUP 10154184	Enterprise Client	3	2-2

Effective 2025-2026
Program Number: 501541

IT-Service Desk Technician

Apprenticeship Completion

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
ITTECSUP 10154104	A+ Hardware Essentials	3	2-2
ITTECSUP 10154184	Enterprise Client	3	2-2
Second Semester			
ITTECSUP 10154122	IT Service Concepts	3	2-2

Effective 2025-2026
Program Number: 501521

IT-Software Developer Apprentice

Apprenticeship Completion

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
ITPROG 10152119	Introduction to Programming Using JavaScript	3	2-2
ITPROG 10152120	Website Development	3	2-2
Second Semester			
ITPROG 10152111	Java Programming	3	2-2
Third Semester			
ITPROG 10152112	Advanced Java Programming	3	2-2
Fourth Semester			
ITPROG 10152131	Agile Practices	3	2-2

Effective 2025-2026
Program Number: 9015215CER

IT-Software Quality Fundamentals

A Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
ITPROG 10152120	Website Development	3	2-2
Second Semester			
ITPROG 10152130	UIUX and Web Accessibility	3	2-2
Third Semester			
ITPROG 10152200	Foundations of Software Quality	3	2-2

Madison Area Technical College

Effective 2025-2026
Program Number: 101524

IT-Web Software Developer

An Associate in Applied Science Degree

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
IT 10107111	Exploration of Information Technology	1	0.5-1
ITSECUR 10151102	IT Security Awareness	1	0.5-1
ITPROG 10152119	Introduction to Programming Using JavaScript	3	2-2
ITPROG 10152120	Website Development	3	2-2
ITDATA 10156105	AI Fundamentals	1	0.5-1
ITDATA 10156124	Introduction to Databases	3	2-2
ENGLISH 10801195	Written Communication	3	3-0
PSYCH 10809199	Psychology Of Human Relations	3	3-0
Second Semester			
ITPROG 10152111	Java Programming	3	2-2
ITDATA 10156125	SQL Database Programming	3	2-2
ITPROG 10152130	UIUX and Web Accessibility	3	2-2
ITPROG 10152166	PHP Web Development with MySQL	3	2-2
COMM 10801196	Oral/Interpersonal Communication	3	3-0
Third Semester			
IT 10107175	Job Search Preparation	1	0.5-1
ITPROG 10152110	Cloud for Developers	3	2-2
ITPROG 10152112	Advanced Java Programming	3	2-2
ITPROG 10152131	Agile Practices	3	2-2
MATH 10804144	Math of Finance	3	3-0
	Elective	3	
Fourth Semester			
ITPROG 10152113	Enterprise Java Programming	3	2-2
ITPROG 10152132	Web Software Developer Internship	3	0-0
ITPROG 10152168	Advanced Javascript	3	2-2
SOC 10809197	Contemporary American Society	3	3-0
ELECTIVE	Elective	3	
Recommended Electives			
ITPROG 10152103	C# Web Development Using ASP.NET	3	2-2
ITPROG 10152108	Serverless Cloud with React	3	2-2
ITPROG 10152121	Advanced CSS	3	2-2
ITPROG 10152158	JS Frameworks	3	2-2
ITPROG 10152167	Advanced PHP and MySQL Web Development	3	2-2
ITPROG 10152200	Foundations of Software Quality	4	2-2

Effective 2025-2026
Program Number: 108251

Individualized Technical Studies

An Associate in Applied Science Degree

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
Program to be submitted and approved through the Individual Technical Studies program process with 60-70 credits to complete the degree.			
Individualized Technical Studies Courses (40-49 credits) as approved by committee			
Students are required to complete a minimum of 40 credit hours relevant to career goals. A minimum of 20 of these credits must be focused in one discipline.			
	Individualized Technical Studies Course Placeholder	4	
General Education (15-30 credits)			
The courses below represent typical courses at the associate degree level. Additional general education courses, including those as the college transfer level may also be chosen. Running a (what-if) scenario degree progress report will display other course choices.			
First Communication Course Requirement			
Possible choices with final choice approved by committee.			
ENGLISH 10801195	Written Communication	3	3-0
Second Communication Course Requirement			
Possible choices with final choice approved by committee.			
COMM 10801196	Oral/Interpersonal Communication	3	3-0
SOC 10809197	Contemporary American Society	3	3-0
SPEECH 10801198	Speech	3	3-0
Social Science Course Requirements			
Possible choices with final choice approved by committee.			
PHILOS 10809103	Think Critically & Creatively	3	3-0
POLISCI 10809122	Intro to Amer Government	3	3-0
PHILOS 10809166	Introduction to Ethics: Theory and Applications	3	3-0
SOC 10809172	Introduction to Diversity Studies	3	3-0
ECON 10809195	Economics	3	3-0
SOC 10809196	Introduction to Sociology	3	3-0
SOC 10809197	Contemporary American Society	3	3-0
Behavioral Science (Psychology) Course Requirements			
Possible choices with final choice approved by committee.			
PSYCH 10809198	Introduction to Psychology	3	3-0
PSYCH 10809199	Psychology Of Human Relations	3	3-0
PSYCH 10809159	Abnormal Psychology	3	3-0
PSYCH 10809188	Developmental Psychology	3	3-0
Math/Science Course Requirements			
Possible choices with final choice approved by committee.			
MATH 10804107	College Mathematics	3	2-2

MATH 10804123	Math with Business Applications	3	3-0
MATH 10804134	Mathematical Reasoning	3	2-2
MATH 10804144	Math of Finance	3	3-0
BIOLOGY 10806105	Principles of Animal Biology	4	3-2
CHEM 10806134	General Chemistry	4	3-2
PHYSICS 10806154	General Physics 1	4	3-2
BIOLOGY 10806177	Gen Anatomy & Physiology	4	3-2
BIOLOGY 10806179	Advanced Anatomy & Physiology	4	3-2
CHEM 10806186	Intro to Biochemistry	4	3-2
BIOLOGY 10806197	Microbiology	4	2-4

Additional General Studies Courses
Possible choices with final choice approved by committee.
Choose from the courses listed under the above general education requirements.

Electives (0-6 credits)
Students may complete up to six credit hours of electives relevant to career goals. You may utilize your electives to take additional technical courses.

Effective 2025-2026
Program Number: 906203CERT

Industrial Automation - Comprehensive

A Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
INDMECH 10462323	Controls 1	2	0-4
EMTEC 10620106	Robotics 1 - Basic Operations for Industry	1	0-2
Second Semester			
INDMECH 10462325	Controls 2	2	0-4
EMTEC 10620108	Robotics 2 - Programming for Industry	2	0-4
Third Semester			
EMTEC 10620101	Programmable Logic Controllers 1	3	0-6
EMTEC 10620104	Sensors, Vision, and Safety Systems	3	0-6
Fourth Semester			
EMTEC 10620102	Programmable Logic Controllers 2	3	0-6

Effective 2025-2026
Program Number: 906202CERT

Industrial Automation - PLC and Controls

A Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
INDMECH 10462323	Controls 1	2	0-4
EMTEC 10620101	Programmable Logic Controllers 1	3	0-6
Second Semester			
INDMECH 10462325	Controls 2	2	0-4
EMTEC 10620102	Programmable Logic Controllers 2	3	0-6

Effective 2025-2026
Program Number: 906201CERT

Industrial Automation - Robotics

A Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
EMTEC 10620106	Robotics 1 - Basic Operations for Industry	1	0-2
Second Semester			
EMTEC 10620108	Robotics 2 - Programming for Industry	2	0-4
Third Semester			
EMTEC 10620110	Robotics 3 - Vision 2D for Industry	2	0-4

Effective 2025-2026
Program Number: 906204CERT

Industrial Automation - System Integration

A Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
EMTEC 10620114	Integration 1	4	0-8
Second Semester			
EMTEC 10620116	Integration 2	4	0-8

Madison Area Technical College

Effective 2025-2026
Program Number: 504131

Industrial Electrician Apprentice

Apprenticeship Completion

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
INDMECH 10462321	DCAC 1 DC Theory	1	0-2
INDMECH 10462323	Controls 1	2	0-4
INDMECH 10462329	DCAC 2 AC Theory	1	0-2
Second Semester			
INDMECH 10462325	Controls 2	2	0-4
INDMECH 10462331	DCAC 3 Theory	1	0-2
EMTEC 10620100	Introduction to PLCs	1	0-2
Third Semester			
ELEC-IND 10413752	Codes for Industrial Electricians 1: Introduction to the NEC	1	1-0
ELEC-IND 10413753	Codes for Industrial Electricians 2: OCPD and Electrical Device Installations	1	1-0
INDMECH 10462108	Green Awareness for Maintenance	1	0-2
MACHT 10606201	Interpreting Engineering Drawings Part A	1	0-2
ELEC-IND 32413770	Intermediate PLCs for Industrial Electricians	1	1-1
Fourth Semester			
ELEC-IND 10413754	Codes for Industrial Electricians 3: Article 250 Part A	1	1-0
ELEC-IND 10413755	Codes for Industrial Electricians 4: Article 250 Part B	1	1-0
INSAFE 10449100	Safety for Industry	1	0-2
INDMECH 10462104	Fluid Power 1 for Industry	1	0-2
ELEC-IND 32413771	Advanced PLCs for Industrial Electricians	1	1-1
Fifth Semester			
ELEC-IND 10413756	Codes for Industrial Electricians 5: Article 300, Cords/Cables, Hazardous Installations	1	1-0
ELEC-IND 10413758	Codes for Industrial Electricians 7: Motors and Generators	1	1-0
ELEC-IND 32413761	Industrial Electrician Motors & Generators	1	1-1
Sixth Semester			
ELEC-IND 10413757	Codes for Industrial Electricians 6: Conductors, Raceways, Data/Communication Cables	1	1-0
ELEC-IND 10413759	Codes for Industrial Electricians 8: Transformers	1	1-0
ELEC-IND 32413760	Industrial Electrician Transformers	1	1-1
Seventh Semester			
ELEC-IND 10413768	Industrial Electrician Solid State Electronics	3	2-2
Eighth Semester			
ELEC-IND 10413765	Power Systems & Variable Speed Drives for Industrial Electricians	3	2-2

Effective 2025-2026
Program Number: 904626CERT

Industrial Electro-Mechanical Essentials

A Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
Required Courses			
COMPSOFT 10103133	Excel Beginning	1	0.33-1.33
INSAFE 10449100	Safety for Industry	1	0-2
INDMECH 10462104	Fluid Power 1 for Industry	1	0-2
INDMECH 10462106	Mechanisms 1 for Industry	1	0-2
INDMECH 10462321	DCAC 1 DC Theory	1	0-2
INDMECH 10462329	DCAC 2 AC Theory	1	0-2
INDMECH 10462331	DCAC 3 Theory	1	0-2
MACHT 10606200	Interpreting Engineering Drawings	2	0-4
MACHT 32420330	Metal Processes 1	2	2-2
	10-442-126 Metal Repair Techniques may be taken in place of Metal Processes 1	2	
MACHT 32420349	Basic Metrology (Part A)	1	2-0
	32-420-351 Elements of Basic Metrology may be taken in place of Basic Metrology (Part A)	2	

Effective 2025-2026
Program Number: 314623

Industrial Mechanic - HVAC

A One Year Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
MTLFAB 10457100	Metal Repair Techniques	2	0-4
INDMECH 10462102	Introduction to Logic & Troubleshooting	1	0-2
INDMECH 10462321	DCAC 1 DC Theory	1	0-2
INDMECH 10462323	Controls 1	2	0-4
INDMECH 10462329	DCAC 2 AC Theory	1	0-2
HVAC 10601330	Refrigeration Fundamentals	2	0-4
HVAC 10601331	HVAC Installation Basics	1	0-2
HVAC 10601340	Forced Air Heating Systems	2	0-4
MECTEC 10606205	Print Reading for HVAC	1	0-2
MATH 10804107	College Mathematics	3	2-2
Second Semester			
INSAFE 10449100	Safety for Industry	1	0-2
INDMECH 10462106	Mechanisms 1 for Industry	1	0-2
HVAC 10601305	Fluid Distribution Systems Lab	1	0-2
INDMECH 10462325	Controls 2	2	0-4
INDMECH 10462331	DCAC 3 Theory	1	0-2
HVAC 10601304	Industrial Fluid Distribution Systems	2	0-4
HVAC 10601332	Heating and Air Conditioning Advanced	3	0.5-5
HVAC 10601336	EPA 608 Training & Certification	1	0.5-1
HVAC 10601342	Hydronic and Steam Systems	3	0.5-5

Madison Area Technical College

Effective 2025-2026
Program Number: 314629

Industrial Mechanic-Advanced Manufacturing

A Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
INSAFE 10449100	Safety for Industry	1	0-2
MTLFAB 10457100	Metal Repair Techniques	2	0-4
INDMECH 10462102	Introduction to Logic & Troubleshooting	1	0-2
INDMECH 10462104	Fluid Power 1 for Industry	1	0-2
INDMECH 10462105	Fluid Power 2 for Industry	2	0-4
INDMECH 10462323	Controls 1	2	0-4
INDMECH 10462321	DCAC 1 DC Theory	1	0-2
INDMECH 10462329	DCAC 2 AC Theory	1	0-2
MACHT 10606200	Interpreting Engineering Drawings	2	0-4
MATH 10804107	College Mathematics	3	2-2
Second Semester			
INDMECH 10462106	Mechanisms 1 for Industry	1	0-2
INDMECH 10462107	Mechanisms 2 for Industry	1	0-2
INDMECH 10462109	Maintenance Operations 1	1	0-2
INDMECH 10462209	Maintenance Operations 2	1	0-2
INDMECH 10462331	DCAC 3 Theory	1	0-2
INDMECH 10462325	Controls 2	2	0-4
MECTEC 10606202	Introduction to CAD-2D	2	0.5-3
EMTEC 10620100	Introduction to PLCs	1	0-2
EMTEC 10620106	Robotics 1 - Basic Operations for Industry	1	0-2
EMTEC 10620112	Introduction to Integration	2	0-4
ENGLISH 10801195	Written Communication	3	3-0

Effective 2025-2026
Program Number: 3146210

Industrial Mechanic-Facilities

A One Year Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
MTLFAB 10457100	Metal Repair Techniques	2	0-4
INDMECH 10462108	Green Awareness for Maintenance	1	0-2
INDMECH 10462321	DCAC 1 DC Theory	1	0-2
INDMECH 10462329	DCAC 2 AC Theory	1	0-2
INDMECH 10462323	Controls 1	2	0-4
HVAC 10601330	Refrigeration Fundamentals	2	0-4
HVAC 10601331	HVAC Installation Basics	1	0-2
HVAC 10601340	Forced Air Heating Systems	2	0-4
MECTEC 10606205	Print Reading for HVAC	1	0-2
MATH 10804107	College Mathematics	3	2-2
Second Semester			
INSAFE 10449100	Safety for Industry	1	0-2
INDMECH 10462102	Introduction to Logic & Troubleshooting	1	0-2
INDMECH 10462104	Fluid Power 1 for Industry	1	0-2
INDMECH 10462109	Maintenance Operations 1	1	0-2
INDMECH 10462209	Maintenance Operations 2	1	0-2
INDMECH 10462124	Facilities Maintenance - Envelope	2	0-4
INDMECH 10462224	Facilities Maintenance - Mechanical, Electrical, Plumbing	2	0-4
HVAC 10601304	Industrial Fluid Distribution Systems	2	0-4
HVAC 10601332	Heating and Air Conditioning Advanced	3	0.5-5
HVAC 10601336	EPA 608 Training & Certification	1	0.5-1

Effective 2025-2026
Program Number: 901401CERT

Interdisciplinary Global Studies

A Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
14 credits minimum to complete the certificate by satisfying all the requirements as defined.			
World Language Requirement (3-8 credits)			
As part of the certificate, all students are required to take at least 3 credits of a language that is not their native language. The college defines your "native language" as the language of instruction during your high school years.			
SPANISH 20802211	Spanish 1	4	3-2
SPANISH 20802212	Spanish 2	4	3-2
SPANISH 20802213	Spanish 3	4	3-2
SPANISH 20802214	Spanish 4	4	3-2
SPANISH 20802215	Spanish 5	3	3-0
SPANISH 20802218	Spanish 6	3	3-0
FRENCH 20802221	French 1	4	3-2
FRENCH 20802222	French 2	4	3-2
FRENCH 20802223	French 3	4	3-2
FRENCH 20802224	French 4	4	3-2
FRENCH 20802226	French 5	3	3-0
CHINESE 20802230	Intro to Mandarin Chinese 1	3	2-2
CHINESE 20802231	Intro to Mandarin Chinese 2	3	2-2
CHINESE 20802232	Mandarin Chinese 3	3	3-0
ARABIC 20802240	Intro to Modern Arabic 1	3	2-2
ARABIC 20802241	Intro to Modern Arabic 2	3	2-2
Internationalized Courses Requirement (6-11 credits)			
In combination with the language and study abroad experience, complete additional courses to bring the certificate to a total of 14 credits.			
Choose from courses as listed in the following disciplines:			
English Literature and Journalism			
History			
Music			
Natural Science			
Social and Behavioral Science			
Speech/Drama			
Art			
Other Disciplines			
Interdisciplinary Humanities			
English Literature and Journalism			
ENGLISH 20801207	World Indigenous Literatures	3	3-0
ENGLISH 20801215	British Literature 1	3	3-0
ENGLISH 20801216	British Literature 2	3	3-0
ENGLISH 20801219	Western World Lit: Classical Antiquity to the Middle Ages	3	3-0

ENGLISH 20801220	Western World Lit: Early Renaissance to Present	3	3-0
ENGLISH 20801226	Introduction to African Literature	3	3-0
ENGLISH 20801230	Classical Mythology	3	3-0
ENGLISH 20801231	19th c. Russian Literature in Translation	3	3-0
ENGLISH 20801232	20th c. Russian/Soviet Literature in Translation	3	3-0
JOURNAL 20801252	World Issues Journalism	3	3-0
History			
HISTORY 20803204	Renaissance, Reformation, and Revolution	3	3-0
HISTORY 20803205	Europe and Modern World	3	3-0
HISTORY 20803208	From Pharaohs to Popes	3	3-0
HISTORY 20803220	History Of West Civilization 1	3	3-0
HISTORY 20803224	History of Sub Saharan Africa	3	3-0
HISTORY 20803225	World In 20th Century	3	3-0
HISTORY 20803229	Vietnam/American-1945-Present	3	3-0
HISTORY 20803233	Gender and Women's History in Cultural Representations	3	3-0
HISTORY 20803234	Gender and Women's Global History	3	3-0
HISTORY 20803242	History Nazi Germany-1933-1945	3	3-0
HISTORY 20803243	Modern Africa	3	3-0
Music			
MUSIC 20805207	World Music	3	3-0
MUSIC 20805279	World Drumming Ensemble 1	1	0-2
MUSIC 20805280	World Drumming Ensemble 2	1	0-2
MUSIC 20805281	World Drumming Ensemble 3	1	0-2
MUSIC 20805282	World Drumming Ensemble 4	1	0-2
Natural Science			
BIOLOGY 20806280	Environmental Issues	3	3-0
PHYSICS 20806290	Renewable Energy for International Development	3	3-0
Social and Behavioral Science			
ECON 20809214	Intro International Econ	3	3-0
POLISCI 20809223	International Relations	3	3-0
POLISCI 20809227	Political Theory	3	3-0
ECON 20809228	Environmental Economics	3	3-0
POLISCI 20809246	African Politics	3	3-0
SOCSCI 20809256	International Perspectives on Gender and Women	3	3-0
SOCSCI 20809257	Gender and Women's Studies-Study Abroad Experience	1	1-0
PHILOS 20809263	East/West World View	3	3-0
ANTHRO 20809280	General Anthropology	3	3-0
ANTHRO 20809281	Archaeology & Prehistoric World	3	3-0
ANTHRO 20809283	Cultural Anthropology & Human Diversity	3	3-0
ANTHRO 20809285	Anthropology of Myth, Magic, and Religion	3	3-0
Speech/Drama			
FILM 20810254	History Of World Cinema	3	3-0
Art			
ARTHIST 20815200	Art History: Ancient to Medieval	3	3-0
ARTHIST 20815210	Art History: Renaissance to Modern	3	3-0
ARTHIST 20815211	Art History: Women In Art	3	3-0
ARTHIST 20815228	Art History: Global Arts	3	3-0
Other Disciplines			
MKTG 10104180	Global Marketing	3	3-0
FSHNMKTG 10104183	International Business in Fashion	2	0-4
MKTG 10104187	Global Studies Seminar	3	3-0
PARALEG 10110171	Immigration Law	3	3-0
GLBLED 10140107	Perspectives on Study Abroad	1	1-0
INDSGN 10304129	History of Interior Design	3	3-0

CULARTS 10316144	Global Studies Culinary - Italy	3	2-2

Interdisciplinary Humanities

Students must meet the honors eligibility requirements to register for the following Honors courses. For more information, see the Honors Program page (https://madisoncollege.edu/honors).

HUMAN 20802802	Honors-Interdisciplinary Global Studies (2cr)	2	0-0
HUMAN 20802902	Honors-Interdisciplinary Global Studies (3cr)	3	0-0

Study Abroad Experience

Every student must complete one approved education abroad (or equivalent) experience, whether it is a short-term or long-term program. Some study abroad programs may also provide credits towards the certificate. To see a list of study abroad programs offered through Madison College, visit the Study Abroad Website (https://madisoncollege.edu/education-abroad). Students may inquire with the certificate advisor about the possibility of fulfilling this requirement through a service-learning experience.

Madison Area Technical College

Effective 2025-2026
Program Number: 103041

Interior Design

An Associate in Applied Arts Degree

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
INDSGN 10304100	Introduction to Interior Design	1	1-0
INDSGN 10304102	Studio 1 - Visual Design	3	1.5-3
INDSGN 10304106	Construction and Drafting for Interior Design	3	1.5-3
INDSGN 10304107	Furniture and Textiles	3	3-0
INDSGN 10304177	Technology for Interior Design 1	2	1-2
ENGLISH 10801195	Written Communication	3	3-0
Second Semester			
INDSGN 10304120	Tech for Interior Design 2	3	1-4
INDSGN 10304123	Studio 2 - Space Planning	3	1-4
INDSGN 10304127	Materials and Estimating	3	3-0
INDSGN 10304129	History of Interior Design	3	3-0
INDSGN 10304142	Professional Practice for Interior Design	3	3-0
COMM 10801196	Oral/Interpersonal Communication	3	3-0
Third Semester			
INDSGN 10304125	Residential Design	3	1.5-3
INDSGN 10304134	Commercial Design 1	3	2-2
INDSGN 10304179	Kitchen and Bath Design 1	3	1-4
INDSGN 10304180	Technology for Interior Design 3	2	1-2
MATH 10804123	Math with Business Applications	3	3-0
SOC 10809197	Contemporary American Society	3	3-0
Fourth Semester			
INDSGN 10304147	Portfolio Development	2	1-2
INDSGN 10304148	Design Around the World	3	3-0
INDSGN 10304182	Interior Design Internship	3	1-0
INDSGN 10304189	Kitchen and Bath Design 2	2	1-2
INDSGN 10304190	Commercial Design 2	2	1-2
PSYCH 10809199	Psychology Of Human Relations	3	3-0

Effective 2025-2026
Program Number: 905042CERT

Jail Officer

A Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
Courses			
CRIMJUST 30504361	Basic Jail Officer Academy - Phase 1	3	4-2
CRIMJUST 30504362	Basic Jail Officer Academy - Phase 2	3	2-4

Effective 2025-2026
Program Number: 908012CERT

Journalism

A Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
Required Courses			
JOURNAL 20801245	Introduction to Journalism	3	3-0
JOURNAL 20801253	Photo/Video Storytelling	3	2-2
JOURNAL 20801271	Journalism Practicum 1	1	0-2
Electives			
Students must also complete at least a minimum 6 credits from the following electives:			
PHOTO 10203173	Photojournalism	2	0-4
JOURNAL 20801251	Introduction to Mass Communication	4	4-0
JOURNAL 20801252	World Issues Journalism	3	3-0
JOURNAL 20801256	Science Communication	3	3-0
JOURNAL 20801272	Journalism Practicum 2	1	0-2
JOURNAL 20801273	Journalism Practicum 3	2	0-4
JOURNAL 20801274	Journalism Practicum 4	2	0-4
ART 20815239	Digital Photography	3	0-6
JOURNAL 20801269	On-Air Performance	3	2-2
HUMAN 20801254	Media and Democracy	3	3-0

Effective 2025-2026
Program Number: 500912

Laboratory Animal Caretaker Technician

Apprenticeship Completion

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester Courses			
PROFDEV 47196534	Individual Excellence	0.60	1.33-0
Second Semester Courses			
ENGLISH 10801195	Written Communication	3	3-0
COMM 10801196	Oral/Interpersonal Communication	3	3-0
Third Semester Courses			
BIOLOGY 10806105	Principles of Animal Biology	4	3-2

Effective 2025-2026
Program Number: 101101

Legal Studies/Paralegal

An Associate in Applied Science Degree

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
Prior to start of program			
PARALEG 10110175	Orientation to the Legal Profession	1	1-0
First Semester			
PARALEG 10110101	Introduction to Law	3	3-0
PARALEG 10110141	Computer Applications - Legal	3	3-0
PARALEG 10110173	Contract Law in a Global Economy	3	3-0
PSYCH 10809199	Psychology Of Human Relations	3	3-0
Choose one of the following two courses:			
ENGLISH 10801195	Written Communication	3	3-0
ENGLISH 20801201	English 1	3	3-0
Second Semester			
PARALEG 10110102	Civil Litigation I	3	3-0
PARALEG 10110104	Legal Research	3	3-0
COMM 10801196	Oral/Interpersonal Communication	3	3-0
SOC 10809197	Contemporary Amer Society	3	3-0
Choose one of the following two courses:			
PARALEG 10110171	Immigration Law	3	3-0
PARALEG 10110115	Administrative Law	3	3-0
Third Semester			
PARALEG 10110105	Legal Writing	3	3-0
PARALEG 10110106	Family Law	3	3-0
PARALEG 10110176	Career Building Techniques - Legal Studies/Paralegal	2	2-0
MATH 10804144	Math of Finance	3	3-0
Choose one of the following two courses:			
PARALEG 10110114	Administration of Estates - Legal Studies/Paralegal Program	3	3-0
PARALEG 10110103	Civil Litigation 2	3	3-0
Fourth Semester			
PARALEG 10110107	Legal Aspects of Business Organizations	3	3-0
PARALEG 10110142	Legal Internship	3	1-0
PHILOS 10809166	Intro to Ethics: Theory & App	3	3-0
Choose one of the following two courses:			
PARALEG 10110168	Criminal Law - Legal Studies/Paralegal	3	3-0
PARALEG 10110108	E-Discovery and Digital Tools	3	3-0
PARALEG 10110122	Bankruptcy Law	3	3-0
PARALEG 10110110	Real Estate Law – Legal Studies/Paralegal	3	3-0

Effective 2025-2026
Program Number: 311101

Legal Studies/Paralegal Post-Baccalaureate

A One Year Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
Prior to start of first semester			
PARALEG 10110175	Orientation to the Legal Profession	1	1-0
First Semester			
PARALEG 10110101	Introduction to Law	3	3-0
PARALEG 10110102	Civil Litigation I	3	3-0
PARALEG 10110104	Legal Research	3	3-0
PARALEG 10110141	Computer Applications - Legal	3	3-0
PARALEG 10110176	Career Building Techniques - Legal Studies/Paralegal	2	2-0
Second Semester			
PARALEG 10110105	Legal Writing	3	3-0
PARALEG 10110142	Legal Internship	3	1-0
PARALEG 10110173	Contract Law in a Global Economy	3	3-0
PARALEG 10110107	Legal Aspects of Business Organizations	3	3-0
PARALEG 10110106	Family Law	3	3-0

Effective 2025-2026
Program Number: 314201

Machine Tool Operation

A Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
MACHT 10606200	Interpreting Engineering Drawings	2	0-4
MACHT 32420322	Machine Tool 1	4	2-6
MACHT 32420323	Machine Tool 2	5	3-7
MACHT 32420346	Intro to CNC - G-code Programming	2	2-2
MACHT 32420351	Elements of Basic Metrology	2	4-0
MACHT 32420711	Math for the Machine Trades	2	4-0
Second Semester			
QUALCTRL 31623110	Introduction to Geometric Dimensioning and Tolerancing (GDT)	1	2-0
MACHT 32420324	Machine Tool 3	4	2-6
MACHT 32420325	Machine Tool 4	5	3-7
MACHT 32420337	Manufacturing w/Solid Modeling-2D	2	4-0
MACHT 32420348	Applied CNC-Conversational and Setup	2	2-2
MACHT 32420390	Fundamentals of Metallurgy	2	4-0
MACHT 32420393	Machine Tool-Occupational Development	1	2-0

Effective 2025-2026
Program Number: 324205

Machine Tooling Technics

A Two Year Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
MACHT 10606200	Interpreting Engineering Drawings	2	0-4
MACHT 32420322	Machine Tool 1	4	2-6
MACHT 32420323	Machine Tool 2	5	3-7
MACHT 32420346	Intro to CNC - G-code Programming	2	2-2
MACHT 32420351	Elements of Basic Metrology	2	4-0
MACHT 32420711	Math for the Machine Trades	2	4-0
Second Semester			
QUALCTRL 31623110	Introduction to Geometric Dimensioning and Tolerancing (GDT)	1	2-0
MACHT 32420324	Machine Tool 3	4	2-6
MACHT 32420325	Machine Tool 4	5	3-7
MACHT 32420337	Manufacturing w/Solid Modeling-2D	2	4-0
MACHT 32420348	Applied CNC-Conversational and Setup	2	2-2
MACHT 32420390	Fundamentals of Metallurgy	2	4-0
MACHT 32420393	Machine Tool - Occupational Development	1	2-0
Third Semester			
MACHT 32420326	Machine Tool 5	4	2-6
MACHT 32420327	Machine Tool 6	5	2-8
MACHT 32420336	Manufacturing w/Solid Modeling 3D	2	4-0
MACHT 32420389	Applied CNC - Intermediate Operations	2	1-3
MACHT 32420394	Tool Making Theory 1	2	4-0
Fourth Semester			
WELD 31442318	Gas Tungsten Arc Welding 1 (GTAW/TIG)	2	0-4
MACHT 32420328	Machine Tool 7	4	2-6
MACHT 32420329	Machine Tool 8	5	2-8
MACHT 32420339	Manufacturing w/Solid Modeling-Advanced	2	1.55-2.44
MACHT 32420395	Tool Making Theory 2	2	4-0
MACHT 32420491	Applied CNC - Advanced Operations	2	0-4

Effective 2025-2026
Program Number: 504202

Machinist Apprenticeship

Apprenticeship Completion

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
MACHT 50420740	Mathematics for the Machine Trades	1.25	1.38-1.11
MACHT 50420720	Cut-Off Machines for Machine Trades Apprentices	0.25	0.33-0.16
MACHT 50420741	Metallurgy & Materials for Machine Trades Apprentices	0.50	0.5-0.5
Second Semester			
MACHT 50420713	Precision Measurement for Machine Tool Trade Apprentices	1	1.61-0.38
MACHT 50420714	Engineering Drawings for Machine Tool Trades Apprentices	1	1.61-0.38
Third Semester			
MACHT 50420742	Turning Machines for Machine Trades Apprentices	1	1-1
MACHT 50420743	Milling Machines for Machine Trades Apprentices	1	1-1
Fourth Semester			
MACHT 50420719	Grinding Machines for Machine Trades Apprentices	0.50	0.72-0.27
MACHT 50420744	CAD/CAM for Machine Trades	1.50	1.11-1.88
Fifth Semester			
MACHT 50420726	Jig and Fixture Design for Machine Trades Apprentices	0.50	0.72-0.27
MACHT 50420727	Geometric Design and Tolerancing for Machine Trades Apprentices	0.50	0.72-0.27
MACHT 50420745	CNC Programming and Operations 1 for Machine Trades Apprentices	1	2-0
Sixth Semester			
MACHT 50420746	CNC Programming and Operations 2 for Machine Tool Trades Apprentices	2	0-4

Effective 2025-2026
Program Number: 504231

Maintenance Mechanic/Millwright Apprentice

Apprenticeship Completion

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
INDMECH 10462108	Green Awareness for Maintenance	1	0-2
MACHT 10606201	Interpreting Engineering Drawings Part A	1	0-2
MILLWRGT 32423714	Rigging for MMMP Trades	1	1-1
Second Semester			
HVAC 10601304	Industrial Fluid Distribution Systems	2	0-4
Third Semester			
INDMECH 10462106	Mechanisms 1 for Industry	1	0-2
INDMECH 10462107	Mechanisms 2 for Industry	1	0-2
Fourth Semester			
INDMECH 10462104	Fluid Power 1 for Industry	1	0-2
INDMECH 10462109	Maintenance Operations 1	1	0-2
Fifth Semester			
MATH 31804379	Vocational Math 1	1	2-0
MACHT 32420349	Basic Metrology (Part A)	1	2-0
Sixth Semester			
MACHT 32420390	Fundamentals of Metallurgy	2	4-0
Seventh Semester			
INDMECH 10462105	Fluid Power 2 for Industry	2	0-4
Eighth Semester			
MTLFAB 10457100	Metal Repair Techniques	2	0-4

Effective 2025-2026
Program Number: 504641

Maintenance Technician Apprentice

Apprenticeship Completion

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
INDMECH 10462321	DCAC 1 DC Theory	1	0-2
INDMECH 10462329	DCAC 2 AC Theory	1	0-2
INDMECH 10462323	Controls 1	2	0-4
Second Semester			
INDMECH 10462325	Controls 2	2	0-4
INDMECH 10462331	DCAC 3 Theory	1	0-2
EMTEC 10620100	Introduction to PLCs	1	0-2
Third Semester			
ELEC-IND 10413752	Codes for Industrial Electricians 1: Introduction to the NEC	1	1-0
ELEC-IND 10413753	Codes for Industrial Electricians 2: OCPD and Electrical Device Installations	1	1-0
INDMECH 10462106	Mechanisms 1 for Industry	1	0-2
INDMECH 10462107	Mechanisms 2 for Industry	1	0-2
MACHT 10606201	Interpreting Engineering Drawings Part A	1	0-2
Fourth Semester			
ELEC-IND 10413754	Codes for Industrial Electricians 3: Article 250 Part A	1	1-0
ELEC-IND 10413755	Codes for Industrial Electricians 4: Article 250 Part B	1	1-0
INSAFE 10449100	Safety for Industry	1	0-2
INDMECH 10462104	Fluid Power 1 for Industry	1	0-2
INDMECH 10462109	Maintenance Operations 1	1	0-2
Fifth Semester			
ELEC-IND 10413756	Codes for Industrial Electricians 5: Article 300, Cords/Cables, Hazardous Installations	1	1-0
ELEC-IND 10413758	Codes for Industrial Electricians 7: Motors and Generators	1	1-0
ELEC-IND 32413761	Industrial Electrician Motors & Generators	1	1-1
Sixth Semester			
ELEC-IND 10413757	Codes for Industrial Electricians 6: Conductors, Raceways, Data/Communication Cables	1	1-0
ELEC-IND 10413759	Codes for Industrial Electricians 8: Transformers	1	1-0
ELEC-IND 32413760	Industrial Electrician Transformers	1	1-1
Seventh Semester			
INDMECH 10462105	Fluid Power 2 for Industry	2	0-4
Eighth Semester			
ELEC-IND 10413765	Power Systems & Variable Speed Drives for Industrial Electricians	3	2-2

Madison Area Technical College

Effective 2025-2026
Program Number: 101043

Marketing

An Associate in Applied Science Degree

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
ENGLISH 10801195	Written Communication	3	3-0
MKTG 10104102	Marketing Principles	3	3-0
MKTG 10104104	Selling Principles	3	3-0
MKTG 10104113	Leadership Ethics in the Digital Age	3	3-0
ADMINPRF 10106168	Microsoft Office for Business Applications	3	1-4
Second Semester			
MKTG 10104112	Marketing Design Strategies	3	3-0
MKTG 10104114	Social Media Marketing	3	3-0
MKTG 10104125	Advertising Principles	3	3-0
SPEECH 10801198	Speech	3	3-0
MATH 10804144	Math of Finance	3	3-0
Third Semester			
MKTG 10104126	Introduction to Public Relations	3	3-0
MKTG 10104164	Marketing Digital Design	3	3-0
MKTG 10104162	Advanced Social Marketing Technologies	3	3-0
MKTG 10104169	Digital Marketing	3	3-0
	Marketing Approved Elective (See list below)	3	
Fourth Semester			
ECON 10809195	Economics	3	3-0
PSYCH 10809199	Psychology Of Human Relations	3	3-0
MKTG 10104103	Marketing Research & Analytics	3	3-0
MKTG 10104115	Capstone Campaign	3	3-0
MKTG 10104180	Global Marketing	3	3-0
MKTG 10104188	Marketing Portfolio	1	0-2
Marketing Approved Elective (3 credits in Third Semester)			
MKTG 10104165	Marketing Internship	3	1-0
GLBLED 10140333	Interdisciplinary Global Studies Abroad	3	3-0
MKTG 10104802	Honors - Marketing	3	0-0
ADMINPRF 10106100	Mindset for Success	3	3-0
BUSADM 10102134	Introduction to Business	3	3-0

Effective 2025-2026
Program Number: 9010611CER

Marketing Essentials

A Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
Required Courses			
ADMINPRF 10106164	Customer Contact Skills	2	2-0
MKTG 10104102	Marketing Principles	3	3-0
MKTG 10104114	Social Media Marketing	3	3-0
ADMINPRF 10106168	Microsoft Office for Business Applications	3	1-4

Effective 2025-2026
Program Number: 301043

Marketing-Social Media

A Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
MKTG 10104102	Marketing Principles	3	3-0
MKTG 10104114	Social Media Marketing	3	3-0
MKTG 10104162	Advanced Social Marketing Technologies	3	3-0
MKTG 10104164	Marketing Digital Design	3	3-0
MKTG 10104169	Digital Marketing	3	3-0

Effective 2025-2026
Program Number: 106061

Mechanical Design Technology

An Associate in Applied Science Degree

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
It is strongly recommended to meet with an academic advisor or faculty advisor upon admission to the program and prior to enrolling in courses. *For students planning on transferring, consult your advisor for the best course choices when options are available.*			
First Semester			
MECTEC 10606100	Engineering Technology Communications	3	1-4
MECTEC 10606101	Engineering Technology Fundamentals	2	1-2
MECTEC 10606120	2-D CAD (Computer Aided Drafting)	1	1-0
MECTEC 10606130	SolidWorks 1	1	1-0
MECTEC 10606131	SolidWorks 2	2	1-2
MECTEC 10606160	Fundamentals of Manufacturing/Engineering Materials	2	1-2
ENGLISH 10801195	Written Communication	3	3-0
MATH 10804115	College Technical Math 1	5	5-0
Second Semester			
MECTEC 10606132	SolidWorks 3	2	1-2
MECTEC 10606140	Dimensioning Practices	1	1-0
MECTEC 10606141	Geometric Dimensioning & Tolerancing	1	1-0
MECTEC 10606150	Rapid Prototyping	2	1-2
MECTEC 10606155	Statics And Mechanics	3	2-2
MECTEC 10606161	Manufacturing Processes	2	1-2
MECTEC 10606170	Strength Of Materials	3	2-2
MECTEC 10606193	Career Development - Mechanical Design Program	1	1-0
Third Semester (Summer)			
MECTEC 10606188	Mechanical Design Technology Field Study Experience	1	0-2
Fourth Semester			
MTLFAB 10457100	Metal Repair Techniques	2	0-4
INDMECH 10462104	Fluid Power 1 for Industry	1	0-2
MECTEC 10606104	Engineering Technology Practices	3	1-4
MECTEC 10606116	Machine Design	3	2-2
MECTEC 10606125	Plastics for Mechanical Design	3	2-2
MECTEC 10606163	Engineering Technology Project Management	2	1-2
MECTEC 10606164	Quality Systems	2	1-2
PHILOS 10809166	Intro to Ethics: Theory & App	3	3-0
Fifth Semester			
MECTEC 10606112	Tool Design Technology	3	1-4
MECTEC 10606186	Engineering Technology Applications	3	0-6
ENGLISH 10801197	Technical Reporting	3	3-0
PHYSICS 10806154	General Physics 1	4	3-2
PSYCH 10809199	Psychology of Human Relations	3	3-0

Effective 2025-2026
Program Number: 506201

Mechatronics Technician Apprenticeship

Apprenticeship Completion

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
INDMECH 10462321	DCAC 1 DC Theory	1	0-2
INDMECH 10462323	Controls 1	2	0-4
INDMECH 10462329	DCAC 2 AC Theory	1	0-2
Second Semester			
INSAFE 10449100	Safety for Industry	1	0-2
EMTEC 10620100	Introduction to PLCs	1	0-2
Third Semester			
ELEC-IND 10413752	Codes for Industrial Electricians 1: Introduction to the NEC	1	1-0
ELEC-IND 10413753	Codes for Industrial Electricians 2: OCPD and Electrical Device Installations	1	1-0
INDMECH 10462106	Mechanisms 1 for Industry	1	0-2
MACHT 10606201	Interpreting Engineering Drawings Part A	1	0-2
ELEC-IND 32413770	Intermediate PLCs for Industrial Electricians	1	1-1
Fourth Semester			
INDMECH 10462104	Fluid Power 1 for Industry	1	0-2
ELEC-IND 32413771	Advanced PLCs for Industrial Electricians	1	1-1
Fifth Semester			
INDMECH 10462102	Introduction to Logic & Troubleshooting	1	0-2
MATH 31804379	Vocational Math 1	1	2-0
Sixth Semester			
EMTEC 10620106	Robotics 1 - Basic Operations for Industry	1	0-2
EMTEC 10620112	Introduction to Integration	2	0-4
Seventh Semester			
INDMECH 10462105	Fluid Power 2 for Industry	2	0-4
EMTEC 10620108	Robotics 2 - Programming for Industry	2	0-4
Eighth Semester			
ELEC-IND 10413765	Power Systems & Variable Speed Drives for Industrial Electricians	3	2-2
MTLFAB 10457100	Metal Repair Techniques	2	0-4

Effective 2025-2026
Program Number: 101604

Medical Administrative Specialist

An Associate in Applied Science Degree

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
ADMINPRF 10106100	Mindset for Success	3	3-0
ADMINPRF 10106107	Business Document Applications	3	1-4
ADMINPRF 10106108	Proofreading and Editing	3	2-2
ADMINPRF 10106139	Keyboard Skillbuilding	1	0.33-1.33
MEDADMIN 10160178	Medical Language for the Business Professional 1	3	2-2
ENGLISH 10801195	Written Communication	3	3-0
Second Semester			
COMPSOFT 10103165	Outlook	1	0.33-1.33
ADMINPRF 10106109	Business Spreadsheet Applications	3	1-4
ADMINPRF 10106164	Customer Contact Skills	2	2-0
MEDADMIN 10160165	Medical Administrative Procedures	3	1-4
MEDADMIN 10160179	Medical Language for the Business Professional 2	3	2-2
COMM 10801196	Oral/Interpersonal Communication	3	3-0
MATH 10804123	Math with Business Applications	3	3-0
Third Semester			
ADMINPRF 10106106	Business Writing and Research	3	2-2
ADMINPRF 10106112	Event Planning & Coordination	3	2-2
ADMINPRF 10106190	Professional Development	1	1-0
ADMINPRF 10106231	Business Presentations and Publications	3	1-4
MEDADMIN 10160166	Clinical & Business Documentation Techniques	3	2-2
SOC 10809172	Introduction to Diversity Studies	3	3-0
Fourth Semester			
COMPSOFT 10103169	Collaboration Tools	1	0.33-1.33
ADMINPRF 10106126	Software Capstone	3	1-4
MEDADMIN 10160177	Specialized Insurance Claims	3	2-2
MEDADMIN 10160192	Applied Clinical Documentation	3	2-2
MEDADMIN 10160199	Medical Administrative Specialist Practicum	1	0-2
PSYCH 10809199	Psychology Of Human Relations	3	3-0

Effective 2025-2026
Program Number: 315091

Medical Assistant

A One Year Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
MASST 31509301	Medical Asst Admin Procedures	2	2-2
MASST 31509302	Human Body in Health & Disease	3	6-0
MASST 31509303	Medical Asst Lab Procedures 1	2	2-2
MASST 31509304	Medical Asst Clin Procedures 1	4	4-4
FOUNHLTH 31501101	Medical Terminology	3	6-0
Second Semester			
MASST 31509308	Pharmacology for Allied Health	2	4-0
MASST 31509305	Med Asst Lab Procedures 2	2	2-2
MASST 31509306	Med Asst Clin Procedures 2	3	2-4
MASST 31509307	Medical Office Insurance & Finance	2	4-0
MASST 31509309	Medical Law, Ethics and Professionalism	2	4-0
MASST 31509310	Medical Assistant Practicum	3	2-0

Effective 2025-2026
Program Number: 311605

Medical Billing

A One Year Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
ADMINPRF 10106100	Mindset for Success	3	3-0
ADMINPRF 10106107	Business Document Applications	3	1-4
ADMINPRF 10106139	Keyboard Skillbuilding	1	0.33-1.33
MEDADMIN 10160178	Medical Language for the Business Professional 1	3	2-2
ENGLISH 10801195	Written Communication	3	3-0
Second Semester			
COMPSOFT 10103165	Outlook	1	0.33-1.33
ADMINPRF 10106109	Business Spreadsheet Applications	3	1-4
ADMINPRF 10106164	Customer Contact Skills	2	2-0
MEDADMIN 10160165	Medical Administrative Procedures	3	1-4
MEDADMIN 10160177	Specialized Insurance Claims	3	2-2
MEDADMIN 10160179	Medical Language for the Business Professional 2	3	2-2

Effective 2025-2026
Program Number: 315302

Medical Coding Specialist

A One Year Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
Pre-Program Courses			
FOUNHLTH 10501153	Body Structure & Function	3	3-0
FOUNHLTH 10501101	Medical Terminology	3	3-0
COMPSOFT 10103121	Microsoft Windows	1	0.33-1.33
FOUNHLTH 10501107	Digital Literacy for Healthcare	2	1-2
Core Program Courses			
Cluster 1			
MEDREC 10530162	Foundations of HIM	3	1-4
MEDREC 10530182	Human Disease for Health Professions	3	1-4
MEDREC 10530197	ICD Diagnosis Coding	3	1-4
Cluster 2			
MEDREC 10530184	CPT Coding	3	1-4
MEDREC 10530159	Healthcare Revenue Management	3	1-4
MEDREC 10530189	Management of Coding Services	1	0.5-1
MEDREC 10530199	ICD Procedure Coding	2	0.5-3
Cluster 3			
MEDREC 10530165	Intermediate Coding	3	1-4
MEDREC 10530187	Advanced CPT Coding	3	1-4
MEDREC 10530188	Certification & Professional Development	2	0.5-3

Effective 2025-2026
Program Number: 105131

Medical Laboratory Technician

An Associate in Applied Science Degree

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
LABASST 10513110	Basic Lab Skills	1	0.5-1
LABASST 10513111	Phlebotomy	2	3-0
LABASST 10513115	Basic Immunology Concepts	2	2-0
BIOLOGY 10806177	Gen Anatomy & Physiology	4	3-2
CHEM 10806186	Intro to Biochemistry	4	3-2
ENGLISH 10801195	Written Communication	3	3-0
LABASST 10513113	QA Lab Math	1	1-0
Second Semester			
LABASST 10513114	Urinalysis	2	1-2
LABASST 10513120	Basic Hematology	3	2-2
LABASST 10513116	Clinical Chemistry	4	3-2
LABASST 10513121	Coagulation	1	0.5-1
SOC 10809197	Contemporary American Society	3	3-0
BIOLOGY 10806197	Microbiology-University Medical	4	2-4
Third Semester (summer)			
SPEECH 10801198	Speech	3	3-0
PSYCH 10809199	Psychology Of Human Relations	3	3-0
Fourth Semester			
LABASST 10513133	Clinical Microbiology	4	2-4
LABASST 10513170	Introduction to Molecular Diagnostics	2	2-0
LABASST 10513109	Blood Bank	4	2-4
LABASST 10513130	Advanced Hematology	2	1-2
Fifth Semester			
LABASST 10513140	Advanced Microbiology	2	2-0
LABASST 10513141	Pre-Clinical Experience	2	1-0
LABASST 10513151	Clinical Experience 1	3	1-0
LABASST 10513152	Clinical Experience 2	4	2-0
LABASST 10513153	Capstone Project	1	0-0

Effective 2025-2026
Program Number: 314572

Metal Fabrication

A One Year Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
INSAFE 10449100	Safety for Industry	1	0-2
MACHT 10606200	Interpreting Engineering Drawings	2	0-4
MACHT 32420349	Basic Metrology (Part A)	1	2-0
WELD 31442332	Oxy-Fuel Cutting 1	1	1-1
WELD 31442318	Gas Tungsten Arc Welding 1 (GTAW/TIG)	2	0-4
WELD 31442323	Basic Gas Metal Arc Welding (GMAW/MIG)	2	2-2
MTLFAB 31457301	Fabrication 1	2	1-3
MTLFAB 31457302	Fabrication 2	2	1-3
MTLFAB 31457305	CNC Operation	2	1-3
MTLFAB 31457309	Math For Metal Fabrication	1	2-0
Second Semester			
WELD 31442326	Flux Cored & Advanced Gas Metal Arc Welding (FCAW/GMAW)	2	1-3
WELD 31442328	Gas Tungsten Arc Welding 2 (GTAW/TIG)	2	1-3
WELD 31442390	Fundamentals of Metallurgy	2	4-0
MTLFAB 31457303	Fabrication 3	2	1-3
MTLFAB 31457304	Fabrication 4	2	1-3
MTLFAB 31457306	CNC Programming	2	1-3
MTLFAB 31457307	Jig and Fixture Development	2	1-3
MTLFAB 31457308	Metal Fabrication Occupational Development	1	2-0

Effective 2025-2026
Program Number: 301066

Microsoft Office

A Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
Courses			
COMPSOFT 10103165	Outlook	1	0.33-1.33
ADMINPRF 10106107	Business Document Applications	3	1-4
ADMINPRF 10106109	Business Spreadsheet Applications	3	1-4
ADMINPRF 10106231	Business Presentations and Publications	3	1-4
COMPSOFT 10103121	Microsoft Windows	1	0.33-1.33
COMPSOFT 10103145	Access	1	0.33-1.33

Effective 2025-2026
Program Number: 900074CERT

Molecular Biology Fundamentals

A Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Term Course			
BIOTECH 10007124	Molecular Biology 1	3	0-6
Complete one of the following courses:			
BIOLOGY 20806219	Biology for Innovators	1	0-2
BIOTECH 10007103	Biotechnology Laboratory Skills for a Regulated Workplace	3	0-6
Second Term Courses			
BIOTECH 10007125	Research Methods in Molecular Biology	3	0-6

Effective 2025-2026
Program Number: 305431

Nursing Assistant

A Less Than One Year Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
Fall, Spring or Summer Semester			
NURSNA 30543300	Nursing Assistant	3	3.33-1.66

Madison Area Technical College

Effective 2025-2026
Program Number: 105141

Occupational Therapy Assistant

An Associate in Applied Arts Degree

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
Pre-Occupational Therapy Assistant Courses			
The following course must be completed prior to acceptance into Occupational Therapy courses:			
BIOLOGY 10806177	Gen Anatomy & Physiology	4	3-2
ENGLISH 10801195	Written Communication	3	3-0
PSYCH 10809198	Introduction to Psychology	3	3-0
First Semester			
OTASST 10514171	Introduction to Occupational Therapy	3	2-2
OTASST 10514172	Medical and Psychosocial Conditions	3	2-2
OTASST 10514173	Activity Analysis and Application	2	1-2
Second Semester			
OTASST 10514174	OT Performance Skills	4	0-8
OTASST 10514175	Psychosocial Practice	3	1-4
OTASST 10514176	OT Theory and Practice	3	1-4
OTASST 10514178	Geriatric Practice	3	1-4
PSYCH 10809159	Abnormal Psychology	3	3-0
SPEECH 10801198	Speech	3	3-0
Summer Semester			
PSYCH 10809188	Developmental Psychology	3	3-0
SOC 10809172	Introduction to Diversity Studies	3	3-0
Third Semester			
OTASST 10514179	Community Practice	2	1-2
OTASST 10514189	OT Phys Rehab Practice	4	0-8
OTASST 10514190	OT Pediatric Practice	4	2-4
OTASST 10514184	OTA Fieldwork 1	2	1-2
Fourth Semester			
OTASST 10514185	OT Practice and Management	2	2-0
OTASST 10514186	OTA Fieldwork IIA	5	0-0
OTASST 10514187	OTA Fieldwork IIB	5	0-0

Effective 2025-2026
Program Number: 311061

Office Assistant

A Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
COMPSOFT 10103121	Microsoft Windows	1	0.33-1.33
COMPSOFT 10103165	Outlook	1	0.33-1.33
ADMINPRF 10106100	Mindset for Success	3	3-0
ADMINPRF 10106107	Business Document Applications	3	1-4
ADMINPRF 10106139	Keyboard Skillbuilding	1	0.33-1.33
ENGLISH 10801195	Written Communication	3	3-0
MATH 10804123	Math with Business Applications	3	3-0
Second Semester			
COMPSOFT 10103145	Access	1	0.33-1.33
COMPSOFT 10103169	Collaboration and Productivity Tools	1	0.33-1.33
ADMINPRF 10106108	Proofreading and Editing	3	2-2
ADMINPRF 10106109	Business Spreadsheet Applications	3	1-4
ADMINPRF 10106121	Office Technology and Procedures	3	2-2
ADMINPRF 10106164	Customer Contact Skills	2	2-0
ADMINPRF 10106231	Business Presentations and Publications	3	1-4

Madison Area Technical College

Effective 2025-2026
Program Number: 101069

Office Management

An Associate in Applied Science Degree

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
BUSADM 10102134	Introduction to Business	3	3-0
BUSADM 10102143	Organizational Management	3	3-0
COMPSOFT 10103169	Collaboration and Productivity Tools	1	0.33-1.33
ADMINPRF 10106100	Mindset for Success	3	3-0
ADMINPRF 10106107	Business Document Applications	3	1-4
MATH 10804144	Math of Finance	3	3-0
Second Semester			
BUSADM 10102135	Project Management Fundamentals	3	3-0
COMPSOFT 10103165	Outlook	1	0.33-1.33
COMPSOFT 10103186	MS (Microsoft) Project	2	0.5-3
ADMINPRF 10106109	Business Spreadsheet Applications	3	1-4
ADMINPRF 10106164	Customer Contact Skills	2	2-0
ADMINPRF 10106231	Business Presentations and Publications	3	1-4
ENGLISH 10801195	Written Communication	3	3-0
Third Semester			
ACCTG 10101111	Accounting 1 - Principles	4	4-0
ADMINPRF 10106106	Business Writing and Research	3	2-2
ADMINPRF 10106172	Administrative Office Management	3	2-2
COMM 10801196	Oral/Interpersonal Communication	3	3-0
SOC 10809172	Introduction to Diversity Studies	3	3-0
Fourth Semester			
ACCTG 10101143	QuickBooks	2	1-2
ACCTG 10101154	Payroll Accounting	1	0.5-1
ADMINPRF 10106112	Event Planning & Coordination	3	2-2
ADMINPRF 10106190	Professional Development	1	1-0
HRMGT 10116145	Introduction to Human Resources	3	3-0
PSYCH 10809199	Psychology of Human Relations	3	3-0

Effective 2025-2026
Program Number: 505161

Ophthalmic Assistant

Apprenticeship Completion

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester Courses			
OPTOMET 31516301	Ophthalmic Pre-Testing	3	3-3
OPTOMET 31516305	Basic Optical Concepts	3	3-3
OPTOMET 31516315	Ocular Anatomy	2	3-1
Second Semester Courses			
OPTOMET 31516327	Clinical Ophthalmic Procedures	2	0-4
OPTOMET 31516330	Contact Lenses	3	3-3
OPTOMET 31516335	Ophthalmic Specialty Testing	3	4-2
OPTOMET 31516345	Preclinical	2	0-4

Effective 2025-2026
Program Number: 905161CERT

Ophthalmic Assistant

A Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
OPTOMET 31516325	Optical Dispensing 1	3	3-3
OPTOMET 31516301	Ophthalmic Pre-Testing	3	3-3
OPTOMET 31516305	Basic Optical Concepts	3	3-3
OPTOMET 31516315	Ocular Anatomy	2	3-1
OPTOMET 31516339	Human Relations - Optometric Technician Program	1	2-0
Second Semester			
OPTOMET 31516327	Clinical Ophthalmic Procedures	2	0-4
OPTOMET 31516326	Optical Dispensing 2	2	2-2
OPTOMET 31516330	Contact Lenses	3	3-3
OPTOMET 31516335	Ophthalmic Specialty Testing	3	4-2
OPTOMET 31516340	Patient Relations/Pract Manage	2	4-0
OPTOMET 31516345	Preclinical	2	0-4
OPTOMET 31516350	Clinical Experience	3	1-0

Effective 2025-2026
Program Number: 315162

Optometric Technician

A One Year Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
OPTOMET 31516325	Optical Dispensing 1	3	3-3
OPTOMET 31516301	Ophthalmic Pre-Testing	3	3-3
OPTOMET 31516305	Basic Optical Concepts	3	3-3
OPTOMET 31516315	Ocular Anatomy	2	3-1
OPTOMET 31516339	Human Relations - Optometric Technician Program	1	2-0
Second Semester			
OPTOMET 31516326	Optical Dispensing 2	2	2-2
OPTOMET 31516330	Contact Lenses	3	3-3
OPTOMET 31516335	Ophthalmic Specialty Testing	3	4-2
OPTOMET 31516340	Patient Relations/Pract Manage	2	4-0
OPTOMET 31516345	Preclinical	2	0-4
OPTOMET 31516350	Clinical Experience	3	1-0

Effective 2025-2026
Program Number: 315162-ET

Optometric Technician (online offering)

A One Year Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
Online First Semester			
OPTOMET 31516315	Ocular Anatomy	2	3-1
OPTOMET 31516301	Ophthalmic Pre-Testing	3	3-3
OPTOMET 31516339	Human Relations - Optometric Technician Program	1	2-0
Online Second Semester			
OPTOMET 31516305	Basic Optical Concepts	3	3-3
OPTOMET 31516325	Optical Dispensing 1	3	3-3
Online Third Semester			
OPTOMET 31516326	Optical Dispensing 2	2	2-2
OPTOMET 31516335	Ophthalmic Specialty Testing	3	4-2
OPTOMET 31516346	Preclinic A	1	2-0
Online Fourth Semester			
OPTOMET 31516330	Contact Lenses	3	3-3
OPTOMET 31516340	Patient Relations/Pract Manage	2	4-0
OPTOMET 31516347	Preclinic B	1	2-0

Madison Area Technical College

Effective 2025-2026
Program Number: 315313

Paramedic

A Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
EMS 10531910	Introduction to Paramedicine	1	1-0
EMS 10531911	EMS Fundamentals	2	2-0
EMS 10531912	Paramedic Medical Principles	4	4-0
EMS 10531913	Adv Patient Asses Principles	3	2-2
EMS 10531914	Adv Pre-Hospital Pharmacology	3	2-2
EMS 10531915	Paramedic Respiratory Management	2	1-2
EMS 10531916	Paramedic Cardiology	4	3-2
EMS 10531925	Paramedic Clinical 1	1	0-0
EMS 10531926	Paramedic Clinical 2	1	0-0
Second Semester			
EMS 10531918	Advanced Emergency Resuscitation	1	0-2
EMS 10531919	Paramedic Medical Emergencies	4	4-0
EMS 10531920	Paramedic Trauma	3	2-2
EMS 10531921	Special Patient Populations	3	2-2
EMS 10531922	EMS Operations	1	1-0
EMS 10531927	Paramedic Clinical 3	1	0-0
EMS 10531929	Paramedic Clinical 4	1	0-0
Third Semester - Summer			
EMS 10531923	Paramedic Capstone	1	0-2
EMS 10531928	Paramedic Field Internship	3	0-0

Madison Area Technical College

Effective 2025-2026
Program Number: 105311

Paramedic Technician

An Associate in Applied Science Degree

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
EMS 10531910	Introduction to Paramedicine	1	1-0
EMS 10531911	EMS Fundamentals	2	2-0
EMS 10531912	Paramedic Medical Principles	4	4-0
EMS 10531913	Adv Patient Asses Principles	3	2-2
EMS 10531914	Adv Pre-Hospital Pharmacology	3	2-2
EMS 10531915	Paramedic Respiratory Management	2	1-2
EMS 10531916	Paramedic Cardiology	4	3-2
EMS 10531925	Paramedic Clinical 1	1	0-0
EMS 10531926	Paramedic Clinical 2	1	0-0
Second Semester			
EMS 10531918	Advanced Emergency Resuscitation	1	0-2
EMS 10531919	Paramedic Medical Emergencies	4	4-0
EMS 10531920	Paramedic Trauma	3	2-2
EMS 10531921	Special Patient Populations	3	2-2
EMS 10531922	EMS Operations	1	1-0
EMS 10531927	Paramedic Clinical 3	1	0-0
EMS 10531929	Paramedic Clinical 4	1	0-0
Third Semester- Summer			
EMS 10531923	Paramedic Capstone	1	0-2
EMS 10531928	Paramedic Field Internship	3	0-0
Fourth Semester			
ENGLISH 10801195	Written Communication	3	3-0
BIOLOGY 10806177	General Anatomy & Physiology	4	3-2
ENGLISH 10801197	Technical Reporting	3	3-0
PSYCH 10809199	Psychology Of Human Relations	3	3-0
Fifth Semester			
COMM 10801196	Oral/Interpersonal Communication	3	3-0
MATH 10804134	Mathematical Reasoning	3	2-2
SOC 10809172	Introduction to Diversity Studies	3	3-0

Effective 2025-2026
Program Number: 305132

Phlebotomist/Specimen Processor

A Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
COURSES			
LABASST 10513110	Basic Lab Skills	1	0.5-1
LABASST 10513111	Phlebotomy	2	3-0

Effective 2025-2026
Program Number: 102031

Photography

An Associate in Applied Arts Degree

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
PHOTO 10203104	Image Editing and Workflow	2	0-4
PHOTO 10203105	Photo Composition	2	2-0
PHOTO 10203107	Camera & Flash Essentials	3	0-6
PHOTO 10203120	Lighting Technique	2	0-4
ENGLISH 10801195	Written Communication	3	3-0
MATH 10804107	College Mathematics	3	2-2
Second Semester			
PHOTO 10203108	Studio Photography	3	0-6
PHOTO 10203141	Digital Color Workflow	3	0-6
PHOTO 10203173	Photojournalism	2	0-4
VIDAUD 10206130	Video Production	3	0-6
COMM 10801196	Oral/Interpersonal Communication	3	3-0
Third Semester			
PHOTO 10203121	Commercial Photography 1	3	0-6
PHOTO 10203124	Portrait Photography	2	0-4
PHOTO 10203134	Advanced Image Editing	3	0-6
PHOTO 10203174	Photography on Location	3	0-6
ELECTIVE	Elective	3	0-0
SOC 10809197	Contemporary American Society	3	3-0
Fourth Semester			
PHOTO 10203123	Commercial Photography 2	3	0-6
PHOTO 10203125	Business of Photography	2	2-0
PHOTO 10203126	Advanced Portrait Photography	2	0-4
PHOTO 10203143	Photography Portfolio Preparation	3	0-6
PHOTO 10203144	Trends in Digital Photography	1	0-2
PSYCH 10809199	Psychology Of Human Relations	3	3-0
Recommended Electives			
PHOTO 10203199	Photography Internship	1	0-0
PHOTO 10203129	Professional Nature and Conservation Photography	2	1-2

Effective 2025-2026
Program Number: 504275

Plumbing Apprentice

Apprenticeship Completion

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
PLUMBNG 50427751	Sanitary Drains 1	2	3.6-0.4
Second Semester			
PLUMBNG 50427752	Vents and Venting Systems	2	3.6-0.4
Third Semester			
PLUMBNG 50427753	Water Distribution 1	2	3.6-0.4
Fourth Semester			
PLUMBNG 50427754	Water Distribution 2	2	3.6-0.4
Fifth Semester			
PLUMBNG 50427755	Sanitary Drains 2	2	3.6-0.4
Sixth Semester			
PLUMBNG 50427756	Private On-Site Wastewater Treatment Systems (POWTS)	2	3.6-0.4
Seventh Semester			
PLUMBNG 50427757	Green Plumbing Applications	2	3.6-0.4
Eighth Semester			
PLUMBNG 50427758	Plumbing Advanced Topics/TSA	2	3.6-0.4

Effective 2025-2026
Program Number: 315431

Practical Nursing

A One Year Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
Pre-Program Courses			
NURSNA 30543300	Nursing Assistant	3	3.33-1.66
NURSPN 31543356	Growth and Development	2	4-0
FOUNHLTH 31501153	Body Structure & Function	3	6-0
ENGLISH 10801195	Written Communication	3	3-0
COMM 10801196	Oral/Interpersonal Communication	3	3-0
First Semester			
NURSPN 31543301	Nursing Fundamentals	2	4-0
NURSPN 31543302	Nursing Skills	3	0-6
NURSPN 31543303	Nursing Pharmacology	2	4-0
NURSPN 31543304	Nursing: Intro to Clinical Practice	2	0-0
Second Semester			
NURSPN 31543305	Nursing Health Alterations	3	6-0
NURSPN 31543306	Nursing Health Promotion	3	6-0
NURSPN 31543307	Nursing: Clinical Care Across the Lifespan	2	0-0
NURSPN 31543308	Nursing: Intro to Clinical Care Management	2	0-0

Effective 2025-2026
Program Number: 901065CERT

Project Management

A Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
Required Courses:			
BUSADM 10102135	Project Management Fundamentals	3	3-0
ADMINPRF 10106109	Business Spreadsheet Applications	3	1-4
COMPSOFT 10103186	MS (Microsoft) Project	2	0.5-3
Choose one of the following courses. Students are encouraged to meet with their advisor or faculty advisor prior to enrolling to determine which course option below meets their interests after certificate completion.			
BUSADM 10102131	Change Management	3	3-0
BUSADM 10102134	Introduction to Business	3	3-0

Effective 2025-2026
Program Number: 3062310

Quality Control Technology

A Less Than One Year Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
MECTEC 10606130	SolidWorks 1	1	1-0
MACHT 10606200	Interpreting Engineering Drawings	2	0-4
ENGLISH 10801195	Written Communication	3	3-0
MACHT 32420351	Elements of Basic Metrology	2	4-0
MACHT 32420711	Math for the Machine Trades	2	4-0
Second Semester			
MECTEC 10606161	Manufacturing Processes	2	1-2
QUALCTRL 31623110	Intro to Geometric Dimensioning and Tolerancing (GDT)	1	2-0
QUALCTRL 31623111	Applied Geometric Dimensioning and Tolerancing (GDT)	1	0-2
QUALCTRL 31623133	Inspection Planning	1	0-2
QUALCTRL 31623165	Quality Engineering Fundamentals	3	2-4
QUALCTRL 31623354	Advanced Metrology	3	2-4

Effective 2025-2026
Program Number: 908091CERT

Race and Ethnic Studies

A Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
Required Course			
SOC 20809252	Race and Ethnicity in the U.S.	3	3-0
Additional Requirement			
Complete nine credits from the listed courses			
ENGLISH 20801207	World Indigenous Literatures	3	3-0
ENGLISH 20801212	Ethnic Literature	3	3-0
ENGLISH 20801213	Indigenous American History	3	3-0
ENGLISH 20801214	African American Literature	3	3-0
ENGLISH 20801222	U.S. Latino Literature	3	3-0
HISTORY 20803214	Native American History	3	3-0
HISTORY 20803238	US Latino History	3	3-0
HISTORY 20803240	African American History	3	3-0
HISTORY 20803244	Asian American History	3	3-0
MUSIC 20805229	Blues to Hip-Hop: Black American Music	3	3-0
SOC 10809172	Introduction to Diversity Studies	3	3-0
SOCSCI 20809215	Education in a Pluralistic Society	3	3-0
SOCSCI 20809282	Introduction to Hmong American Studies	3	3-0
ANTHRO 20809283	Cultural Anthropology & Human Diversity	3	3-0
SOCSCI 20809908	Honors-Ethnic Studies (3cr)	3	0-0

Effective 2025-2026
Program Number: 105261

Radiography

An Associate in Applied Science Degree

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
Pre-Radiography Courses			
BIOLOGY 10806177	Gen Anatomy & Physiology	4	3-2
ENGLISH 10801195	Written Communication	3	3-0
MATH 10804107	College Mathematics	3	2-2
First Semester			
RADTEC 10526149	Radiographic Procedures 1	5	4-2
RADTEC 10526158	Introduction to Radiography	3	3-0
RADTEC 10526159	Radiographic Imaging	3	3-0
RADTEC 10526168	Radiography Clinical 1	2	0-0
Second Semester			
RADTEC 10526230	Advanced Radiographic Imaging	2	2-0
RADTEC 10526191	Radiographic Procedures 2	5	4-2
RADTEC 10526192	Radiography Clinical 2	3	0-0
Third Semester (Summer)			
RADTEC 10526193	Radiography Clinical 3	3	0-0
Fourth Semester			
RADTEC 10526194	Imaging Equipment Operation	3	3-0
RADTEC 10526195	Radiographic Image Analysis	2	2-0
RADTEC 10526231	Imaging Modalities	2	2-0
RADTEC 10526199	Radiography Clinical 4	3	0-0
COMM 10801196	Oral/Interpersonal Communication	3	3-0
PSYCH 10809199	Psychology Of Human Relations	3	3-0
Fifth Semester			
RADTEC 10526189	Radiographic Pathology	1	1-0
RADTEC 10526291	Radiography Clinical 5 Practice	3	0-0
RADTEC 10526197	Radiation Protection & Biology	3	3-0
SOC 10809197	Contemporary American Society	3	3-0
RADTEC 10526198	Radiography Clinical 6	2	0-0
Sixth Semester (Summer)			
RADTEC 10526174	ARRT Certification Seminar	2	2-0

Effective 2025-2026
Program Number: 901942CERT

Real Estate Sales

A Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
RLEST 10194182	Real Estate Law and Sales	4	4-0
RLEST 10194185	Real Estate Broker Management	4	4-0
Second Semester			
MKTG 10104114	Social Media Marketing	3	3-0
RLEST 10194195	Real Estate Internship	3	1-0

Madison Area Technical College

Effective 2025-2026
Program Number: 908061CERT

Renewable Energy

A Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
Required Courses (Specific)			
Completion of both of the listed courses is required.			
PHYSICS 20806291	Introduction to Renewable Energy/Renewable Energy Technology	3	3-0
PHYSICS 20806292	Solar Photovoltaic Technology/Solar Energy Technology	3	3-0
Required Courses (Choices)			
Completion of 3 credits from the listed courses is required.			
PHYSICS 20806287	Special Topics: Energy Storage	2	1.5-1
PHYSICS 20806290	Renewable Energy for International Development	3	3-0
PHYSICS 20806293	Solar Photovoltaic Installation Lab	1	0-2
PHYSICS 20806296	Advanced Solar Photovoltaic Technology	1	0-2
ECON 20809228	Environmental Economics	3	3-0
SOCSCI 20809269	Energy, Environment and Society	3	3-0
NATSCI 20806391	Internship 1 Science/Engr (1cr)	1	0.5-0
NATSCI 20806392	Internship 1 Science/Engr (2cr)	2	0.5-0
NATSCI 20806393	Internship 1 Science/Engr (3cr)	3	0.5-0
NATSCI 20806394	Internship 2 Science/Engr (1cr)	1	0.5-0
NATSCI 20806395	Internship 2 Science/Engr (2cr)	2	0.5-0
NATSCI 20806396	Internship 2 Science/Engr (3cr)	3	0.5-0
Honors courses and Independent Studies courses may also be available. Consult the Program Director for more information.			
NATSCI 20806807	Honors-Renewable Energy (2cr)	2	0-0
NATSCI 20806907	Honors-Renewable Energy (3cr)	3	0-0
NATSCI 20806297	Independent Study - Science (1 cr)	1	1-0
NATSCI 20806298	Independent Study - Science (2 cr)	2	2-0
NATSCI 20806299	Independent Study - Science (3 cr)	3	3-0

Additionally, some previously taken Renewable Energy courses may count towards the requirements. Those courses that qualify would automatically be picked up in the specific individual's Degree Progress (Academic Advising) Report.

Effective 2025-2026
Program Number: 105151

Respiratory Therapy

An Associate in Applied Science Degree

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
Pre-Program Courses			
The following courses should be taken during the petition process, prior to program acceptance.			
ENGLISH 10801195	Written Communication	3	3-0
First Semester			
RESPC 10515111	Respiratory Survey	3	3-0
RESPC 10515173	Respiratory Pharmacology	3	3-0
BIOLOGY 10806177	Gen Anatomy & Physiology	4	3-2
Second Semester			
BIOLOGY 10806197	Microbiology-University Medical	4	2-4
RESPC 10515171	Respiratory Therapeutics1	3	2-2
RESPC 10515172	Respiratory Therapeutics 2	3	2-2
RESPC 10515174	Respiratory/Cardiac Physiology	3	3-0
RESPC 10515176	Respiratory Disease	3	3-0
Summer Term			
RESPC 10515175	Respiratory Clinical 1	2	0-0
SPEECH 10801198	Speech	3	3-0
Third Semester			
RESPC 10515112	Respiratory Airway Management	2	1-2
RESPC 10515113	Respiratory Life Support	3	2-2
RESPC 10515178	Respiratory Clinical 2	3	0-0
RESPC 10515179	Respiratory Clinical 3	3	0-0
SOC 10809197	Contemporary Amer Society	3	3-0
Fourth Semester			
RESPC 10515180	Respiratory Neo/Peds Care	2	2-0
RESPC 10515181	Respiratory/Cardio Diagnostics	3	2-2
RESPC 10515182	Respiratory Clinical 4	3	0-0
RESPC 10515183	Respiratory Clinical 5	3	0-0
RESPC 10515184	Neonatal Pediatric Resuscitation (NRP)	1	1-0
PSYCH 10809199	Psychology Of Human Relations	3	3-0

Madison Area Technical College

Effective 2025-2026
Program Number: 101451

Small Business Entrepreneurship

An Associate in Applied Science Degree

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
ADMINPRF 10106100	Mindset for Success	3	3-0
ADMINPRF 10106164	Customer Contact Skills	2	2-0
ADMINPRF 10106168	Microsoft Office for Business Applications	3	1-4
SMLBUS 10145117	Introduction to Entrepreneurship	3	3-0
ENGLISH 10801195	Written Communication	3	3-0
MATH 10804123	Math with Business Applications	3	3-0
Second Semester			
ACCTG 10101106	Accounting Fundamentals	3	3-0
SMLBUS 10145125	Artificial Intelligence (AI) for Small Business Marketing	3	3-0
MKTG 10104104	Selling Principles	3	3-0
SMLBUS 10145105	Operations Management	3	3-0
SMLBUS 10145123	Leading Your Life with Emotional Intelligence	3	3-0
Third Semester			
SMLBUS 10145102	Small Business Development	3	3-0
SMLBUS 10145131	Mastering Mindfulness: The Power of Living in the Present	1	1-0
SMLBUS 10145132	Mastering Mindfulness: Pathway to Personal Development	1	1-0
SMLBUS 10145133	Mastering Mindfulness: Strength and Self-Reflection	1	1-0
SPEECH 10801198	Speech	3	3-0
PSYCH 10809199	Psychology Of Human Relations	3	3-0
Select one of the following courses:			
SMLBUS 10145108	Field Experience	2	1-0
SMLBUS 10145190	Small Business Etiquette and Professionalism	3	3-0
Fourth Semester			
BUSADM 10102143	Organizational Management	3	3-0
BUSADM 10102160	Business Law 1	3	3-0
HRMGT 10116145	Introduction to Human Resources	3	3-0
SMLBUS 10145120	Global Entrepreneurship (3 credits)	3	1-4
PHILOS 10809166	Introduction to Ethics: Theory and Applications	3	3-0

Effective 2025-2026
Program Number: 908021CERT

Spanish Proficiency

A Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
Language Requirement			
Completion of two courses in Spanish (at the Spanish 3 or higher level) is required. At least 3 credits must be enrolled in at Madison College.			
SPANISH 20802213	Spanish 3	4	3-2
SPANISH 20802214	Spanish 4	4	3-2
SPANISH 20802215	Spanish 5	3	3-0
SPANISH 20802218	Spanish 6	3	3-0
Practicum Requirement			
Completion of both practicum courses is required.			
HUMAN 20802261	Intercultural Experience Practicum 1	1	0-2
HUMAN 20802262	Intercultural Experience Practicum 2	1	0-2
Additional Course Requirement			
Completion of at least one of the listed courses is required.			
SOC 10809172	Introduction to Diversity Studies	3	3-0
ENGLISH 20801207	World Indigenous Literatures	3	3-0
ENGLISH 20801212	Ethnic Literature	3	3-0
ENGLISH 20801213	Native American Literature	3	3-0
ENGLISH 20801222	U.S. Latino Literature	3	3-0
JOURNAL 20801252	World Issues Journalism	3	3-0
HISTORY 20803204	Renaissance, Reformation, and Revolution	3	3-0
HISTORY 20803205	Europe and Modern World	3	3-0
HISTORY 20803216	Immigrants in U.S. History	3	3-0
HISTORY 20803225	World In 20th Century	3	3-0
HISTORY 20803233	Gender and Women's History in Cultural Representations	3	3-0
HISTORY 20803234	Gender and Women's Global History	3	3-0
HISTORY 20803238	US Latino History	3	3-0
MUSIC 20805207	World Music	3	3-0
ECON 20809214	International Economics	3	3-0
POLISCI 20809223	International Relations	3	3-0
SOC 20809252	Race and Ethnicity in the U.S.	3	3-0
SOCSCI 20809256	International Perspectives on Gender and Women	3	3-0
PHILOS 20809263	East/West World View	3	3-0
ANTHRO 20809283	Cultural Anthropology & Human Diversity	3	3-0
ANTHRO 20809285	Anthropology of Myth, Magic, and Religion	3	3-0
DRAMA 20810238	Cultural Diversity in Contemporary American Theater	3	3-0
FILM 20810254	History Of World Cinema	3	3-0
ARTHIST 20815210	Art History: Renaissance to Modern	3	3-0
	Honors courses may be available. See the certificate advisor for details.		
Oral Competency Assessment Requirement	*Completion of the World Language Oral Assessment with a minimum score of 6 within the last three years is required*		

Madison Area Technical College

Stem Cell Technologies

Effective 2025-2026

A Certificate

Program Number: 900073CERT

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
Required Courses			
BIOTECH 10007118	Introduction to Human Stem Cell Concepts	1	1-0
BIOTECH 10007119	Advanced Human Stem Cell Concepts	1	1-0
BIOTECH 10007123	Cell Culturing	3	0-6

Effective 2025-2026
Program Number: 311821

Supply Chain Assistant

A Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
BUSADM 10102134	Introduction to Business	3	3-0
BUSADM 10102143	Management Techniques	3	3-0
ADMINPRF 10106109	Business Spreadsheet Applications	3	1-4
LOGMGT 10182101	Supply Chain Fundamentals	3	3-0
MATH 10804144	Math of Finance	3	3-0
Second Semester			
BUSADM 10102114	Business Communication	3	3-0
BUSADM 10102133	Topics in Tactical Management	3	3-0
LOGMGT 10182104	Inventory Management	3	3-0
LOGMGT 10182122	Logistics Management	3	3-0
LOGMGT 10182136	Scheduling Fundamentals and Supply Chain Technologies	3	3-0

Madison Area Technical College

Effective 2025-2026
Program Number: 101821

Supply Chain Management

An Associate in Applied Science Degree

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
BUSADM 10102134	Introduction to Business	3	3-0
BUSADM 10102143	Management Techniques	3	3-0
ADMINPRF 10106109	Business Spreadsheet Applications	3	1-4
LOGMGT 10182101	Supply Chain Fundamentals	3	3-0
MATH 10804144	Math of Finance	3	3-0
Second Semester			
BUSADM 10102133	Quality Management	3	3-0
LOGMGT 10182104	Inventory Management	3	3-0
LOGMGT 10182122	Logistics Management	3	3-0
LOGMGT 10182136	Scheduling Fundamentals and Supply Chain Technologies	3	3-0
ENGLISH 10801195	Written Communication	3	3-0
Third Semester			
ACCTG 10101111	Accounting 1 - Principles	4	4-0
BUSADM 10102114	Business Communication	3	3-0
SMLBUS 10145105	Operations Management	3	3-0
LOGMGT 10182138	Purchasing	3	3-0
ECON 10809195	Economics	3	3-0
Fourth Semester			
ACCTG 10101118	Management Accounting	4	4-0
BUSADM 10102135	Project Management Fundamentals	3	3-0
COMM 10801196	Oral/Interpersonal Communication	3	3-0
PSYCH 10809199	Psychology Of Human Relations	3	3-0
Choose from one of the following courses:			
BUSADM 10102132	Strategic Leadership	3	3-0
BUSADM 10102104	Business Statistics	3	3-0
BUSADM 10102142	Business Management Internship	3	0-0

Effective 2025-2026
Program Number: 105121

Surgical Technology

An Associate in Applied Science Degree

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
Pre-Program			
FOUNHLTH 10501101	Medical Terminology	3	3-0
BIOLOGY 10806177	Gen Anatomy & Physiology	4	3-2
First Semester			
SURGT 10512125	Introduction to Surgical Technology	4	2-4
SURGT 10512126	Surgical Technology Fundamentals 1	4	2-4
SURGT 10512127	Exploring Surgical Issues	2	2-0
BIOLOGY 10806197	Microbiology-University Medical	4	2-4
Second Semester			
SURGT 10512128	Surgical Technology Fundamentals 2	4	2-4
SURGT 10512129	Surgical Pharmacology	2	2-0
SURGT 10512130	Surgical Skills Application	2	0-0
ENGLISH 10801195	Written Communication	3	3-0
Third Semester			
SURGT 10512131	Surgical Interventions 1	4	4-0
SURGT 10512132	Surgical Technology Clinical 1	3	0-0
SURGT 10512133	Surgical Technology Clinical 2	3	0-0
COMM 10801196	Oral/Interpersonal Communication	3	3-0
PSYCH 10809199	Psychology Of Human Relations	3	3-0
Fourth Semester			
SURGT 10512135	Surgical Technology Clinical 3	3	0-0
SURGT 10512136	Surgical Technology Clinical 4	3	0-0
SURGT 10512142	Surgical Interventions 2	4	4-0
SOC 10809197	Contemporary American Society	3	3-0

Effective 2025-2026
Program Number: 104995

Technical Studies-Journey Worker

An Associate in Applied Science Degree

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
Coursework Required for Degree			
Occupational Specific Courses (equivalent to 39 credits)			
The Occupational Specific Course area will be met with a Wisconsin Apprenticeship Completion Certificate issued by the Department of Workforce Development-Bureau of Apprenticeship Standards registered program which included a minimum of 3 years in length and include a minimum of 400 hours of prescribed apprentice paid-related instruction in the Wisconsin Technical College System.			
See the admissions section of this program page for more detail on determining active apprenticeship enrollment status and completion certificates, including how to submit the certificate.			
General Education (21 credits)			
General Education courses must meet the WTCS Associate of Applied Science Degree requirement for a minimum of 21 credits of General Education distributed across the following categories. (Students may choose to take LAT in lieu of courses to satisfy the individual requirements as identified on their degree progress report.)			
Communications (first course)			
ENGLISH 10801195	Written Communication	3	3-0
Communications (second course) - select one course			
COMM 10801196	Oral/Interpersonal Communication	3	3-0
SPEECH 10801198	Speech	3	3-0
ENGLISH 10801197	Technical Reporting	3	3-0
Social Science - select one course			
PHILOS 10809103	Think Critically & Creatively	3	3-0
POLISCI 10809122	Intro to Amer Government	3	3-0
PHILOS 10809166	Introduction to Ethics: Theory and Applications	3	3-0
SOC 10809172	Introduction to Diversity Studies	3	3-0
ECON 10809195	Economics	3	3-0
SOC 10809196	Introduction to Sociology	3	3-0
SOC 10809197	Contemporary American Society	3	3-0
Behavioral Science - select one course			
PSYCH 10809198	Introduction to Psychology	3	3-0
PSYCH 10809199	Psychology Of Human Relations	3	3-0
PSYCH 10809159	Abnormal Psychology	3	3-0
PSYCH 10809188	Developmental Psychology	3	3-0
Math or Science - select one course			

MATH 10804107	College Mathematics	3	2-2
MATH 10804113	College Technical Math 1A	3	3-0
MATH 10804115	College Technical Math 1	5	5-0
MATH 10804123	Math with Business Applications	3	3-0
MATH 10804134	Mathematical Reasoning	3	2-2
MATH 10804144	Math of Finance	3	3-0
BIOLOGY 10806105	Principles of Animal Biology	4	3-2
CHEM 10806134	General Chemistry	4	3-2
PHYSICS 10806154	General Physics 1	4	3-2
BIOLOGY 10806177	Gen Anatomy & Physiology	4	3-2
BIOLOGY 10806179	Advanced Anatomy & Physiology	4	3-2
CHEM 10806186	Intro to Biochemistry	4	3-2
BIOLOGY 10806197	Microbiology	4	2-4

Additional General Education Courses - select two (2) courses from the lists above (courses not already taken from the other requirement lists).

Effective 2025-2026
Program Number: 504512

Telecommunications Voice Data Video Installer Technician

Apprenticeship Completion

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
VDV 50451591	Voice Data Video Install Sem 1	2	3.39-0.56
Second Semester			
VDV 50451592	Voice Data Video Install Sem 2	2	3.39-0.56
Third Semester			
VDV 50451593	Voice Data Video Install Sem 3	2	3.39-0.56
Fourth Semester			
VDV 50451594	Voice Data Video Install Sem 4	2	3.39-0.56
Fifth Semester			
VDV 50451595	Voice Data Video Install Sem 5	2	3.39-0.56
Sixth Semester			
VDV 50451590	Voice Data Video Install Sem 6	2	3.39-0.56

Effective 2025-2026
Program Number: 504393

Tool & Die Apprentice

Apprenticeship Completion

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
MACHT 50420711	Mathematics for the Machine Trades	1	1.61-0.38
MACHT 50420715	Mechanical Hardware & Hand Tools for Machine Trades Apprentices	1	1.61-0.38
Second Semester			
MACHT 50420713	Precision Measurement for Machine Tool Trade Apprentices	1	1.61-0.38
MACHT 50420714	Engineering Drawings for Machine Tool Trades Apprentices	1	1.61-0.38
Third Semester			
MACHT 50420710	Safety for Machine Tool Trade Apprentices	0.25	0.33-0.16
MACHT 50420720	Cut-Off Machines for Machine Trades Apprentices	0.25	0.33-0.16
MACHT 50420721	Metallurgy & Materials for Machine Trades	1	1.61-0.38
MACHT 50420732	Machine Tool Apprenticeship Greening Competencies - SAGE Project	0.50	0.72-0.27
Fourth Semester			
MACHT 50420716	Turning Machines for Machine Trades Apprentices	0.50	0.72-0.27
MACHT 50420717	Milling Machines for Machine Trades Apprentices	0.50	0.5-0.27
MACHT 50420718	Drilling Machines for Machine Trades Apprentices	0.50	0.72-0.27
MACHT 50420719	Grinding Machines for Machine Trades Apprentices	0.50	0.72-0.27
Fifth Semester			
MACHT 50420725	Basic CAD/CAM for Machine Trades Apprentices	1	1.61-0.38
MACHT 50420726	Jig and Fixture Design for Machine Trades Apprentices	0.50	0.72-0.27
MACHT 50420727	Geometric Design and Tolerancing for Machine Trades Apprentices	0.50	0.72-0.27
Sixth Semester			
MACHT 50420724	CNC Programming and Planning for Machine Trades Apprentices	1	1.61-0.38
MACHT 50420733	CNC Operations for Machine Tool Trades Apprentices	1	1.61-0.38
Seventh Semester			
MACHT 50420728	Stamping Diemaking for Machine Tool Trade Apprentices	1	1.61-0.38
MACHT 50420729	Mold Making for Machine Tool Trade Apprentices	1	1.61-0.38
Eighth Semester			
MACHT 50420723	Electrical Discharge Machining f	0.50	0.72-0.27
MACHT 50420712	Communications for Apprentices	0.50	0.77-0.22

Complete 1 of the following to complete the Eighth Semester

MACHT 50420730	Stamping Design Applications for Machine Trades Apprentices	1	1.61-0.38
MACHT 50420731	Molding Die Design Applications for Machine Tool Trade Apprentices	1	1.61-0.38

Effective 2025-2026
Program Number: 310017

Tree Care Technician

A Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
COMM 10801196	Oral/Interpersonal Communication	3	3-0
URBNFOR 10001101	Introduction to Arboriculture	2	1-2
URBNFOR 10001102	Plant Health Care Applicator	2	2-0
URBNFOR 10001133	Equipment and Chainsaw Safety and Operation	3	1-4
URBNFOR 10001118	Landscape Plant Identification	2	1-2
URBNFOR 10001124	Fundamentals of Aerial Tree Work	3	1-4
Second Semester			
URBNFOR 10001113	Ornamental Plant Health Care for Arboriculture	3	2-2
URBNFOR 10001110	Tree Biology	2	1-2
URBNFOR 10001138	Landscape Management 1	3	2-2
URBNFOR 10001173	Urban Tree Maintenance	2	1-2
URBNFOR 10001128	Arboriculture Lab 1	2	0-4

Effective 2025-2026
Program Number: 312013

UX/UI Design

A One Year Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
GRDSGN 10201114	Introduction to Industry Applications	3	0-6
GRDSGN 10201163	UX Foundations	3	0-6
GRDSGN 10201166	UI Design	3	0-6
GRDSGN 10201168	Human Centered Design	2	2-0
GRDSGN 10201177	Web Design	3	0-6
Second Semester			
GRDSGN 10201132	Designing for Development	3	0-6
GRDSGN 10201158	Advanced Digital Design	2	0-4
GRDSGN 10201178	Advanced UX/UI Design	3	0-6
GRDSGN 10201173	Project Management for Digital Designers	2	1-2
GRDSGN 10201185	User Experience and Interaction Design (UX/ID) Capstone	2	0-4

Effective 2025-2026
Program Number: 208001-A

University Transfer - Pre-major: Arts and Humanities

An Associate in Arts Degree

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
60 credits minimum to complete the program by satisfying the all requirements as defined.			
English and Speech (9 credits)			
Six credits must be in composition - English 1 and one other composition course. Three credits must be in public speaking.			
(Students should consult with an advisor to determine the best choice for their second composition course.)			
Composition Courses			
ENGLISH 20801201	English 1	3	3-0
ENGLISH 20801202	English 2	3	3-0
JOURNAL 20801245	Introduction to Journalism	3	3-0
JOURNAL 20801251	Introduction to Mass Communication	4	4-0
JOURNAL 20801256	Science Communication	3	3-0
Public Speaking Courses			
SPEECH 10801198	Speech	3	3-0
JOURNAL 20801269	On-Air Performance	3	2-2
SPEECH 20810202	Theory & Practice of Argumentation and Debate	3	3-0
SPEECH 20810211	Oral Interpretation	3	3-0
Kinesiology/Health/Wellness (1 credit)			
Completion of one of the listed courses is required.			
Kinesiology Courses			
KINES 20807210	Conditioning/Weight Training	1	0-2
KINES 20807214	Pickleball	1	0-2
KINES 20807215	Walking & Running for Fitness	1	0-2
KINES 20807219	Introduction to Kinesiology	2	2-0
KINES 20807223	Beginning Volleyball	1	0-2
KINES 20807245	Social Dance	1	0-2
KINES 20807248	Ballet	1	0-2
KINES 20807250	Badminton	1	0-2
KINES 20807254	Beginning Yoga	1	0-2
KINES 20807255	Prev/Care Athletic Injuries	2	1-2
KINES 20807258	First Aid and CPR	2	2-0
KINES 20807264	Intermediate Yoga	1	0-2
KINES 20807265	Beginning Soccer	1	0-2
KINES 20807266	Wellness Today	3	2-2
KINES 20807267	Health & Fitness for Life	2	2-0
KINES 20807268	Blueprint for Healthy Living	2	1.5-1
KINES 20807269	Stress Management Foundations	1	0-2
KINES 20807272	Fall Team Sports	1	0-2
KINES 20807273	Spring Team Sports	1	0-2

KINES 20807274	Roll, Release & Recover	1	0-2
KINES 20807280	Movement Education & Skills Lab	1	0-2
Humanities/Fine Arts (12 credits)			
Completion of courses from three disciplines is required. Choose courses from the following disciplines: art, art history, drama, film, literature, music, philosophy, world languages, writing and communication, and interdisciplinary humanities. Remaining credits to fulfill the requirement can be selected from any Humanities and Fine Arts courses offered within the AA degree.			
Art Courses			
ART 20815201	Basic Design	3	0-6
ART 20815205	Drawing 1	3	0-6
ART 20815215	Drawing 2	3	0-6
ART 20815219	Life Drawing 1	3	0-6
ART 20815220	Life Drawing 2	3	0-6
ART 20815221	Life Drawing 3	3	0-6
ART 20815227	2D Studio Independent Study	3	0-6
ART 20815233	Digital Photography Independent Study	3	0-6
ART 20815235	Creative Photography	3	0-6
ART 20815239	Digital Photography	3	0-6
ART 20815241	Painting 1	3	0-6
ART 20815242	Painting 2	3	0-6
ART 20815253	Jewelry 1	3	0-6
ART 20815254	Jewelry 2	3	0-6
ART 20815290	Ceramics 1	3	0-6
ART 20815291	Ceramics 2	3	0-6
ART 20815293	Ceramics Independent Study	3	0-6
ART 20815294	Ceramics Sculpture 1	3	0-6
ART 20815295	Ceramics Sculpture 2	3	0-6
ART 20815296	Ceramics Firing Techniques/Alternative Methods	3	0-6
ART 20815299	Ceramics Firing Techniques 2	3	0-6
Art History Courses			
ARTHIST 20815200	Art History: Ancient to Medieval	3	3-0
ARTHIST 20815210	Art History: Renaissance to Modern	3	3-0
ARTHIST 20815211	Art History: Women In Art	3	3-0
ARTHIST 20815228	Art History: Global Arts	3	3-0
Drama Courses			
DRAMA 20810230	Intro To Theatre	3	3-0
DRAMA 20810235	Stagecraft 1	3	3-0
DRAMA 20810238	Cultural Diversity in Contemporary American Theater	3	3-0
DRAMA 20810246	Stage Technology Practicum	1	0-2
DRAMA 20810260	Drama Practicum (1 cr)	1	0-2
DRAMA 20810261	Drama Practicum (2cr)	2	0-4
DRAMA 20810262	Acting 1	3	3-0
DRAMA 20810263	Acting 2	3	3-0
DRAMA 20810270	Movement Theory & Training for Actors	1	0-2
Film Courses			
FILM 20810250	Introduction to Film	3	3-0
FILM 20810254	History Of World Cinema	3	3-0
Literature Courses			
ENGLISH 20801204	Introduction to Literature	3	3-0
ENGLISH 20801207	World Indigenous Literatures	3	3-0
ENGLISH 20801209	Literature and Science	3	3-0
ENGLISH 20801211	Queer Literature	3	3-0
ENGLISH 20801212	Ethnic Literature	3	3-0
ENGLISH 20801213	Native American Literature	3	3-0
ENGLISH 20801214	African American Literature	3	3-0
ENGLISH 20801221	Literature and Popular Culture	3	3-0
ENGLISH 20801222	U.S. Latino Literature	3	3-0
ENGLISH 20801226	Introduction to African Literature	3	3-0
ENGLISH 20801227	Children's Literature	3	3-0
ENGLISH 20801229	Contemporary Literature	3	3-0

ENGLISH 20801230	Classical Mythology	3	3-0
ENGLISH 20801250	Women In Literature	3	3-0
Music Courses			
MUSIC 20805202	Choir 1	1	0-2
MUSIC 20805203	Choir 2	1	0-2
MUSIC 20805205	Class Voice	1	0-2
MUSIC 20805207	World Music	3	3-0
MUSIC 20805211	Orchestra 1	1	0-2
MUSIC 20805212	Orchestra 2	1	0-2
MUSIC 20805216	Concert Band 1	1	0-2
MUSIC 20805217	Concert Band 2	1	0-2
MUSIC 20805219	Jazz Ensemble 1	1	0-2
MUSIC 20805220	Jazz Ensemble 2	1	0-2
MUSIC 20805221	Class Piano 1	1	0-2
MUSIC 20805222	Class Piano 2	1	0-2
MUSIC 20805227	Music Appreciation	3	3-0
MUSIC 20805229	Blues to Hip-Hop: Black American Music	3	3-0
MUSIC 20805260	Music Theory Fundamentals	3	3-0
MUSIC 20805278	Hist Pop/Rock Music	3	3-0
MUSIC 20805279	World Drumming Ensemble 1	1	0-2
MUSIC 20805280	World Drumming Ensemble 2	1	0-2
MUSIC 20805281	World Drumming Ensemble 3	1	0-2
MUSIC 20805282	World Drumming Ensemble 4	1	0-2
Philosophy Courses			
PHILOS 10809103	Think Critically & Creatively	3	3-0
PHILOS 10809166	Intro to Ethics: Theory & App	3	3-0
PHILOS 20809260	Intro Philosophy	3	3-0
PHILOS 20809261	Elementary Logic	4	4-0
PHILOS 20809262	Contemporary Moral Issues	3	3-0
PHILOS 20809263	East/West World View	3	3-0
PHILOS 20809264	Introduction to Logic and Critical Thinking	3	3-0
PHILOS 20809266	Ethics In Medicine	3	3-0
PHILOS 20809276	Business Ethics	3	3-0
World Languages Courses			
SPANISH 20802211	Spanish 1	4	3-2
SPANISH 20802212	Spanish 2	4	3-2
SPANISH 20802213	Spanish 3	4	3-2
SPANISH 20802214	Spanish 4	4	3-2
SPANISH 20802215	Spanish 5	3	3-0
SPANISH 20802218	Spanish 6	3	3-0
FRENCH 20802221	French 1	4	3-2
FRENCH 20802222	French 2	4	3-2
FRENCH 20802223	French 3	4	3-2
FRENCH 20802224	French 4	4	3-2
FRENCH 20802226	French 5	3	3-0
CHINESE 20802230	Intro to Mandarin Chinese 1	3	2-2
CHINESE 20802231	Intro to Mandarin Chinese 2	3	2-2
CHINESE 20802232	Mandarin Chinese 3	3	3-0
ARABIC 20802240	Intro to Modern Arabic 1	3	2-2
ARABIC 20802241	Intro to Modern Arabic 2	3	2-2
Writing and Communication Courses			
ENGLISH 10801195	Written Communication	3	3-0
COMM 10801196	Oral/Interpersonal Communication	3	3-0
ENGLISH 10801197	Technical Reporting	3	3-0
SPEECH 10801198	Speech	3	3-0
ENGLISH 20801202	English 2	3	3-0
ENGLISH 20801240	Creative Writing	3	3-0
ENGLISH 20801241	Creative Writing/Fiction	3	3-0
ENGLISH 20801243	Creative Writing/Poetry	3	3-0
ENGLISH 20801244	Creative Writing/Non Fiction	3	3-0

JOURNAL 20801245	Introduction to Journalism	3	3-0
ENGLISH 20801249	Film Writing	3	3-0
JOURNAL 20801251	Introduction to Mass Communication	4	4-0
JOURNAL 20801252	World Issues Journalism	3	3-0
JOURNAL 20801253	Photo/Video Storytelling	3	2-2
JOURNAL 20801256	Science Communication	3	3-0
JOURNAL 20801262	Social Media Writing	3	3-0
JOURNAL 20801269	On-Air Performance	3	2-2
JOURNAL 20801271	Journalism Practicum 1	1	0-2
JOURNAL 20801272	Journalism Practicum 2	1	0-2
JOURNAL 20801273	Journalism Practicum 3	2	0-4
JOURNAL 20801274	Journalism Practicum 4	2	0-4
SPEECH 20810202	Argumentation and Debate	3	3-0
COMM 20810205	Small Group & Interpersonal Communications	3	3-0
COMM 20810206	Difficult Conversations	3	3-0
SPEECH 20810211	Oral Interpretation	3	3-0
Interdisciplinary Humanit es Courses			
HUMAN 20801254	Media and Democracy	3	3-0
HUMAN 20802261	Intercultural Experience Practicum 1	1	0-2
HUMAN 20802262	Intercultural Experience Practicum 2	1	0-2
HUMAN 20802280	Global Studies Capstone	2	0-0
COMM 20810200	Introduction to Communication Studies	3	3-0
HUMAN 20810267	Leadership As An Art	3	3-0

Mathematics and Natural Science (10 credits)

Select one mathematics course at the level of Intermediate Algebra or higher. (Quantitative Reasoning is recommended.) Select one biological science course and one physical science course; one of the courses must include a laboratory. If lab is a stand-alone course, the associated lecture component is also required.

Mathematics Courses			
MATH 20804201	Intermediate Algebra	4	3-2
MATH 20804203	Intermediate Algebra Part 2	3	2-2
MATH 20804210	Math for Elementary Teachers	3	3-0
MATH 20804211	Quantitative Reasoning	3	2-2
MATH 20804212	College Algebra	3	2-2
MATH 20804213	Trigonometry	3	2-2
MATH 20804214	Math for Elementary Teachers 2	3	3-0
COMPSCI 20804215	Computer Science 1	3	2-2
COMPSCI 20804216	Computer Science 2	3	2-2
MATH 20804220	Finite Math	3	2-2
MATH 20804221	Calculus Methods for Business and Social Sciences I	5	5-0
MATH 20804229	Precalculus	5	5-0
MATH 20804231	Calculus and Analytic Geometry 1	5	5-0
MATH 20804232	Calculus and Analytic Geometry 2	5	5-0
MATH 20804233	Calculus 3	5	5-0
MATH 20804240	Basic Statistics	4	3-2
MATH 20804241	Introduction to Engineering Statistics	3	2-2
MATH 20804255	Techniques in Ordinary Differential Equations	3	1-4
MATH 20804256	Elementary Matrix and Linear Algebra	3	1-4
MATH 20804265	Introduction to Discrete Mathematics	3	2-2
COMPSCI 20804270	Data Structures and Algorithms	4	4-0
Biological Science Lab Courses			
BIOLOGY 10806105	Principles of Animal Biology	4	3-2
BIOLOGY 10806177	Gen Anatomy & Physiology	4	3-2
BIOLOGY 10806179	Advanced Anatomy & Physiology	4	3-2
BIOLOGY 20806203	Introductory Zoology	5	4-2
BIOLOGY 20806207	Anatomy and Physiology 1	4	3-2
BIOLOGY 20806208	Anatomy and Physiology 2	4	3-2
BIOLOGY 20806215	Botany	5	3-4
BIOLOGY 20806226	Introduction To Human Biology	5	4-2

BIOLOGY 20806238	Plants, Parasites and People Lab	1	0-2
BIOLOGY 20806271	Cellular and Molecular Biology	5	3-4
BIOLOGY 20806272	Organismal Biology	5	3-4
BIOLOGY 20806274	General Microbiology	5	3-4
BIOLOGY 20806276	Principles of Genetics	4	3-2
BIOLOGY 20806283	General Ecology Lab	1	0-2
BIOLOGY 20806286	Environmental Science	4	2-4
Biological Science Cours s without Lab			
BIOLOGY 20806204	Biological Greek and Latin Terminology	3	3-0
BIOLOGY 20806237	Plants, Parasites, and People	3	3-0
BIOLOGY 20806261	Human Nutrition	3	3-0
BIOLOGY 20806280	Environmental Issues	3	3-0
BIOLOGY 20806281	Biodiversity and Conservation Biology	3	3-0
BIOLOGY 20806282	General Ecology	3	3-0
Physical Science Lab Courses			
CHEM 10806134	General Chemistry	4	3-2
PHYSICS 10806139	Survey of Physics	3	1-4
CHEM 10806186	Intro to Biochemistry	4	3-2
CHEM 20806209	College Chemistry 1	5	3-4
CHEM 20806212	College Chemistry 2	5	3-4
PHYSICS 20806221	University Physics 1	5	3-4
PHYSICS 20806222	University Physics 2	5	3-4
PHYSICS 20806223	University Physics 1-Calculus-Based	5	2-6
PHYSICS 20806224	University Physics 2-Calculus Based	5	2-6
GENENG 20806234	Mechanics of Materials	4	3-2
PHYSGEO 20806236	Introduction to Geographic Information Systems and Science	4	3-2
PHYSICS 20806239	Modern Physics Lab	1	0-2
EARTHSCI 20806244	General Geology	4	3-2
EARTHSCI 20806247	Earth Science Lab	1	0-2
WEATHER 20806248	Weather and Climate Laboratory	1	0-2
EARTHSCI 20806249	Geologic Evolution of the Earth	4	3-2
EARTHSCI 20806251	Undergraduate Geology Field Experience	2	0-4
ASTRON 20806253	Astronomy: The Solar System	4	3-2
ASTRON 20806254	Astronomy: Stars & Galaxies	4	3-2
CHEM 20806259	Chemistry for Science and Engineering	5	4-2
CHEM 20806266	Organic Chemistry 1 Lab	2	0-4
CHEM 20806267	Organic Chemistry 2 Lab	2	0-4
PHYSICS 20806296	Advanced Solar Photovoltaic Technology	1	0-2
Physical Science Courses without Lab			
PHYSICS 20806220	Physics of Everyday Life	3	3-0
GENENG 20806232	Statics	3	2-2
GENENG 20806233	Dynamics	3	3-0
PHYSICS 20806235	Modern Physics	3	3-0
EARTHSCI 20806241	Earth Science	3	3-0
WEATHER 20806245	Weather And Climate	3	3-0
EARTHSCI 20806246	Survey of Oceanography	3	3-0
WEATHER 20806250	Climate and Climate Change	3	3-0
EARTHSCI 20806252	Natural Hazards	3	3-0
WEATHER 20806255	Aviation Meteorology	3	3-0
CHEM 20806256	Organic Chemistry 1 Lecture	4	4-0
CHEM 20806257	Organic Chemistry 2 Lecture	4	4-0
PHYSICS 20806291	Introduction to Renewable Energy	3	3-0
PHYSICS 20806292	Solar Photovoltaic Technology	3	3-0

Social Science (12 credits)

Completion of courses from at least three disciplines is required. Choose courses from the following disciplines: anthropology, economics, education, history, political science, psychology, sociology, and interdisciplinary social science.

Anthropology Courses			
ANTHRO 20809280	General Anthropology	3	3-0

ANTHRO 20809281	Archaeology & Prehistoric World	3	3-0
ANTHRO 20809283	Cultural Anthropology & Human Diversity	3	3-0
ANTHRO 20809285	Anthropology of Myth, Magic, and Religion	3	3-0
Economics Courses			
ECON 10809195	Economics	3	3-0
ECON 20809211	Macroeconomics	3	3-0
ECON 20809212	Microeconomics	3	3-0
ECON 20809214	International Economics	3	3-0
ECON 20809228	Environmental Economics	3	3-0
Education Courses			
EDFOUND 20809216	Introduction to Education and Teaching	3	3-0
EDFOUND 20809217	Introduction to Special Education	3	3-0
History Courses			
HISTORY 20803201	Twentieth-Century America	3	3-0
HISTORY 20803204	Early Modern European History	3	3-0
HISTORY 20803205	European History Since 1815	3	3-0
HISTORY 20803208	History from Pharaohs to Popes	3	3-0
HISTORY 20803211	Early US History	3	3-0
HISTORY 20803212	Modern US History	3	3-0
HISTORY 20803214	Indigenous American History	3	3-0
HISTORY 20803224	Early African History	3	3-0
HISTORY 20803225	20th-Century World History	3	3-0
HISTORY 20803233	Gender and Women's History in Cultural Representations	3	3-0
HISTORY 20803238	US Latino History	3	3-0
HISTORY 20803240	African American History	3	3-0
HISTORY 20803242	History Nazi Germany 1919-1945	3	3-0
HISTORY 20803243	Modern African History	3	3-0
HISTORY 20803244	Asian American History	3	3-0
Political Science Courses			
POLISCI 10809122	Intro to Amer Government	3	3-0
POLISCI 20809218	Law and Society	3	3-0
POLISCI 20809222	State and Local Government	3	3-0
POLISCI 20809223	International Relations	3	3-0
POLISCI 20809227	Political Theory	3	3-0
POLISCI 20809242	Public Policy	3	3-0
POLISCI 20809245	Gender and Politics	3	3-0
POLISCI 20809246	African Politics	3	3-0
Psychology Courses			
PSYCH 10809159	Abnormal Psychology	3	3-0
PSYCH 10809188	Developmental Psychology	3	3-0
PSYCH 10809198	Introduction to Psychology	3	3-0
PSYCH 10809199	Psychology Of Human Relations	3	3-0
PSYCH 20809201	Human Sexuality	3	3-0
PSYCH 20809210	Psychology of Men	3	3-0
PSYCH 20809225	Social Psychology	3	3-0
PSYCH 20809233	Developmental Psychology	3	3-0
PSYCH 20809237	Abnormal Psychology	3	3-0
PSYCH 20809239	Child Human Development	3	3-0
PSYCH 20809249	Educational Psychology	3	3-0
PSYCH 20809296	Cognitive Psychology	3	3-0
PSYCH 20809297	Sport and Performance Psychology	3	3-0
Sociology Courses			
SOC 10809172	Introduction to Diversity Studies	3	3-0
SOC 10809196	Introduction to Sociology	3	3-0
SOC 10809197	Contemporary American Society	3	3-0
SOC 20809204	Sociology of Relationships and Families	3	3-0
SOC 20809207	Criminology	3	3-0
SOC 20809209	Sociology of Mental Health	3	3-0
SOC 20809252	Race and Ethnicity in the U.S.	3	3-0
SOC 20809253	Sociology of Gender	3	3-0

SOC 20809255	Introduction to LGBTQ+ Studies	3	3-0
SOC 20809277	Couple Relationships	1	1-0
SOC 20809291	Technology and Society	3	3-0
SOC 20809295	Victimology	3	3-0
Interdisciplinary Social Sc	*ence Courses*		
SOCSCI 20809206	Introduction to Women's Studies	3	3-0
SOCSCI 20809215	Education in a Pluralistic Society	3	3-0
SOCSCI 20809230	Statistics for the Social Sciences	4	4-0
SOCSCI 20809257	Gender and Women's Studies-Study Abroad Experience	1	1-0
SOCSCI 20809269	Energy, Environment and Society	3	3-0
SOCSCI 20809282	Introduction to Hmong American Studies	3	3-0
SOCSCI 20809290	Introduction to African Studies	3	3-0
SOCSCI 20809294	Introduction to Data Analytics	3	3-0

Electives (16 credits)

Select any courses offered within the University Transfer program or from the list of additional electives below. Most Internships and Honors Project credits may also be applied (20-code courses only).

Consult with your advisor to determine which courses are best for your intended transfer program (major and transfer institution).

BIOTECH 10007124	Molecular Biology 1	3	0-6
BIOTECH 10007125	Research Methods in Molecular Biology	3	0-6
ACCTG 10101111	Accounting 1 - Principles	4	4-0
ACCTG 10101113	Accounting 2 - Principles	4	4-0
ACCTG 10101118	Management Accounting	4	4-0
ACCTG 10101125	Cost Management	4	4-0
ACCTG 10101244	Financial Accounting	4	4-0
BUSADM 10102104	Business Statistics	3	3-0
BUSADM 10102134	Introduction to Business	3	3-0
BUSADM 10102143	Management Techniques	3	3-0
MKTG 10104102	Marketing Principles	3	3-0
BUSADM 10102160	Business Law 1	3	3-0
FINANCE 10114130	Personal Finance	3	3-0
HRMGT 10116145	Introduction to Human Resources	3	3-0
GRDSGN 10201177	Web Design	3	0-6
GRDSGN 10201181	Introduction to Design Software	3	0-6
EARLYCHL 10307110	ECE: Social Studies, Art, and Music	3	2-2
EARLYCHL 10307112	ECE: STEM (Science, Technology, Engineering, and Mathematics)	3	1-0
EARLYCHL 10307148	ECE: Foundations of Early Childhood Education	3	3-0
EARLYCHL 10307179	ECE: Child Development	3	3-0
EARLYCHL 10307187	ECE: Children with Differing Abilities	3	3-0
MTLFAB 10457100	Metal Repair Techniques	2	0-4
INDMECH 10462106	Mechanisms 1 for Industry	1	0-2
INDMECH 10462323	Controls 1	2	0-4
FOUNHLTH 10501101	Medical Terminology	3	3-0
CRIMJUST 10504900	Introduction to Criminal Justice	3	3-0
AUTOTEC 10602100	Automotive Fundamentals	2	0-4
AUTOTEC 10602101	Automotive Service Procedures	3	0-6
GENENG 10605270	AC/DC Circuit Techniques and Principles	3	1-4
GENENG 10606156	Statics and Mechanics 2: Centroids, Inertia, and Friction	1	1-0
MECTEC 10606160	Fundamentals of Manufacturing/Engineering Materials	2	1-2
MECTEC 10606161	Manufacturing Processes	2	1-2
MECTEC 10606186	Engineering Technology Applications	3	0-6
GENENG 10606231	Introductory Engineering Graphics	3	1-4
GENENG 10606232	Reverse Engineering and SolidWorks Assemblies	1	0-2
EMTEC 10620100	Introduction to PLCs	1	0-2
GENENG 10662121	Circuit Modeling 1	3	1-4
GENENG 10662221	Circuit Modeling 2	4	2-4
GENENG 10662252	Introduction to Computer Engineering	3	1-4
MATH 10804114	College Technical Math 1B	2	2-0

MATH 10804115	College Technical Math 1	5	5-0
MATH 10804116	College Technical Math 2	4	4-0
MATH 20804200	Principles Of Geometry	3	1-4
MATH 20804202	Intermediate Algebra Part 1	3	2-2
COMPSCI 20804217	Introduction to Programming in Python	3	2-2
SOCSCI 20809213	Exploring Business Majors Seminar	1	0.5-1
BIOLOGY 20806219	Biology for Innovators	1	0-2
NATSCI 20806260	Professional Health Careers Seminar: Planning Your Future	1	0.5-1
NATSCI 20806264	STEM Seminar	1	1-0
PHYSICS 20806293	Solar Photovoltaic Installation Lab	1	0-2
GENENG 20806294	Engineering Seminar	1	0.5-1
GENENG 20806295	Introduction to Engineering	3	1-4
COLLSUCC 20890200	College Success	3	3-0
COLLSUCC 20890201	Study Skills	1	1-0
COLLSUCC 20890202	Career Development	1	1-0

Ethnic Studies (One course)
Course may also count toward Humanities/Fine Arts, Social Science, or Electives.

ENGLISH 20801207	World Indigenous Literatures	3	3-0
ENGLISH 20801212	Ethnic Literature	3	3-0
ENGLISH 20801213	Native American Literature	3	3-0
ENGLISH 20801214	African American Literature	3	3-0
ENGLISH 20801222	U.S. Latino Literature	3	3-0
HISTORY 20803214	Indigenous American History	3	3-0
HISTORY 20803238	US Latino History	3	3-0
HISTORY 20803240	African American History	3	3-0
HISTORY 20803244	Asian American History	3	3-0
MUSIC 20805229	Blues to Hip-Hop: Black American Music	3	3-0
SOCSCI 20809215	Education in a Pluralistic Society	3	3-0
SOC 20809252	Race and Ethnicity in the U.S.	3	3-0
SOCSCI 20809282	Introduction to Hmong American Studies	3	3-0
ANTHRO 20809283	Cultural Anthropology & Human Diversity	3	3-0
SOC 10809172	Introduction to Diversity Studies	3	3-0

World Languages (One course)
May be met with one year in high school with a grade of "C" or better OR one semester in college.
College course may also count toward Humanities/Fine Arts or Electives.
If requirement was satisfied with high school courses, email: enrollmentservices@madisoncollege.edu.
See World Languages Courses under the Humanities and Fine Arts Requirement above.

Effective 2025-2026
Program Number: 208001-EB

University Transfer - Pre-major: Economics and Business

An Associate in Arts Degree

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
60 credits minimum to complete the program by satisfying the all requirements as defined.			
English and Speech (9 credits)			
Six credits must be in composition - English 1 and one other composition course. Three credits must be in public speaking.			
(Students should consult with an advisor to determine the best choice for their second composition course.)			
Composition Courses			
ENGLISH 20801201	English 1	3	3-0
ENGLISH 20801202	English 2	3	3-0
JOURNAL 20801245	Introduction to Journalism	3	3-0
JOURNAL 20801251	Introduction to Mass Communication	4	4-0
JOURNAL 20801256	Science Communication	3	3-0
Public Speaking Courses			
SPEECH 10801198	Speech	3	3-0
JOURNAL 20801269	On-Air Performance	3	2-2
SPEECH 20810202	Theory & Practice of Argumentation and Debate	3	3-0
SPEECH 20810211	Oral Interpretation	3	3-0
Kinesiology/Health/Wellness (1 credit)			
Completion of one of the listed courses is required.			
Kinesiology Courses			
KINES 20807210	Conditioning/Weight Training	1	0-2
KINES 20807214	Pickleball	1	0-2
KINES 20807215	Walking & Running for Fitness	1	0-2
KINES 20807219	Introduction to Kinesiology	2	2-0
KINES 20807223	Beginning Volleyball	1	0-2
KINES 20807245	Social Dance	1	0-2
KINES 20807248	Ballet	1	0-2
KINES 20807250	Badminton	1	0-2
KINES 20807254	Beginning Yoga	1	0-2
KINES 20807255	Prev/Care Athletic Injuries	2	1-2
KINES 20807258	First Aid and CPR	2	2-0
KINES 20807264	Intermediate Yoga	1	0-2
KINES 20807265	Beginning Soccer	1	0-2
KINES 20807266	Wellness Today	3	2-2
KINES 20807267	Health & Fitness for Life	2	2-0
KINES 20807268	Blueprint for Healthy Living	2	1.5-1
KINES 20807269	Stress Management Foundations	1	0-2
KINES 20807272	Fall Team Sports	1	0-2
KINES 20807273	Spring Team Sports	1	0-2

KINES 20807274	Roll, Release & Recover	1	0-2
KINES 20807280	Movement Education & Skills Lab	1	0-2
Humanities/Fine Arts (12 credits)			
Completion of courses from three disciplines is required. Choose courses from the following disciplines: art, art history, drama, film, literature, music, philosophy, world languages, writing and communication, and interdisciplinary humanities. Remaining credits to fulfill the requirement can be selected from any Humanities and Fine Arts courses offered within the AA degree.			
Art Courses			
ART 20815201	Basic Design	3	0-6
ART 20815205	Drawing 1	3	0-6
ART 20815219	Life Drawing 1	3	0-6
ART 20815220	Life Drawing 2	3	0-6
ART 20815221	Life Drawing 3	3	0-6
ART 20815227	2D Studio Independent Study	3	0-6
ART 20815233	Digital Photography Independent Study	3	0-6
ART 20815235	Creative Photography	3	0-6
ART 20815239	Digital Photography	3	0-6
ART 20815241	Painting 1	3	0-6
ART 20815242	Painting 2	3	0-6
ART 20815253	Jewelry 1	3	0-6
ART 20815254	Jewelry 2	3	0-6
ART 20815290	Ceramics 1	3	0-6
ART 20815291	Ceramics 2	3	0-6
ART 20815293	Ceramics Independent Study	3	0-6
ART 20815294	Ceramics Sculpture 1	3	0-6
ART 20815295	Ceramics Sculpture 2	3	0-6
ART 20815296	Ceramics Firing Techniques/Alternative Methods	3	0-6
ART 20815299	Ceramics Firing Techniques 2	3	0-6
Art History Courses			
ARTHIST 20815200	Art History: Ancient to Medieval	3	3-0
ARTHIST 20815210	Art History: Renaissance to Modern	3	3-0
ARTHIST 20815211	Art History: Women In Art	3	3-0
ARTHIST 20815228	Art History: Global Arts	3	3-0
Drama Courses			
DRAMA 20810230	Intro To Theatre	3	3-0
DRAMA 20810235	Stagecraft 1	3	3-0
DRAMA 20810238	Cultural Diversity in Contemporary American Theater	3	3-0
DRAMA 20810246	Stage Technology Practicum	1	0-2
DRAMA 20810260	Drama Practicum (1cr)	1	0-2
DRAMA 20810261	Drama Practicum (2cr)	2	0-4
DRAMA 20810262	Acting 1	3	3-0
DRAMA 20810263	Acting 2	3	3-0
DRAMA 20810270	Movement Theory & Training for Actors	1	0-2
Film Courses			
FILM 20810250	Introduction to Film	3	3-0
FILM 20810254	History Of World Cinema	3	3-0
Literature Courses			
ENGLISH 20801204	Introduction to Literature	3	3-0
ENGLISH 20801207	World Indigenous Literatures	3	3-0
ENGLISH 20801209	Literature and Science	3	3-0
ENGLISH 20801211	Queer Literature	3	3-0
ENGLISH 20801212	Ethnic Literature	3	3-0
ENGLISH 20801213	Native American Literature	3	3-0
ENGLISH 20801214	African American Literature	3	3-0
ENGLISH 20801221	Literature and Popular Culture	3	3-0
ENGLISH 20801222	U.S. Latino Literature	3	3-0
ENGLISH 20801226	Introduction to African Literature	3	3-0
ENGLISH 20801227	Children's Literature	3	3-0
ENGLISH 20801229	Contemporary Literature	3	3-0
ENGLISH 20801230	Classical Mythology	3	3-0

ENGLISH 20801250	Women In Literature	3	3-0
Music Courses			
MUSIC 20805202	Choir 1	1	0-2
MUSIC 20805203	Choir 2	1	0-2
MUSIC 20805205	Class Voice	1	0-2
MUSIC 20805207	World Music	3	3-0
MUSIC 20805211	Orchestra 1	1	0-2
MUSIC 20805212	Orchestra 2	1	0-2
MUSIC 20805216	Concert Band 1	1	0-2
MUSIC 20805217	Concert Band 2	1	0-2
MUSIC 20805219	Jazz Ensemble 1	1	0-2
MUSIC 20805220	Jazz Ensemble 2	1	0-2
MUSIC 20805221	Class Piano 1	1	0-2
MUSIC 20805227	Music Appreciation	3	3-0
MUSIC 20805229	Blues to Hip-Hop: Black American Music	3	3-0
MUSIC 20805260	Music Theory Fundamentals	3	3-0
MUSIC 20805278	Hist Pop/Rock Music	3	3-0
MUSIC 20805279	World Drumming Ensemble 1	1	0-2
MUSIC 20805280	World Drumming Ensemble 2	1	0-2
MUSIC 20805281	World Drumming Ensemble 3	1	0-2
MUSIC 20805282	World Drumming Ensemble 4	1	0-2
Philosophy Courses			
PHILOS 10809103	Think Critically & Creatively	3	3-0
PHILOS 10809166	Intro to Ethics: Theory & App	3	3-0
PHILOS 20809260	Intro Philosophy	3	3-0
PHILOS 20809261	Elementary Logic	4	4-0
PHILOS 20809262	Contemporary Moral Issues	3	3-0
PHILOS 20809263	East/West World View	3	3-0
PHILOS 20809264	Introduction to Logic and Critical Thinking	3	3-0
PHILOS 20809266	Ethics In Medicine	3	3-0
PHILOS 20809276	Business Ethics	3	3-0
World Language Courses			
SPANISH 20802211	Spanish 1	4	3-2
SPANISH 20802212	Spanish 2	4	3-2
SPANISH 20802213	Spanish 3	4	3-2
SPANISH 20802214	Spanish 4	4	3-2
SPANISH 20802215	Spanish 5	3	3-0
SPANISH 20802218	Spanish 6	3	3-0
FRENCH 20802221	French 1	4	3-2
FRENCH 20802222	French 2	4	3-2
FRENCH 20802223	French 3	4	3-2
FRENCH 20802224	French 4	4	3-2
FRENCH 20802226	French 5	3	3-0
CHINESE 20802230	Intro to Mandarin Chinese 1	3	2-2
CHINESE 20802231	Intro to Mandarin Chinese 2	3	2-2
CHINESE 20802232	Mandarin Chinese 3	3	3-0
ARABIC 20802240	Intro to Modern Arabic 1	3	2-2
ARABIC 20802241	Intro to Modern Arabic 2	3	2-2
Writing and Communication Courses			
ENGLISH 10801195	Written Communication	3	3-0
COMM 10801196	Oral/Interpersonal Communication	3	3-0
ENGLISH 10801197	Technical Reporting	3	3-0
SPEECH 10801198	Speech	3	3-0
ENGLISH 20801202	English 2	3	3-0
ENGLISH 20801240	Creative Writing	3	3-0
ENGLISH 20801241	Creative Writing/Fiction	3	3-0
ENGLISH 20801243	Creative Writing/Poetry	3	3-0
ENGLISH 20801244	Creative Writing/Non Fiction	3	3-0
JOURNAL 20801245	Introduction to Journalism	3	3-0
ENGLISH 20801249	Film Writing	3	3-0

JOURNAL 20801251	Introduction to Mass Communication	4	4-0
JOURNAL 20801252	World Issues Journalism	3	3-0
JOURNAL 20801253	Photo/Video Storytelling	3	2-2
JOURNAL 20801256	Science Communication	3	3-0
JOURNAL 20801262	Social Media Writing	3	3-0
JOURNAL 20801269	On-Air Performance	3	2-2
JOURNAL 20801271	Journalism Practicum 1	1	0-2
JOURNAL 20801272	Journalism Practicum 2	1	0-2
JOURNAL 20801273	Journalism Practicum 3	2	0-4
JOURNAL 20801274	Journalism Practicum 4	2	0-4
COMM 20810200	Introduction to Communication Studies	3	3-0
SPEECH 20810202	Argumentation and Debate	3	3-0
COMM 20810205	Small Group & Interpersonal Communications	3	3-0
COMM 20810206	Difficult Conversations	3	3-0
SPEECH 20810211	Oral Interpretation	3	3-0
Interdisciplinary Humanit es Courses			
HUMAN 20801254	Media and Democracy	3	3-0
HUMAN 20802261	Intercultural Experience Practicum 1	1	0-2
HUMAN 20802262	Intercultural Experience Practicum 2	1	0-2
HUMAN 20802280	Global Studies Capstone	2	0-0
HUMAN 20810267	Leadership As An Art	3	3-0

Mathematics and Natural Science (10 credits)

Select one mathematics course at the level of Intermediate Algebra or higher. Select one biological science course and one physical science course; one of the courses must include a laboratory. If lab is a stand-alone course, the associated lecture component is also required.

Recommended Mathematics Courses			
MATH 20804220	Finite Math	3	2-2
MATH 20804221	Calculus Methods for Business and Social Sciences I	5	5-0
MATH 20804231	Calculus and Analytic Geometry 1	5	5-0
Additional Mathematics Courses			
MATH 20804201	Intermediate Algebra	4	3-2
MATH 20804203	Intermediate Algebra Part 2	3	2-2
MATH 20804212	College Algebra	3	2-2
MATH 20804213	Trigonometry	3	2-2
MATH 20804229	Precalculus	5	5-0
MATH 20804232	Calculus and Analytic Geometry 2	5	5-0
MATH 20804233	Calculus 3	5	5-0
MATH 20804240	Basic Statistics	4	3-2
MATH 20804255	Techniques in Ordinary Differential Equations	3	1-4
MATH 20804256	Elementary Matrix and Linear Algebra	3	1-4
MATH 20804265	Introduction to Discrete Mathematics	3	2-2
COMPSCI 20804270	Data Structures and Algorithms	4	4-0
Biological Science Lab Courses			
BIOLOGY 10806105	Principles of Animal Biology	4	3-2
BIOLOGY 10806177	Gen Anatomy & Physiology	4	3-2
BIOLOGY 10806179	Advanced Anatomy & Physiology	4	3-2
BIOLOGY 20806203	Introductory Zoology	5	4-2
BIOLOGY 20806207	Anatomy and Physiology 1	4	3-2
BIOLOGY 20806208	Anatomy and Physiology 2	4	3-2
BIOLOGY 20806215	Botany	5	3-4
BIOLOGY 20806226	Introduction To Human Biology	5	4-2
BIOLOGY 20806238	Plants, Parasites and People Lab	1	0-2
BIOLOGY 20806271	Cellular and Molecular Biology	5	3-4
BIOLOGY 20806272	Organismal Biology	5	3-4
BIOLOGY 20806274	General Microbiology	5	3-4
BIOLOGY 20806276	Principles of Genetics	4	3-2
BIOLOGY 20806283	General Ecology Lab	1	0-2
BIOLOGY 20806286	Environmental Science	4	2-4
Biological Science Courses without Lab			

BIOLOGY 20806204	Biological Greek and Latin Terminology	3	3-0
BIOLOGY 20806237	Plants, Parasites, and People	3	3-0
BIOLOGY 20806261	Human Nutrition	3	3-0
BIOLOGY 20806280	Environmental Issues	3	3-0
BIOLOGY 20806281	Biodiversity and Conservation Biology	3	3-0
BIOLOGY 20806282	General Ecology	3	3-0
Physical Science Lab Co rses			
CHEM 10806134	General Chemistry	4	3-2
PHYSICS 10806139	Survey of Physics	3	1-4
CHEM 10806186	Intro to Biochemistry	4	3-2
CHEM 20806209	College Chemistry 1	5	3-4
CHEM 20806212	College Chemistry 2	5	3-4
PHYSICS 20806221	University Physics 1	5	3-4
PHYSICS 20806222	University Physics 2	5	3-4
PHYSICS 20806223	University Physics 1-Calculus-Based	5	2-6
PHYSICS 20806224	University Physics 2-Calculus Based	5	2-6
GENENG 20806234	Mechanics of Materials	4	3-2
PHYSGEO 20806236	Introduction to Geographic Information Systems and Science	4	3-2
PHYSICS 20806239	Modern Physics Lab	1	0-2
EARTHSCI 20806244	General Geology	4	3-2
EARTHSCI 20806247	Earth Science Lab	1	0-2
WEATHER 20806248	Weather and Climate Laboratory	1	0-2
EARTHSCI 20806249	Geologic Evolution of the Earth	4	3-2
EARTHSCI 20806251	Undergraduate Geology Field Experience	2	0-4
ASTRON 20806253	Astronomy: The Solar System	4	3-2
ASTRON 20806254	Astronomy: Stars & Galaxies	4	3-2
CHEM 20806259	Chemistry for Science and Engineering	5	4-2
CHEM 20806266	Organic Chemistry 1 Lab	2	0-4
CHEM 20806267	Organic Chemistry 2 Lab	2	0-4
PHYSICS 20806296	Advanced Solar Photovoltaic Technology	1	0-2
Physical Science Courses without Lab			
PHYSICS 20806220	Physics of Everyday Life	3	3-0
GENENG 20806232	Statics	3	2-2
GENENG 20806233	Dynamics	3	3-0
PHYSICS 20806235	Modern Physics	3	3-0
EARTHSCI 20806241	Earth Science	3	3-0
WEATHER 20806245	Weather And Climate	3	3-0
EARTHSCI 20806246	Survey of Oceanography	3	3-0
WEATHER 20806250	Climate and Climate Change	3	3-0
EARTHSCI 20806252	Natural Hazards	3	3-0
WEATHER 20806255	Aviation Meteorology	3	3-0
CHEM 20806256	Organic Chemistry 1 Lecture	4	4-0
CHEM 20806257	Organic Chemistry 2 Lecture	4	4-0
PHYSICS 20806291	Introduction to Renewable Energy	3	3-0
PHYSICS 20806292	Solar Photovoltaic Technology	3	3-0

Social Science (12 credits)

Required Social Science Courses			
ECON 20809211	Macroeconomics	3	3-0
ECON 20809212	Microeconomics	3	3-0
Completion of six additional credits from two additional disciplines is required. Choose courses from the following disciplines: anthropology, education, history, political science, psychology, sociology, and interdisciplinary social science. (After satisfying the required number of disciplines, if there are any remaining credits needed, they can be selected from any Social Science courses offered within the AA degree, including economics.)			
Anthropology Courses			
ANTHRO 20809280	General Anthropology	3	3-0
ANTHRO 20809281	Archaeology & Prehistoric World	3	3-0
ANTHRO 20809283	Cultural Anthropology & Human Diversity	3	3-0
ANTHRO 20809285	Anthropology of Myth, Magic, and Religion	3	3-0

Education Courses			
EDFOUND 20809216	Introduction to Education and Teaching	3	3-0
EDFOUND 20809217	Introduction to Special Education	3	3-0
History Courses			
HISTORY 20803201	Twentieth-Century America	3	3-0
HISTORY 20803204	Early Modern European History	3	3-0
HISTORY 20803205	European History Since 1815	3	3-0
HISTORY 20803208	History from Pharaohs to Popes	3	3-0
HISTORY 20803211	Early US History	3	3-0
HISTORY 20803212	Modern US History	3	3-0
HISTORY 20803214	Indigenous American History	3	3-0
HISTORY 20803224	Early African History	3	3-0
HISTORY 20803225	20th-Century World History	3	3-0
HISTORY 20803233	Gender and Women's History in Cultural Representations	3	3-0
HISTORY 20803238	US Latino History	3	3-0
HISTORY 20803240	African American History	3	3-0
HISTORY 20803242	History Nazi Germany 1919-1945	3	3-0
HISTORY 20803243	Modern African History	3	3-0
HISTORY 20803244	Asian American History	3	3-0
Political Science Courses			
POLISCI 10809122	Intro to Amer Government	3	3-0
POLISCI 20809218	Law and Society	3	3-0
POLISCI 20809222	State and Local Government	3	3-0
POLISCI 20809223	International Relations	3	3-0
POLISCI 20809227	Political Theory	3	3-0
POLISCI 20809242	Public Policy	3	3-0
POLISCI 20809245	Gender and Politics	3	3-0
POLISCI 20809246	African Politics	3	3-0
Psychology Courses			
PSYCH 10809159	Abnormal Psychology	3	3-0
PSYCH 10809188	Developmental Psychology	3	3-0
PSYCH 10809198	Introduction to Psychology	3	3-0
PSYCH 10809199	Psychology Of Human Relations	3	3-0
PSYCH 20809201	Human Sexuality	3	3-0
PSYCH 20809210	Psychology of Men	3	3-0
PSYCH 20809225	Social Psychology	3	3-0
PSYCH 20809233	Developmental Psychology	3	3-0
PSYCH 20809237	Abnormal Psychology	3	3-0
PSYCH 20809239	Child Human Development	3	3-0
PSYCH 20809249	Educational Psychology	3	3-0
PSYCH 20809296	Cognitive Psychology	3	3-0
PSYCH 20809297	Sport and Performance Psychology	3	3-0
Sociology Courses			
SOC 10809172	Introduction to Diversity Studies	3	3-0
SOC 10809196	Introduction to Sociology	3	3-0
SOC 10809197	Contemporary American Society	3	3-0
SOC 20809204	Sociology of Relationships and Families	3	3-0
SOC 20809207	Criminology	3	3-0
SOC 20809209	Sociology of Mental Health	3	3-0
SOC 20809252	Race and Ethnicity in the U.S.	3	3-0
SOC 20809253	Sociology of Gender	3	3-0
SOC 20809255	Introduction to LGBTQ+ Studies	3	3-0
SOC 20809277	Couple Relationships	1	1-0
SOC 20809291	Technology and Society	3	3-0
SOC 20809295	Victimology	3	3-0
Interdisciplinary Social Science Courses			
SOCSCI 20809206	Introduction to Women's Studies	3	3-0
SOCSCI 20809215	Education in a Pluralistic Society	3	3-0
SOCSCI 20809230	Statistics for the Social Sciences	4	4-0
SOCSCI 20809257	Gender and Women's Studies-Study Abroad Experience	1	1-0

SOCSCI 20809269	Energy, Environment and Society	3	3-0
SOCSCI 20809282	Introduction to Hmong American Studies	3	3-0
SOCSCI 20809290	Introduction to African Studies	3	3-0
SOCSCI 20809294	Introduction to Data Analytics	3	3-0

Electives (16 credits)

Select any courses offered within the University Transfer program or from the list of additional electives below. Most Internships and Honors Project credits may also be applied (20-code courses only).

Consult with your advisor to determine which courses are best for your intended transfer program (major and transfer institution). Recommended electives are listed first in the list below.

ECON 20809214	International Economics	3	3-0
ECON 20809228	Environmental Economics	3	3-0
BIOTECH 10007124	Molecular Biology 1	3	0-6
BIOTECH 10007125	Research Methods in Molecular Biology	3	0-6
ACCTG 10101111	Accounting 1 - Principles	4	4-0
ACCTG 10101113	Accounting 2 - Principles	4	4-0
ACCTG 10101118	Management Accounting	4	4-0
ACCTG 10101125	Cost Management	4	4-0
ACCTG 10101244	Financial Accounting	4	4-0
BUSADM 10102104	Business Statistics	3	3-0
BUSADM 10102134	Introduction to Business	3	3-0
BUSADM 10102143	Management Techniques	3	3-0
BUSADM 10102160	Business Law 1	3	3-0
MKTG 10104102	Marketing Principles	3	3-0
FINANCE 10114130	Personal Finance	3	3-0
HRMGT 10116145	Introduction to Human Resources	3	3-0
GRDSGN 10201177	Web Design	3	0-6
GRDSGN 10201181	Introduction to Design Software	3	0-6
EARLYCHL 10307110	ECE: Social Studies, Art, and Music	3	2-2
EARLYCHL 10307112	ECE: STEM (Science, Technology, Engineering, and Mathematics)	3	1-0
EARLYCHL 10307148	ECE: Foundations of Early Childhood Education	3	3-0
EARLYCHL 10307179	ECE: Child Development	3	3-0
EARLYCHL 10307187	ECE: Children with Differing Abilities	3	3-0
MTLFAB 10457100	Metal Repair Techniques	2	0-4
INDMECH 10462106	Mechanisms 1 for Industry	1	0-2
INDMECH 10462323	Controls 1	2	0-4
FOUNHLTH 10501101	Medical Terminology	3	3-0
CRIMJUST 10504900	Introduction to Criminal Justice	3	3-0
AUTOTEC 10602100	Automotive Fundamentals	2	0-4
AUTOTEC 10602101	Automotive Service Procedures	3	0-6
GENENG 10605270	AC/DC Circuit Techniques and Principles	3	1-4
GENENG 10606156	Statics and Mechanics 2: Centroids, Inertia, and Friction	1	1-0
MECTEC 10606160	Fundamentals of Manufacturing/Engineering Materials	2	1-2
MECTEC 10606161	Manufacturing Processes	2	1-2
MECTEC 10606186	Engineering Technology Applications	3	0-6
GENENG 10606231	Introductory Engineering Graphics	3	1-4
GENENG 10606232	Reverse Engineering and Solidworks Assemblies	1	0-2
EMTEC 10620100	Introduction to PLCs	1	0-2
GENENG 10662121	Circuit Modeling 1	3	1-4
GENENG 10662221	Circuit Modeling 2	4	2-4
GENENG 10662252	Introduction to Computer Engineering	3	1-4
MATH 10804114	College Technical Math 1B	2	2-0
MATH 10804115	College Technical Math 1	5	5-0
MATH 10804116	College Technical Math 2	4	4-0
PSYCH 10809159	Abnormal Psychology	3	3-0
PSYCH 10809188	Developmental Psychology	3	3-0
ECON 10809195	Economics	3	3-0
PSYCH 10809199	Psychology Of Human Relations	3	3-0
MATH 20804200	Principles Of Geometry	3	1-4

MATH 20804202	Intermediate Algebra Part 1	1	2-2
MATH 20804210	Math for Elementary Teachers	3	3-0
MATH 20804211	Quantitative Reasoning	3	2-2
MATH 20804214	Math for Elementary Teachers 2	3	3-0
COMPSCI 20804215	Computer Science 1	3	2-2
COMPSCI 20804216	Computer Science 2	3	2-2
MATH 20804241	Introduction to Engineering Statistics	3	2-2
BIOLOGY 20806219	Biology for Innovators	1	0-2
NATSCI 20806260	Professional Health Careers Seminar: Planning Your Future	1	0.5-1
NATSCI 20806264	STEM Seminar	1	1-0
PHYSICS 20806293	Solar Photovoltaic Installation Lab	1	0-2
GENENG 20806294	Engineering Seminar	1	0.5-1
GENENG 20806295	Introduction to Engineering	3	1-4
PSYCH 20809201	Human Sexuality	3	3-0
PSYCH 20809210	Psychology of Men	3	3-0
SOCSCI 20809213	Exploring Business Majors Seminar	1	0.5-1
ECON 20809214	International Economics	3	3-0
PSYCH 20809225	Social Psychology	3	3-0
ECON 20809228	Environmental Economics	3	3-0
PSYCH 20809233	Developmental Psychology	3	3-0
PSYCH 20809237	Abnormal Psychology	3	3-0
PSYCH 20809239	Child Human Development	3	3-0
PSYCH 20809249	Educational Psychology	3	3-0
SOCSCI 20809257	Gender and Women's Studies-Study Abroad Experience	1	1-0
SOCSCI 20809269	Energy And Society	3	3-0
PSYCH 20809296	Cognitive Psychology	3	3-0
PSYCH 20809297	Sport and Performance Psychology	3	3-0
COLLSUCC 20890200	College Success	3	3-0
COLLSUCC 20890201	Study Skills	1	1-0
COLLSUCC 20890202	Career Development	1	1-0

Ethnic Studies (One course)

Course may also count toward Humanities/Fine Arts, Social Science, or Electives.

SOC 10809172	Introduction to Diversity Studies	3	3-0
ENGLISH 20801207	World Indigenous Literatures	3	3-0
ENGLISH 20801212	Ethnic Literature	3	3-0
ENGLISH 20801213	Native American Literature	3	3-0
ENGLISH 20801214	African American Literature	3	3-0
ENGLISH 20801222	U.S. Latino Literature	3	3-0
HISTORY 20803214	Indigenous American History	3	3-0
HISTORY 20803238	US Latino History	3	3-0
HISTORY 20803240	African American History	3	3-0
HISTORY 20803244	Asian American History	3	3-0
MUSIC 20805229	Blues to Hip-Hop: Black American Music	3	3-0
SOCSCI 20809215	Education in a Pluralistic Society	3	3-0
SOC 20809252	Race and Ethnicity in the U.S.	3	3-0
SOCSCI 20809282	Introduction to Hmong American Studies	3	3-0
ANTHRO 20809283	Cultural Anthropology & Human Diversity	3	3-0

World Languages (One course)

May be met with one year in high school with a grade of "C" or better OR one semester in college.
College courses may also count toward Humanities/Fine Arts or Electives.
If requirement was satisfied with high school courses, email: enrollmentservices@madisoncollege.edu.
See World Language Courses under the Humanities and Fine Arts Requirement above.

Effective 2025-2026
Program Number: 208001-ED

University Transfer - Pre-major: Education

An Associate in Arts Degree

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
60 credits minimum to complete the program by satisfying the all requirements as defined.			
English and Speech (9 credits)			
Six credits must be in composition - English 1 and one other composition course. Three credits must be in public speaking.			
(Students should consult with an advisor to determine the best choice for their second composition course.)			
Composition Courses			
ENGLISH 20801201	English 1	3	3-0
ENGLISH 20801202	English 2	3	3-0
JOURNAL 20801245	Introduction to Journalism	3	3-0
JOURNAL 20801251	Introduction to Mass Communication	4	4-0
JOURNAL 20801256	Science Communication	3	3-0
Public Speaking Courses			
SPEECH 10801198	Speech	3	3-0
JOURNAL 20801269	On-Air Performance	3	2-2
SPEECH 20810202	Theory & Practice of Argumentation and Debate	3	3-0
SPEECH 20810211	Oral Interpretation	3	3-0
Kinesiology/Health/Wellness (1 credit)			
Completion of one of the listed courses is required.			
Kinesiology Courses			
KINES 20807210	Conditioning/Weight Training	1	0-2
KINES 20807214	Pickleball	1	0-2
KINES 20807215	Walking & Running for Fitness	1	0-2
KINES 20807219	Introduction to Kinesiology	2	2-0
KINES 20807223	Beginning Volleyball	1	0-2
KINES 20807245	Social Dance	1	0-2
KINES 20807248	Ballet	1	0-2
KINES 20807250	Badminton	1	0-2
KINES 20807254	Beginning Yoga	1	0-2
KINES 20807255	Prev/Care Athletic Injuries	2	1-2
KINES 20807258	First Aid and CPR	2	2-0
KINES 20807264	Intermediate Yoga	1	0-2
KINES 20807265	Beginning Soccer	1	0-2
KINES 20807266	Wellness Today	3	2-2
KINES 20807267	Health & Fitness for Life	2	2-0
KINES 20807268	Blueprint for Healthy Living	2	1.5-1
KINES 20807269	Stress Management Foundations	1	0-2
KINES 20807272	Fall Team Sports	1	0-2
KINES 20807273	Spring Team Sports	1	0-2

KINES 20807274	Roll, Release & Recover	1	0-2
KINES 20807280	Movement Education & Skills Lab	1	0-2
Humanities/Fine Arts (12 credits)			
Completion of courses from three disciplines is required. Choose courses from the following disciplines: art, art history, drama, film, literature, music, philosophy, world languages, writing and communication, and interdisciplinary humanities. Remaining credits to fulfill the requirement can be selected from any Humanities and Fine Arts courses offered within the AA degree.			
Art Courses			
ART 20815201	Basic Design	3	0-6
ART 20815205	Drawing 1	3	0-6
ART 20815215	Drawing 2	3	0-6
ART 20815219	Life Drawing 1	3	0-6
ART 20815220	Life Drawing 2	3	0-6
ART 20815221	Life Drawing 3	3	0-6
ART 20815227	2D Studio Independent Study	3	0-6
ART 20815233	Digital Photography Independent Study	3	0-6
ART 20815235	Creative Photography	3	0-6
ART 20815239	Digital Photography	3	0-6
ART 20815241	Painting 1	3	0-6
ART 20815242	Painting 2	3	0-6
ART 20815253	Jewelry 1	3	0-6
ART 20815254	Jewelry 2	3	0-6
ART 20815290	Ceramics 1	3	0-6
ART 20815291	Ceramics 2	3	0-6
ART 20815293	Ceramics Independent Study	3	0-6
ART 20815294	Ceramics Sculpture 1	3	0-6
ART 20815295	Ceramics Sculpture 2	3	0-6
ART 20815296	Ceramics Firing Techniques/Alternative Methods	3	0-6
ART 20815299	Ceramics Firing Techniques 2	3	0-6
Art History Courses			
ARTHIST 20815200	Art History: Ancient to Medieval	3	3-0
ARTHIST 20815210	Art History: Renaissance to Modern	3	3-0
ARTHIST 20815211	Art History: Women In Art	3	3-0
ARTHIST 20815228	Art History: Global Arts	3	3-0
Drama Courses			
DRAMA 20810230	Intro To Theatre	3	3-0
DRAMA 20810235	Stagecraft 1	3	3-0
DRAMA 20810238	Cultural Diversity in Contemporary American Theater	3	3-0
DRAMA 20810246	Stage Technology Practicum	1	0-2
DRAMA 20810260	Drama Practicum (1cr)	1	0-2
DRAMA 20810261	Drama Practicum (2cr)	2	0-4
DRAMA 20810262	Acting 1	3	3-0
DRAMA 20810263	Acting 2	3	3-0
DRAMA 20810270	Movement Theory & Training for Actors	1	0-2
Film Courses			
FILM 20810250	Introduction to Film	3	3-0
FILM 20810254	History Of World Cinema	3	3-0
Literature Courses			
ENGLISH 20801204	Introduction to Literature	3	3-0
ENGLISH 20801207	World Indigenous Literatures	3	3-0
ENGLISH 20801209	Literature and Science	3	3-0
ENGLISH 20801211	Queer Literature	3	3-0
ENGLISH 20801212	Ethnic Literature	3	3-0
ENGLISH 20801213	Native American Literature	3	3-0
ENGLISH 20801214	African American Literature	3	3-0
ENGLISH 20801221	Literature and Popular Culture	3	3-0
ENGLISH 20801222	U.S. Latino Literature	3	3-0
ENGLISH 20801226	Introduction to African Literature	3	3-0
ENGLISH 20801227	Children's Literature	3	3-0
ENGLISH 20801229	Contemporary Literature	3	3-0

ENGLISH 20801230	Classical Mythology	3	3-0
ENGLISH 20801250	Women In Literature	3	3-0
Music Courses			
MUSIC 20805202	Choir 1	1	0-2
MUSIC 20805203	Choir 2	1	0-2
MUSIC 20805205	Class Voice	1	0-2
MUSIC 20805207	World Music	3	3-0
MUSIC 20805211	Orchestra 1	1	0-2
MUSIC 20805212	Orchestra 2	1	0-2
MUSIC 20805216	Concert Band 1	1	0-2
MUSIC 20805217	Concert Band 2	1	0-2
MUSIC 20805219	Jazz Ensemble 1	1	0-2
MUSIC 20805220	Jazz Ensemble 2	1	0-2
MUSIC 20805221	Class Piano 1	1	0-2
MUSIC 20805227	Music Appreciation	3	3-0
MUSIC 20805229	Blues to Hip-Hop: Black American Music	3	3-0
MUSIC 20805260	Music Theory Fundamentals	3	3-0
MUSIC 20805278	Hist Pop/Rock Music	3	3-0
MUSIC 20805279	World Drumming Ensemble 1	1	0-2
MUSIC 20805280	World Drumming Ensemble 2	1	0-2
MUSIC 20805281	World Drumming Ensemble 3	1	0-2
MUSIC 20805282	World Drumming Ensemble 4	1	0-2
Philosophy Courses			
PHILOS 10809103	Think Critically & Creatively	3	3-0
PHILOS 10809166	Intro to Ethics: Theory & App	3	3-0
PHILOS 20809260	Intro Philosophy	3	3-0
PHILOS 20809261	Elementary Logic	4	4-0
PHILOS 20809262	Contemporary Moral Issues	3	3-0
PHILOS 20809263	East/West World View	3	3-0
PHILOS 20809264	Introduction to Logic and Critical Thinking	3	3-0
PHILOS 20809266	Ethics In Medicine	3	3-0
PHILOS 20809276	Business Ethics	3	3-0
World Languages Courses			
SPANISH 20802211	Spanish 1	4	3-2
SPANISH 20802212	Spanish 2	4	3-2
SPANISH 20802213	Spanish 3	4	3-2
SPANISH 20802214	Spanish 4	4	3-2
SPANISH 20802215	Spanish 5	3	3-0
SPANISH 20802218	Spanish 6	3	3-0
FRENCH 20802221	French 1	4	3-2
FRENCH 20802222	French 2	4	3-2
FRENCH 20802223	French 3	4	3-2
FRENCH 20802224	French 4	4	3-2
FRENCH 20802226	French 5	3	3-0
CHINESE 20802230	Intro to Mandarin Chinese 1	3	2-2
CHINESE 20802231	Intro to Mandarin Chinese 2	3	2-2
CHINESE 20802232	Mandarin Chinese 3	3	3-0
ARABIC 20802240	Intro to Modern Arabic 1	3	2-2
ARABIC 20802241	Intro to Modern Arabic 2	3	2-2
Writing and Communication Courses			
ENGLISH 10801195	Written Communication	3	3-0
COMM 10801196	Oral/Interpersonal Communication	3	3-0
ENGLISH 10801197	Technical Reporting	3	3-0
SPEECH 10801198	Speech	3	3-0
ENGLISH 20801202	English 2	3	3-0
ENGLISH 20801240	Creative Writing	3	3-0
ENGLISH 20801241	Creative Writing/Fiction	3	3-0
ENGLISH 20801243	Creative Writing/Poetry	3	3-0
ENGLISH 20801244	Creative Writing/Non Fiction	3	3-0
ENGLISH 20801249	Film Writing	3	3-0

JOURNAL 20801245	Introduction to Journalism	3	3-0
JOURNAL 20801251	Introduction to Mass Communication	4	4-0
JOURNAL 20801252	World Issues Journalism	3	3-0
JOURNAL 20801253	Photo/Video Storytelling	3	2-2
JOURNAL 20801256	Science Communication	3	3-0
JOURNAL 20801262	Social Media Writing	3	3-0
JOURNAL 20801269	On-Air Performance	3	2-2
JOURNAL 20801271	Journalism Practicum 1	1	0-2
JOURNAL 20801272	Journalism Practicum 2	1	0-2
JOURNAL 20801273	Journalism Practicum 3	2	0-4
JOURNAL 20801274	Journalism Practicum 4	2	0-4
COMM 20810200	Introduction to Communication Studies	3	3-0
SPEECH 20810202	Argumentation and Debate	3	3-0
COMM 20810205	Small Group & Interpersonal Communications	3	3-0
COMM 20810206	Difficult Conversations	3	3-0
SPEECH 20810211	Oral Interpretation	3	3-0
Interdisciplinary Humanit es Courses			
HUMAN 20801254	Media and Democracy	3	3-0
HUMAN 20802261	Intercultural Experience Practicum 1	1	0-2
HUMAN 20802262	Intercultural Experience Practicum 2	1	0-2
HUMAN 20802280	Global Studies Capstone	2	0-0
HUMAN 20810267	Leadership As An Art	3	3-0

Mathematics and Natural Science (10 credits)

Select one mathematics course at the level of Intermediate Algebra or higher. Select one biological science course and one physical science course; one of the courses must include a laboratory. If lab is a stand-alone course, the associated lecture component is also required.

Mathematics Courses

Recommended: College Algebra

MATH 20804201	Intermediate Algebra	4	3-2
MATH 20804203	Intermediate Algebra Part 2	3	2-2
MATH 20804210	Math for Elementary Teachers	3	3-0
MATH 20804211	Quantitative Reasoning	3	2-2
MATH 20804212	College Algebra	3	2-2
MATH 20804213	Trigonometry	3	2-2
MATH 20804214	Math for Elementary Teachers 2	3	3-0
COMPSCI 20804215	Computer Science 1	3	2-2
COMPSCI 20804216	Computer Science 2	3	2-2
MATH 20804220	Finite Math	3	2-2
MATH 20804221	Calculus Methods for Business and Social Sciences I	5	5-0
MATH 20804229	Precalculus	5	5-0
MATH 20804231	Calculus and Analytic Geometry 1	5	5-0
MATH 20804232	Calculus and Analytic Geometry 2	5	5-0
MATH 20804233	Calculus 3	5	5-0
MATH 20804240	Basic Statistics	4	3-2
MATH 20804241	Introduction to Engineering Statistics	3	2-2
MATH 20804255	Techniques in Ordinary Differential Equations	3	1-4
MATH 20804256	Elementary Matrix and Linear Algebra	3	1-4
MATH 20804265	Introduction to Discrete Mathematics	3	2-2
COMPSCI 20804270	Data Structures and Algorithms	4	4-0
Biological Science Lab Courses			
BIOLOGY 10806105	Principles of Animal Biology	4	3-2
BIOLOGY 10806177	Gen Anatomy & Physiology	4	3-2
BIOLOGY 10806179	Advanced Anatomy & Physiology	4	3-2
BIOLOGY 20806203	Introductory Zoology	5	4-2
BIOLOGY 20806207	Anatomy and Physiology 1	4	3-2
BIOLOGY 20806208	Anatomy and Physiology 2	4	3-2
BIOLOGY 20806215	Botany	5	3-4
BIOLOGY 20806226	Introduction To Human Biology	5	4-2
BIOLOGY 20806238	Plants, Parasites and People Lab	1	0-2

BIOLOGY 20806271	Cellular and Molecular Biology	5	3-4
BIOLOGY 20806272	Organismal Biology	5	3-4
BIOLOGY 20806274	General Microbiology	5	3-4
BIOLOGY 20806276	Principles of Genetics	4	3-2
BIOLOGY 20806283	General Ecology Lab	1	0-2
BIOLOGY 20806286	Environmental Science	4	2-4
Biological Courses without Lab			
BIOLOGY 20806204	Biological Greek and Latin Terminology	3	3-0
BIOLOGY 20806237	Plants, Parasites, and People	3	3-0
BIOLOGY 20806261	Human Nutrition	3	3-0
BIOLOGY 20806280	Environmental Issues	3	3-0
BIOLOGY 20806281	Biodiversity and Conservation Biology	3	3-0
Physical Science Lab Courses			
CHEM 10806134	General Chemistry	4	3-2
PHYSICS 10806139	Survey of Physics	3	1-4
CHEM 10806186	Intro to Biochemistry	4	3-2
CHEM 20806209	College Chemistry 1	5	3-4
CHEM 20806212	College Chemistry 2	5	3-4
PHYSICS 20806221	University Physics 1	5	3-4
PHYSICS 20806222	University Physics 2	5	3-4
PHYSICS 20806223	University Physics 1-Calculus-Based	5	2-6
PHYSICS 20806224	University Physics 2-Calculus Based	5	2-6
GENENG 20806234	Mechanics of Materials	4	3-2
PHYSGEO 20806236	Introduction to Geographic Information Systems and Science	4	3-2
PHYSICS 20806239	Modern Physics Lab	1	0-2
EARTHSCI 20806244	General Geology	4	3-2
EARTHSCI 20806247	Earth Science Lab	1	0-2
WEATHER 20806248	Weather and Climate Laboratory	1	0-2
EARTHSCI 20806249	Geologic Evolution of the Earth	4	3-2
EARTHSCI 20806251	Undergraduate Geology Field Experience	2	0-4
ASTRON 20806253	Astronomy: The Solar System	4	3-2
ASTRON 20806254	Astronomy: Stars & Galaxies	4	3-2
CHEM 20806259	Chemistry for Science and Engineering	5	4-2
CHEM 20806266	Organic Chemistry 1 Lab	2	0-4
CHEM 20806267	Organic Chemistry 2 Lab	2	0-4
PHYSICS 20806296	Advanced Solar Photovoltaic Technology	1	0-2
Physical Science Courses without Lab			
PHYSICS 20806220	Physics of Everyday Life	3	3-0
GENENG 20806232	Statics	3	2-2
GENENG 20806233	Dynamics	3	3-0
PHYSICS 20806235	Modern Physics	3	3-0
EARTHSCI 20806241	Earth Science	3	3-0
WEATHER 20806245	Weather And Climate	3	3-0
EARTHSCI 20806246	Survey of Oceanography	3	3-0
WEATHER 20806250	Climate and Climate Change	3	3-0
EARTHSCI 20806252	Natural Hazards	3	3-0
CHEM 20806256	Organic Chemistry 1 Lecture	4	4-0
CHEM 20806257	Organic Chemistry 2 Lecture	4	4-0
PHYSICS 20806291	Introduction to Renewable Energy	3	3-0
PHYSICS 20806292	Solar Photovoltaic Technology	3	3-0
WEATHER 20806255	Aviation Meteorology	3	3-0
BIOLOGY 20806282	General Ecology	3	3-0
Social Science (12 credits)			
Required Education Course			
EDFOUND 20809216	Introduction to Education and Teaching	3	3-0
Required Psychology Course			
PSYCH 10809198	Introduction to Psychology	3	3-0
Required Social Science Course			

SOCSCI 20809215	Education in a Pluralistic Society	3	3-0
The remaining 3 credits to fulfill the requirement can be selected from any social science courses offered within the AA degree.			
Anthropology Courses			
ANTHRO 20809280	General Anthropology	3	3-0
ANTHRO 20809281	Archaeology & Prehistoric World	3	3-0
ANTHRO 20809283	Cultural Anthropology & Human Diversity	3	3-0
ANTHRO 20809285	Anthropology of Myth, Magic, and Religion	3	3-0
Economics Courses			
ECON 10809195	Economics	3	3-0
ECON 20809211	Macroeconomics	3	3-0
ECON 20809212	Microeconomics	3	3-0
ECON 20809214	International Economics	3	3-0
ECON 20809228	Environmental Economics	3	3-0
Education Courses			
EDFOUND 20809217	Introduction to Special Education	3	3-0
History Courses			
HISTORY 20803201	Twentieth-Century America	3	3-0
HISTORY 20803204	Early Modern European History	3	3-0
HISTORY 20803205	European History Since 1815	3	3-0
HISTORY 20803208	History from Pharaohs to Popes	3	3-0
HISTORY 20803211	Early US History	3	3-0
HISTORY 20803212	Modern US History	3	3-0
HISTORY 20803214	Indigenous American History	3	3-0
HISTORY 20803224	Early African History	3	3-0
HISTORY 20803225	20th-Century World History	3	3-0
HISTORY 20803233	Gender and Women's History in Cultural Representations	3	3-0
HISTORY 20803238	US Latino History	3	3-0
HISTORY 20803240	African American History	3	3-0
HISTORY 20803242	History Nazi Germany 1919-1945	3	3-0
HISTORY 20803243	Modern African History	3	3-0
HISTORY 20803244	Asian American History	3	3-0
Political Science Courses			
POLISCI 10809122	Intro to Amer Government	3	3-0
POLISCI 20809218	Law and Society	3	3-0
POLISCI 20809222	State and Local Government	3	3-0
POLISCI 20809223	International Relations	3	3-0
POLISCI 20809227	Political Theory	3	3-0
POLISCI 20809242	Public Policy	3	3-0
POLISCI 20809245	Gender and Politics	3	3-0
POLISCI 20809246	African Politics	3	3-0
Psychology Courses			
PSYCH 10809159	Abnormal Psychology	3	3-0
PSYCH 10809188	Developmental Psychology	3	3-0
PSYCH 10809199	Psychology Of Human Relations	3	3-0
PSYCH 20809201	Human Sexuality	3	3-0
PSYCH 20809210	Psychology of Men	3	3-0
PSYCH 20809225	Social Psychology	3	3-0
PSYCH 20809233	Developmental Psychology	3	3-0
PSYCH 20809237	Abnormal Psychology	3	3-0
PSYCH 20809239	Child Human Development	3	3-0
PSYCH 20809249	Educational Psychology	3	3-0
PSYCH 20809296	Cognitive Psychology	3	3-0
PSYCH 20809297	Sport and Performance Psychology	3	3-0
Sociology Courses			
SOC 10809172	Introduction to Diversity Studies	3	3-0
SOC 10809196	Introduction to Sociology	3	3-0
SOC 10809197	Contemporary American Society	3	3-0
SOC 20809204	Sociology of Relationships and Families	3	3-0
SOC 20809207	Criminology	3	3-0

SOC 20809209	Sociology of Mental Health	3	3-0
SOC 20809252	Race and Ethnicity in the U.S.	3	3-0
SOC 20809253	Sociology of Gender	3	3-0
SOC 20809255	Introduction to LGBTQ+ Studies	3	3-0
SOC 20809277	Couple Relationships	1	1-0
SOC 20809291	Technology and Society	3	3-0
SOC 20809295	Victimology	3	3-0
Interdisciplinary Social Sc	*ence Courses*		
SOCSCI 20809206	Introduction to Women's Studies	3	3-0
SOCSCI 20809230	Statistics for the Social Sciences	4	4-0
SOCSCI 20809257	Gender and Women's Studies-Study Abroad Experience	1	1-0
SOCSCI 20809269	Energy, Environment and Society	3	3-0
SOCSCI 20809282	Introduction to Hmong American Studies	3	3-0
SOCSCI 20809290	Introduction to African Studies	3	3-0
SOCSCI 20809294	Introduction to Data Analytics	3	3-0

Electives (16 credits)

Select any courses offered within the University Transfer program or from the list of additional electives below. Most Internships and Honors Project credits may also be applied (20-code courses only).

Consult with your advisor to determine which courses are best for your intended transfer program (major and transfer institution).

BIOTECH 10007124	Molecular Biology 1	3	0-6
BIOTECH 10007125	Research Methods in Molecular Biology	3	0-6
ACCTG 10101111	Accounting 1 - Principles	4	4-0
ACCTG 10101113	Accounting 2 - Principles	4	4-0
ACCTG 10101118	Management Accounting	4	4-0
ACCTG 10101125	Cost Management	4	4-0
ACCTG 10101244	Financial Accounting	4	4-0
BUSADM 10102104	Business Statistics	3	3-0
BUSADM 10102134	Introduction to Business	3	3-0
BUSADM 10102143	Management Techniques	3	3-0
BUSADM 10102160	Business Law 1	3	3-0
MKTG 10104102	Marketing Principles	3	3-0
FINANCE 10114130	Personal Finance	3	3-0
HRMGT 10116145	Introduction to Human Resources	3	3-0
GRDSGN 10201177	Web Design	3	0-6
GRDSGN 10201181	Introduction to Design Software	3	0-6
EARLYCHL 10307110	ECE: Social Studies, Art, and Music	3	2-2
EARLYCHL 10307112	ECE: STEM (Science, Technology, Engineering, and Mathematics)	3	1-0
EARLYCHL 10307148	ECE: Foundations of Early Childhood Education	3	3-0
EARLYCHL 10307179	ECE: Child Development	3	3-0
EARLYCHL 10307187	ECE: Children with Differing Abilities	3	3-0
MTLFAB 10457100	Metal Repair Techniques	2	0-4
INDMECH 10462106	Mechanisms 1 for Industry	1	0-2
INDMECH 10462323	Controls 1	2	0-4
FOUNHLTH 10501101	Medical Terminology	3	3-0
CRIMJUST 10504900	Introduction to Criminal Justice	3	3-0
AUTOTEC 10602100	Automotive Fundamentals	2	0-4
AUTOTEC 10602101	Automotive Service Procedures	3	0-6
GENENG 10605270	AC/DC Circuit Techniques and Principles	3	1-4
GENENG 10606156	Statics and Mechanics 2: Centroids, Inertia, and Friction	1	1-0
MECTEC 10606160	Fundamentals of Manufacturing/Engineering Materials	2	1-2
MECTEC 10606161	Manufacturing Processes	2	1-2
MECTEC 10606186	Engineering Technology Applications	3	0-6
GENENG 10606231	Introductory Engineering Graphics	3	1-4
GENENG 10606232	Reverse Engineering and SolidWorks Assemblies	1	0-2
EMTEC 10620100	Introduction to PLCs	1	0-2
GENENG 10662121	Circuit Modeling 1	3	1-4
GENENG 10662221	Circuit Modeling 2	4	2-4

GENENG 10662252	Introduction to Computer Engineering	3	1-4
MATH 10804114	College Technical Math 1B	2	2-0
MATH 10804115	College Technical Math 1	5	5-0
MATH 10804116	College Technical Math 2	4	4-0
MATH 20804200	Principles Of Geometry	3	1-4
MATH 20804202	Intermediate Algebra Part 1	1	2-2
COMPSCI 20804217	Introduction to Programming in Python	3	2-2
BIOLOGY 20806219	Biology for Innovators	1	0-2
NATSCI 20806260	Professional Health Careers Seminar: Planning Your Future	1	0.5-1
NATSCI 20806264	STEM Seminar	1	1-0
PHYSICS 20806293	Solar Photovoltaic Installation Lab	1	0-2
GENENG 20806294	Engineering Seminar	1	0.5-1
GENENG 20806295	Introduction to Engineering	3	1-4
SOCSCI 20809213	Exploring Business Majors Seminar	1	0.5-1
COLLSUCC 20890200	College Success	3	3-0
COLLSUCC 20890201	Study Skills	1	1-0
COLLSUCC 20890202	Career Development	1	1-0

Ethnic Studies (One course)

Course may also count toward Humanities/Fine Arts, Social Science, or Electives.

SOC 10809172	Introduction to Diversity Studies	3	3-0
ENGLISH 20801207	World Indigenous Literatures	3	3-0
ENGLISH 20801212	Ethnic Literature	3	3-0
ENGLISH 20801213	Native American Literature	3	3-0
ENGLISH 20801214	African American Literature	3	3-0
ENGLISH 20801222	U.S. Latino Literature	3	3-0
HISTORY 20803214	Indigenous American History	3	3-0
HISTORY 20803238	US Latino History	3	3-0
HISTORY 20803240	African American History	3	3-0
HISTORY 20803244	Asian American History	3	3-0
MUSIC 20805229	Blues to Hip-Hop: Black American Music	3	3-0
SOCSCI 20809215	Education in a Pluralistic Society	3	3-0
SOC 20809252	Race and Ethnicity in the U.S.	3	3-0
SOCSCI 20809282	Introduction to Hmong American Studies	3	3-0
ANTHRO 20809283	Cultural Anthropology & Human Diversity	3	3-0

World Languages (One course)

May be met with one year in high school with a grade of "C" or better OR one semester in college.
College courses may also count toward Humanities/Fine Arts or Electives.
If requirement was satisfied with high school courses, email: enrollmentservices@madisoncollege.edu.
See World Languages Courses under the Humanities and Fine Arts Requirement above.

Effective 2025-2026
Program Number: 208002-E

University Transfer - Pre-major: Engineering

An Associate in Science Degree

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
60 credits minimum to complete the program by satisfying the all requirements as defined.			
English and Speech (9 credits)			
Six credits must be in composition - English 1 and one other composition course. Three credits must be in public speaking.			
(Students should consult with an advisor to determine the best choice for their second composition course.)			
Composition Courses			
ENGLISH 20801201	English 1	3	3-0
ENGLISH 20801202	English 2	3	3-0
JOURNAL 20801245	Introduction to Journalism	3	3-0
JOURNAL 20801251	Introduction to Mass Communication	4	4-0
JOURNAL 20801256	Science Communication	3	3-0
Public Speaking Courses			
SPEECH 10801198	Speech	3	3-0
JOURNAL 20801269	On-Air Performance	3	2-2
SPEECH 20810202	Theory & Practice of Argumentation and Debate	3	3-0
SPEECH 20810211	Oral Interpretation	3	3-0
Kinesiology/Health/Wellness (1 credit)			
Completion of one of the listed courses is required.			
Kinesiology Courses			
KINES 20807210	Conditioning/Weight Training	1	0-2
KINES 20807214	Pickleball	1	0-2
KINES 20807215	Walking & Running for Fitness	1	0-2
KINES 20807219	Introduction to Kinesiology	2	2-0
KINES 20807223	Beginning Volleyball	1	0-2
KINES 20807245	Social Dance	1	0-2
KINES 20807248	Ballet	1	0-2
KINES 20807250	Badminton	1	0-2
KINES 20807254	Beginning Yoga	1	0-2
KINES 20807255	Prev/Care Athletic Injuries	2	1-2
KINES 20807258	First Aid and CPR	2	2-0
KINES 20807264	Intermediate Yoga	1	0-2
KINES 20807265	Beginning Soccer	1	0-2
KINES 20807266	Wellness Today	3	2-2
KINES 20807267	Health & Fitness for Life	2	2-0
KINES 20807268	Blueprint for Healthy Living	2	1.5-1
KINES 20807269	Stress Management Foundations	1	0-2
KINES 20807272	Fall Team Sports	1	0-2
KINES 20807273	Spring Team Sports	1	0-2

KINES 20807274	Roll, Release & Recover	1	0-2
KINES 20807280	Movement Education & Skills Lab	1	0-2
Mathematics and Natural Science (25-26 credits)			
Required Mathematics Courses			
MATH 20804231	Calculus and Analytic Geometry 1	5	5-0
MATH 20804232	Calculus and Analytic Geometry 2	5	5-0
Chemistry Part 1: Completion of one of the listed courses:			
CHEM 20806209	College Chemistry 1	5	3-4
CHEM 20806259	Chemistry for Science and Engineering	5	4-2
Chemistry Part 2: Completion of one of the listed courses:			
CHEM 20806212	College Chemistry 2	5	3-4
MATH 20804233	Calculus 3	5	5-0
Choose one of the following options to satisfy the Physics requirement.			
Physics Option 1:			
PHYSICS 20806223	University Physics 1-Calculus-Based	5	2-6
Physics Option 2 (complete both courses):			
GENENG 20806232	Statics	3	2-2
GENENG 20806233	Dynamics	3	3-0
Humanities/Fine Arts (6 credits)			
Completion of courses from two disciplines is required. Choose courses from the following disciplines: art, art history, drama, film, literature, music, philosophy, world languages, writing and communication, and interdisciplinary humanities. Any remaining credits to fulfill the requirement can be selected from any Humanities and Fine Arts courses offered within the AS degree.			
Art Courses			
ART 20815201	Basic Design	3	0-6
ART 20815205	Drawing 1	3	0-6
ART 20815215	Drawing 2	3	0-6
ART 20815219	Life Drawing 1	3	0-6
ART 20815220	Life Drawing 2	3	0-6
ART 20815221	Life Drawing 3	3	0-6
ART 20815227	2D Studio Independent Study	3	0-6
ART 20815233	Digital Photography Independent Study	3	0-6
ART 20815235	Creative Photography	3	0-6
ART 20815239	Digital Photography	3	0-6
ART 20815241	Painting 1	3	0-6
ART 20815242	Painting 2	3	0-6
ART 20815253	Jewelry 1	3	0-6
ART 20815254	Jewelry 2	3	0-6
ART 20815290	Ceramics 1	3	0-6
ART 20815291	Ceramics 2	3	0-6
ART 20815293	Ceramics Independent Study	3	0-6
ART 20815294	Ceramics Sculpture 1	3	0-6
ART 20815295	Ceramics Sculpture 2	3	0-6
ART 20815296	Ceramics Firing Techniques/Alternative Methods	3	0-6
ART 20815299	Ceramics Firing Techniques 2	3	0-6
Art History Courses			
ARTHIST 20815200	Art History: Ancient to Medieval	3	3-0
ARTHIST 20815210	Art History: Renaissance to Modern	3	3-0
ARTHIST 20815211	Art History: Women In Art	3	3-0
ARTHIST 20815228	Art History: Global Arts	3	3-0
Drama Courses			
DRAMA 20810230	Intro To Theatre	3	3-0
DRAMA 20810235	Stagecraft 1	3	3-0
DRAMA 20810238	Cultural Diversity in Contemporary American Theater	3	3-0
DRAMA 20810246	Stage Technology Practicum	1	0-2
DRAMA 20810260	Drama Practicum (1cr)	1	0-2
DRAMA 20810261	Drama Practicum (2cr)	2	0-4
DRAMA 20810262	Acting 1	3	3-0
DRAMA 20810263	Acting 2	3	3-0

DRAMA 20810270	Movement Theory & Training for Actors	1	0-2
Film Courses			
FILM 20810250	Introduction to Film	3	3-0
FILM 20810254	History Of World Cinema	3	3-0
Literature Courses			
ENGLISH 20801204	Introduction to Literature	3	3-0
ENGLISH 20801207	World Indigenous Literatures	3	3-0
ENGLISH 20801209	Literature and Science	3	3-0
ENGLISH 20801211	Queer Literature	3	3-0
ENGLISH 20801212	Ethnic Literature	3	3-0
ENGLISH 20801213	Native American Literature	3	3-0
ENGLISH 20801214	African American Literature	3	3-0
ENGLISH 20801221	Literature and Popular Culture	3	3-0
ENGLISH 20801222	U.S. Latino Literature	3	3-0
ENGLISH 20801226	Introduction to African Literature	3	3-0
ENGLISH 20801227	Children's Literature	3	3-0
ENGLISH 20801229	Contemporary Literature	3	3-0
ENGLISH 20801230	Classical Mythology	3	3-0
ENGLISH 20801250	Women In Literature	3	3-0
Music Courses			
MUSIC 20805202	Choir 1	1	0-2
MUSIC 20805203	Choir 2	1	0-2
MUSIC 20805205	Class Voice	1	0-2
MUSIC 20805207	World Music	3	3-0
MUSIC 20805211	Orchestra 1	1	0-2
MUSIC 20805212	Orchestra 2	1	0-2
MUSIC 20805216	Concert Band 1	1	0-2
MUSIC 20805217	Concert Band 2	1	0-2
MUSIC 20805219	Jazz Ensemble 1	1	0-2
MUSIC 20805220	Jazz Ensemble 2	1	0-2
MUSIC 20805221	Class Piano 1	1	0-2
MUSIC 20805227	Music Appreciation	3	3-0
MUSIC 20805229	Blues to Hip-Hop: Black American Music	3	3-0
MUSIC 20805260	Music Theory Fundamentals	3	3-0
MUSIC 20805278	Hist Pop/Rock Music	3	3-0
MUSIC 20805279	World Drumming Ensemble 1	1	0-2
MUSIC 20805280	World Drumming Ensemble 2	1	0-2
MUSIC 20805281	World Drumming Ensemble 3	1	0-2
MUSIC 20805282	World Drumming Ensemble 4	1	0-2
Philosophy Courses			
PHILOS 10809103	Think Critically & Creatively	3	3-0
PHILOS 10809166	Intro to Ethics: Theory & App	3	3-0
PHILOS 20809260	Intro Philosophy	3	3-0
PHILOS 20809261	Elementary Logic	4	4-0
PHILOS 20809262	Contemporary Moral Issues	3	3-0
PHILOS 20809263	East/West World View	3	3-0
PHILOS 20809264	Introduction to Logic and Critical Thinking	3	3-0
PHILOS 20809266	Ethics In Medicine	3	3-0
PHILOS 20809276	Business Ethics	3	3-0
World Languages Courses			
SPANISH 20802211	Spanish 1	4	3-2
SPANISH 20802212	Spanish 2	4	3-2
SPANISH 20802213	Spanish 3	4	3-2
SPANISH 20802214	Spanish 4	4	3-2
SPANISH 20802215	Spanish 5	3	3-0
SPANISH 20802218	Spanish 6	3	3-0
FRENCH 20802221	French 1	4	3-2
FRENCH 20802222	French 2	4	3-2
FRENCH 20802223	French 3	4	3-2
FRENCH 20802224	French 4	4	3-2

FRENCH 20802226	French 5	3	3-0
CHINESE 20802230	Intro to Mandarin Chinese 1	3	2-2
CHINESE 20802231	Intro to Mandarin Chinese 2	3	2-2
CHINESE 20802232	Mandarin Chinese 3	3	3-0
ARABIC 20802240	Intro to Modern Arabic 1	3	2-2
ARABIC 20802241	Intro to Modern Arabic 2	3	2-2
Writing and Communicat on Courses			
ENGLISH 10801195	Written Communication	3	3-0
COMM 10801196	Oral/Interpersonal Communication	3	3-0
ENGLISH 10801197	Technical Reporting	3	3-0
SPEECH 10801198	Speech	3	3-0
ENGLISH 20801202	English 2	3	3-0
ENGLISH 20801240	Creative Writing	3	3-0
ENGLISH 20801241	Creative Writing/Fiction	3	3-0
ENGLISH 20801243	Creative Writing/Poetry	3	3-0
ENGLISH 20801244	Creative Writing/Non Fiction	3	3-0
ENGLISH 20801249	Film Writing	3	3-0
JOURNAL 20801245	Introduction to Journalism	3	3-0
JOURNAL 20801251	Introduction to Mass Communication	4	4-0
JOURNAL 20801252	World Issues Journalism	3	3-0
JOURNAL 20801253	Photo/Video Storytelling	3	2-2
JOURNAL 20801256	Science Communication	3	3-0
JOURNAL 20801262	Social Media Writing	3	3-0
JOURNAL 20801269	On-Air Performance	3	2-2
JOURNAL 20801271	Journalism Practicum 1	1	0-2
JOURNAL 20801272	Journalism Practicum 2	1	0-2
COMM 20810200	Introduction to Communication Studies	3	3-0
SPEECH 20810202	Argumentation and Debate	3	3-0
COMM 20810205	Small Group & Interpersonal Communications	3	3-0
COMM 20810206	Difficult Conversations	3	3-0
SPEECH 20810211	Oral Interpretation	3	3-0
JOURNAL 20801273	Journalism Practicum 3	2	0-4
JOURNAL 20801274	Journalism Practicum 4	2	0-4
Interdisciplinary Humanities Courses			
HUMAN 20801254	Media and Democracy	3	3-0
HUMAN 20802261	Intercultural Experience Practicum 1	1	0-2
HUMAN 20802262	Intercultural Experience Practicum 2	1	0-2
HUMAN 20802280	Global Studies Capstone	2	0-0
HUMAN 20810267	Leadership As An Art	3	3-0

Social Science (6 credits)

Choose Option #1 or Option #2 to satisfy the requirement.

Social Science Option #1

Required Economics Courses

ECON 20809212	Microeconomics	3	3-0
ECON 20809228	Environmental Economics	3	3-0

Social Science Option #2

Completion of courses from at least two disciplines is required. Choose courses from the following disciplines: anthropology, economics, education, history, political science, psychology, sociology, and interdisciplinary social science.

Anthropology Courses

ANTHRO 20809280	General Anthropology	3	3-0
ANTHRO 20809281	Archaeology & Prehistoric World	3	3-0
ANTHRO 20809283	Cultural Anthropology & Human Diversity	3	3-0
ANTHRO 20809285	Anthropology of Myth, Magic, and Religion	3	3-0
Economics Courses			
ECON 10809195	Economics	3	3-0
ECON 20809211	Macroeconomics	3	3-0
ECON 20809212	Microeconomics	3	3-0
ECON 20809214	International Economics	3	3-0
ECON 20809228	Environmental Economics	3	3-0

Education Courses			
EDFOUND 20809216	Introduction to Education and Teaching	3	3-0
EDFOUND 20809217	Introduction to Special Education	3	3-0
History Courses			
HISTORY 20803201	Twentieth-Century America	3	3-0
HISTORY 20803204	Early Modern European History	3	3-0
HISTORY 20803205	European History Since 1815	3	3-0
HISTORY 20803208	History from Pharaohs to Popes	3	3-0
HISTORY 20803211	Early US History	3	3-0
HISTORY 20803212	Modern US History	3	3-0
HISTORY 20803214	Indigenous American History	3	3-0
HISTORY 20803224	Early African History	3	3-0
HISTORY 20803225	20th-Century World History	3	3-0
HISTORY 20803233	Gender and Women's History in Cultural Representations	3	3-0
HISTORY 20803238	US Latino History	3	3-0
HISTORY 20803240	African American History	3	3-0
HISTORY 20803242	History Nazi Germany 1919-1945	3	3-0
HISTORY 20803243	Modern African History	3	3-0
HISTORY 20803244	Asian American History	3	3-0
Political Science Courses			
POLISCI 10809122	Intro to Amer Government	3	3-0
POLISCI 20809218	Law and Society	3	3-0
POLISCI 20809222	State and Local Government	3	3-0
POLISCI 20809223	International Relations	3	3-0
POLISCI 20809227	Political Theory	3	3-0
POLISCI 20809242	Public Policy	3	3-0
POLISCI 20809245	Gender and Politics	3	3-0
POLISCI 20809246	African Politics	3	3-0
Psychology Courses			
PSYCH 10809159	Abnormal Psychology	3	3-0
PSYCH 10809188	Developmental Psychology	3	3-0
PSYCH 10809198	Introduction to Psychology	3	3-0
PSYCH 10809199	Psychology Of Human Relations	3	3-0
PSYCH 20809201	Human Sexuality	3	3-0
PSYCH 20809210	Psychology of Men	3	3-0
PSYCH 20809225	Social Psychology	3	3-0
PSYCH 20809233	Developmental Psychology	3	3-0
PSYCH 20809237	Abnormal Psychology	3	3-0
PSYCH 20809239	Child Human Development	3	3-0
PSYCH 20809249	Educational Psychology	3	3-0
PSYCH 20809296	Cognitive Psychology	3	3-0
PSYCH 20809297	Sport and Performance Psychology	3	3-0
Sociology Courses			
SOC 10809172	Introduction to Diversity Studies	3	3-0
SOC 10809196	Introduction to Sociology	3	3-0
SOC 10809197	Contemporary American Society	3	3-0
SOC 20809204	Sociology of Relationships and Families	3	3-0
SOC 20809207	Criminology	3	3-0
SOC 20809209	Sociology of Mental Health	3	3-0
SOC 20809252	Race and Ethnicity in the U.S.	3	3-0
SOC 20809253	Sociology of Gender	3	3-0
SOC 20809255	Introduction to LGBTQ+ Studies	3	3-0
SOC 20809277	Couple Relationships	1	1-0
SOC 20809291	Technology and Society	3	3-0
SOC 20809295	Victimology	3	3-0
Interdisciplinary Social Science Courses			
SOCSCI 20809206	Introduction to Women's Studies	3	3-0
SOCSCI 20809215	Education in a Pluralistic Society	3	3-0
SOCSCI 20809230	Statistics for the Social Sciences	4	4-0
SOCSCI 20809257	Gender and Women's Studies-Study Abroad Experience	1	1-0

SOCSCI 20809269	Energy, Environment and Society	3	3-0
SOCSCI 20809282	Introduction to Hmong American Studies	3	3-0
SOCSCI 20809290	Introduction to African Studies	3	3-0
SOCSCI 20809294	Introduction to Data Analytics	3	3-0

Ethnic Studies (One course)
Course may also count toward Humanities/Fine Arts, Social Science, or Electives

SOC 10809172	Introduction to Diversity Studies	3	3-0
ENGLISH 20801207	World Indigenous Literatures	3	3-0
ENGLISH 20801212	Ethnic Literature	3	3-0
ENGLISH 20801213	Native American Literature	3	3-0
ENGLISH 20801214	African American Literature	3	3-0
ENGLISH 20801222	U.S. Latino Literature	3	3-0
HISTORY 20803214	Indigenous American History	3	3-0
HISTORY 20803238	US Latino History	3	3-0
HISTORY 20803240	African American History	3	3-0
HISTORY 20803244	Asian American History	3	3-0
MUSIC 20805229	Blues to Hip-Hop: Black American Music	3	3-0
SOCSCI 20809215	Education in a Pluralistic Society	3	3-0
SOC 20809252	Race and Ethnicity in the U.S.	3	3-0
SOCSCI 20809282	Introduction to Hmong American Studies	3	3-0
ANTHRO 20809283	Cultural Anthropology & Human Diversity	3	3-0

World Languages (One course)
May be met with one year of high school with a grade of "C" or better OR one semester in college.
College course may also count toward Humanities/Fine Arts or Electives.
See World Languages Courses under the Humanities and Fine Arts Requirement above.
If requirement was satisfied with high school courses, email: enrollmentservices@madisoncollege.edu.

Engineering Electives (13 credits)
Consult with your advisor to determine which courses are best for your intended transfer program.
Engineering Elective Choices:

BUSADM 10102160	Business Law 1	3	3-0
ELECT 10605173	Embedded Programming	3	1-4
GENENG 10605270	AC/DC Circuit Techniques and Principles	3	1-4
GENENG 10606156	Statics and Mechanics 2: Centroids, Inertia, and Friction	1	1-0
GENENG 10606231	Introductory Engineering Graphics	3	1-4
GENENG 10606232	Reverse Engineering and Solidworks Assemblies	1	0-2
CIVILET 10607155	Survey 1	3	1.5-3
GENENG 10662121	Circuit Modeling 1	3	1-4
GENENG 10662221	Circuit Modeling 2	4	2-4
GENENG 10662252	Introduction to Computer Engineering	3	1-4
COMPSCI 20804215	Computer Science 1	3	2-2
COMPSCI 20804216	Computer Science 2	3	2-2
COMPSCI 20804217	Introduction to Programming in Python	3	2-2
MATH 20804233	Calculus 3	5	5-0
MATH 20804241	Introduction to Engineering Statistics	3	2-2
MATH 20804255	Techniques in Ordinary Differential Equations	3	1-4
MATH 20804256	Elementary Matrix and Linear Algebra	3	1-4
MATH 20804265	Introduction to Discrete Mathematics	3	2-2
COMPSCI 20804270	Data Structures and Algorithms	4	4-0
BIOLOGY 20806203	Introductory Zoology	5	4-2
BIOLOGY 20806206	General Anatomy and Physiology	4	3-2
CHEM 20806212	College Chemistry 2	5	3-4
PHYSICS 20806224	University Physics 2-Calculus Based	5	2-6
GENENG 20806232	Statics	3	2-2
GENENG 20806233	Dynamics	3	3-0
GENENG 20806234	Mechanics of Materials	4	3-2
PHYSGEO 20806236	Introduction to Geographic Information Systems and Science	4	3-2

PHYSICS 20806239	Modern Physics Lab	1	0-2
EARTHSCI 20806244	General Geology	4	3-2
CHEM 20806256	Organic Chemistry 1 Lecture	4	4-0
CHEM 20806257	Organic Chemistry 2 Lecture	4	4-0
CHEM 20806266	Organic Chemistry 1 Lab	2	0-4
CHEM 20806267	Organic Chemistry 2 Lab	2	0-4
BIOLOGY 20806271	Cellular and Molecular Biology	5	3-4
BIOLOGY 20806272	Organismal Biology	5	3-4
BIOLOGY 20806274	General Microbiology	5	3-4
BIOLOGY 20806282	General Ecology	3	3-0
BIOLOGY 20806283	General Ecology Lab	1	0-2
PHYSICS 20806287	Special Topics: Energy Storage	2	1.5-1
PHYSICS 20806291	Introduction to Renewable Energy	3	3-0
PHYSICS 20806292	Solar Photovoltaic Technology	3	3-0
PHYSICS 20806293	Solar Photovoltaic Installation Lab	1	0-2
GENENG 20806294	Engineering Seminar	1	0.5-1
GENENG 20806295	Introduction to Engineering	3	1-4
PHYSICS 20806296	Advanced Solar Photovoltaic Technology	1	0-2
SOCSCI 20809269	Energy, Environment and Society	3	3-0
PSYCH 20809296	Cognitive Psychology	3	3-0

Effective 2025-2026
Program Number: 208002-N

University Transfer - Pre-major: Pre-BSN Nursing

An Associate in Science Degree

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
60 credits minimum to complete the program by satisfying the all requirements as defined.			
English and Speech (9 credits)			
Six credits must be in composition - English 1 and one other composition course. Three credits must be in public speaking.			
(Students should consult with an advisor to determine the best choice for their second composition course.)			
Composition Courses			
ENGLISH 20801201	English 1	3	3-0
ENGLISH 20801202	English 2	3	3-0
JOURNAL 20801245	Introduction to Journalism	3	3-0
JOURNAL 20801251	Introduction to Mass Communication	4	4-0
JOURNAL 20801256	Science Communication	3	3-0
Public Speaking Courses			
SPEECH 10801198	Speech	3	3-0
JOURNAL 20801269	On-Air Performance	3	2-2
SPEECH 20810202	Theory & Practice of Argumentation and Debate	3	3-0
SPEECH 20810211	Oral Interpretation	3	3-0
Kinesiology/Health/Wellness (1 credit)			
Completion of one of the listed courses is required.			
Kinesiology Courses			
KINES 20807210	Conditioning/Weight Training	1	0-2
KINES 20807214	Pickleball	1	0-2
KINES 20807215	Walking & Running for Fitness	1	0-2
KINES 20807219	Introduction to Kinesiology	2	2-0
KINES 20807223	Beginning Volleyball	1	0-2
KINES 20807245	Social Dance	1	0-2
KINES 20807248	Ballet	1	0-2
KINES 20807250	Badminton	1	0-2
KINES 20807254	Beginning Yoga	1	0-2
KINES 20807255	Prev/Care Athletic Injuries	2	1-2
KINES 20807258	First Aid and CPR	2	2-0
KINES 20807264	Intermediate Yoga	1	0-2
KINES 20807265	Beginning Soccer	1	0-2
KINES 20807266	Wellness Today	3	2-2
KINES 20807267	Health & Fitness for Life	2	2-0
KINES 20807268	Blueprint for Healthy Living	2	1.5-1
KINES 20807269	Stress Management Foundations	1	0-2
KINES 20807272	Fall Team Sports	1	0-2
KINES 20807273	Spring Team Sports	1	0-2

KINES 20807274	Roll, Release & Recover	1	0-2
KINES 20807280	Movement Education & Skills Lab	1	0-2
Humanities/Fine Arts (6 credits)			
Completion of courses from two disciplines is required. Choose courses from the following disciplines: art, art history, drama, film, literature, music, philosophy, world languages, writing and communication, and interdisciplinary humanities. Any remaining credits to fulfill the requirement can be selected from any Humanities and Fine Arts courses offered within the AS degree.			
Art Courses			
ART 20815201	Basic Design	3	0-6
ART 20815205	Drawing 1	3	0-6
ART 20815215	Drawing 2	3	0-6
ART 20815219	Life Drawing 1	3	0-6
ART 20815220	Life Drawing 2	3	0-6
ART 20815221	Life Drawing 3	3	0-6
ART 20815227	2D Studio Independent Study	3	0-6
ART 20815233	Digital Photography Independent Study	3	0-6
ART 20815235	Creative Photography	3	0-6
ART 20815239	Digital Photography	3	0-6
ART 20815241	Painting 1	3	0-6
ART 20815242	Painting 2	3	0-6
ART 20815253	Jewelry 1	3	0-6
ART 20815254	Jewelry 2	3	0-6
ART 20815290	Ceramics 1	3	0-6
ART 20815291	Ceramics 2	3	0-6
ART 20815293	Ceramics Independent Study	3	0-6
ART 20815294	Ceramics Sculpture 1	3	0-6
ART 20815295	Ceramics Sculpture 2	3	0-6
ART 20815296	Ceramics Firing Techniques/Alternative Methods	0	0-6
ART 20815299	Ceramics Firing Techniques 2	3	0-6
Art History			
ARTHIST 20815200	Art History: Ancient to Medieval	3	3-0
ARTHIST 20815210	Art History: Renaissance to Modern	3	3-0
ARTHIST 20815211	Art History: Women In Art	3	3-0
ARTHIST 20815228	Art History: Global Arts	3	3-0
Drama Courses			
DRAMA 20810230	Intro To Theatre	3	3-0
DRAMA 20810235	Stagecraft 1	3	3-0
DRAMA 20810238	Cultural Diversity in Contemporary American Theater	3	3-0
DRAMA 20810246	Stage Technology Practicum	1	0-2
DRAMA 20810260	Drama Practicum (1 cr)	1	0-2
DRAMA 20810261	Drama Practicum (2cr)	2	0-4
DRAMA 20810262	Acting 1	3	3-0
DRAMA 20810263	Acting 2	3	3-0
DRAMA 20810270	Movement Theory & Training for Actors	1	0-2
Film Courses			
FILM 20810250	Introduction to Film	3	3-0
FILM 20810254	History Of World Cinema	3	3-0
Literature Courses			
ENGLISH 20801204	Introduction to Literature	3	3-0
ENGLISH 20801207	World Indigenous Literatures	3	3-0
ENGLISH 20801209	Literature and Science	3	3-0
ENGLISH 20801211	Queer Literature	3	3-0
ENGLISH 20801212	Ethnic Literature	3	3-0
ENGLISH 20801213	Native American Literature	3	3-0
ENGLISH 20801214	African American Literature	3	3-0
ENGLISH 20801221	Literature and Popular Culture	3	3-0
ENGLISH 20801222	U.S. Latino Literature	3	3-0
ENGLISH 20801226	Introduction to African Literature	3	3-0
ENGLISH 20801227	Children's Literature	3	3-0
ENGLISH 20801229	Contemporary Literature	3	3-0

ENGLISH 20801230	Classical Mythology	3	3-0
ENGLISH 20801250	Women In Literature	3	3-0
Music Courses			
MUSIC 20805202	Choir 1	1	0-2
MUSIC 20805203	Choir 2	1	0-2
MUSIC 20805205	Class Voice	1	0-2
MUSIC 20805207	World Music	3	3-0
MUSIC 20805211	Orchestra 1	1	0-2
MUSIC 20805212	Orchestra 2	1	0-2
MUSIC 20805216	Concert Band 1	1	0-2
MUSIC 20805217	Concert Band 2	1	0-2
MUSIC 20805219	Jazz Ensemble 1	1	0-2
MUSIC 20805220	Jazz Ensemble 2	1	0-2
MUSIC 20805221	Class Piano 1	1	0-2
MUSIC 20805227	Music Appreciation	3	3-0
MUSIC 20805229	Blues to Hip-Hop: Black American Music	3	3-0
MUSIC 20805260	Music Theory Fundamentals	3	3-0
MUSIC 20805278	Hist Pop/Rock Music	3	3-0
MUSIC 20805279	World Drumming Ensemble 1	1	0-2
MUSIC 20805280	World Drumming Ensemble 2	1	0-2
MUSIC 20805281	World Drumming Ensemble 3	1	0-2
MUSIC 20805282	World Drumming Ensemble 4	1	0-2
Philosophy Courses			
PHILOS 10809103	Think Critically & Creatively	3	3-0
PHILOS 10809166	Introduction to Ethics: Theory and Applications	3	3-0
PHILOS 20809260	Intro Philosophy	3	3-0
PHILOS 20809261	Elementary Logic	4	4-0
PHILOS 20809262	Contemporary Moral Issues	3	3-0
PHILOS 20809263	East/West World View	3	3-0
PHILOS 20809264	Introduction to Logic and Critical Thinking	3	3-0
PHILOS 20809266	Ethics In Medicine	3	3-0
PHILOS 20809276	Business Ethics	3	3-0
World Languages Courses			
SPANISH 20802211	Spanish 1	4	3-2
SPANISH 20802212	Spanish 2	4	3-2
SPANISH 20802213	Spanish 3	4	3-2
SPANISH 20802214	Spanish 4	4	3-2
SPANISH 20802215	Spanish 5	3	3-0
SPANISH 20802218	Spanish 6	3	3-0
FRENCH 20802221	French 1	4	3-2
FRENCH 20802222	French 2	4	3-2
FRENCH 20802223	French 3	4	3-2
FRENCH 20802224	French 4	4	3-2
FRENCH 20802226	French 5	3	3-0
CHINESE 20802230	Intro to Mandarin Chinese 1	3	2-2
CHINESE 20802231	Intro to Mandarin Chinese 2	3	2-2
CHINESE 20802232	Mandarin Chinese 3	3	3-0
ARABIC 20802240	Intro to Modern Arabic 1	3	2-2
ARABIC 20802241	Intro to Modern Arabic 2	3	2-2
Writing and Communication Courses			
ENGLISH 10801195	Written Communication	3	3-0
COMM 10801196	Oral/Interpersonal Communication	3	3-0
ENGLISH 10801197	Technical Reporting	3	3-0
SPEECH 10801198	Speech	3	3-0
ENGLISH 20801202	English 2	3	3-0
ENGLISH 20801240	Creative Writing	3	3-0
ENGLISH 20801241	Creative Writing/Fiction	3	3-0
ENGLISH 20801243	Creative Writing/Poetry	3	3-0
ENGLISH 20801244	Creative Writing/Non Fiction	3	3-0
JOURNAL 20801245	Introduction to Journalism	3	3-0

ENGLISH 20801249	Film Writing	3	3-0
JOURNAL 20801251	Introduction to Mass Communication	4	4-0
JOURNAL 20801252	World Issues Journalism	3	3-0
JOURNAL 20801253	Photo/Video Storytelling	3	2-2
JOURNAL 20801256	Science Communication	3	3-0
JOURNAL 20801262	Social Media Writing	3	3-0
JOURNAL 20801269	On-Air Performance	3	2-2
JOURNAL 20801271	Journalism Practicum 1	1	0-2
JOURNAL 20801272	Journalism Practicum 2	1	0-2
JOURNAL 20801273	Journalism Practicum 3	2	0-4
JOURNAL 20801274	Journalism Practicum 4	2	0-4
COMM 20810200	Introduction to Communication Studies	3	3-0
SPEECH 20810202	Argumentation and Debate	3	3-0
COMM 20810205	Small Group & Interpersonal Communications	3	3-0
COMM 20810206	Difficult Conversations	3	3-0
SPEECH 20810211	Oral Interpretation	3	3-0
Interdisciplinary Humanit es Courses			
HUMAN 20801254	Media and Democracy	3	3-0
HUMAN 20802261	Intercultural Experience Practicum 1	1	0-2
HUMAN 20802262	Intercultural Experience Practicum 2	1	0-2
HUMAN 20802280	Global Studies Capstone	2	0-0
HUMAN 20810267	Leadership As An Art	3	3-0

Mathematics and Statistics (7 credits)

Basic Statistics is required. Select one additional mathematics course at the level of College Algebra or higher.

Required Statistics course

MATH 20804240	Basic Statistics	4	3-2

Select at least one of the following Mathematics courses.

Mathematics Courses

MATH 20804210	Math for Elementary Teachers	3	3-0
MATH 20804211	Quantitative Reasoning	3	2-2
MATH 20804212	College Algebra	3	2-2
MATH 20804213	Trigonometry	3	2-2
MATH 20804214	Math for Elementary Teachers 2	3	3-0
MATH 20804220	Finite Math	3	2-2
MATH 20804221	Calculus Methods for Business and Social Sciences I	5	5-0
MATH 20804229	Precalculus	5	5-0
MATH 20804231	Calculus and Analytic Geometry 1	5	5-0
MATH 20804232	Calculus and Analytic Geometry 2	5	5-0
MATH 20804233	Calculus 3	5	5-0
MATH 20804241	Introduction to Engineering Statistics	3	2-2
MATH 20804255	Techniques in Ordinary Differential Equations	3	1-4
MATH 20804256	Elementary Matrix and Linear Algebra	3	1-4
MATH 20804265	Introduction to Discrete Mathematics	3	2-2

Natural Science (17 credits)

Biology

Select a biology option and complete both of the courses for that option.

Consult with your advisor to determine which set of courses are best for your intended transfer program (major and transfer institution).

Biology Option 1 (recommended option):

BIOLOGY 20806207	Anatomy and Physiology 1	4	3-2
BIOLOGY 20806208	Anatomy and Physiology 2	4	3-2

Biology Option 2:

BIOLOGY 10806177	General Anatomy & Physiology	4	3-2
BIOLOGY 10806179	Advanced Anatomy & Physiology	4	3-2

Microbiology

Select one of the following Microbiology courses.

BIOLOGY 10806197	Microbiology-University Medical	4	2-4
BIOLOGY 20806274	General Microbiology	5	3-4

Chemistry			
Required Chemistry Course			
CHEM 20806209	College Chemistry 1	5	3-4
Social Science (9 credits)			
Required Courses			
SOC 10809196	Introduction to Sociology	3	3-0
PSYCH 10809198	Introduction to Psychology	3	3-0
And select one of the following Developmental Psychology courses. (20809233 is recommended)			
PSYCH 10809188	Developmental Psychology	3	3-0
PSYCH 20809233	Developmental Psychology	3	3-0
Electives (11 credits)			
Select any courses offered within the University Transfer program or from the list of additional electives below. Most Internships and Honors Project credits may also be applied (20-code courses only).			
Consult with your advisor to determine which courses are best for your intended transfer program (major and transfer institution).			
BIOTECH 10007124	Molecular Biology 1	3	0-6
BIOTECH 10007125	Research Methods in Molecular Biology	3	0-6
ACCTG 10101111	Accounting 1 - Principles	4	4-0
ACCTG 10101113	Accounting 2 - Principles	4	4-0
ACCTG 10101118	Management Accounting	4	4-0
ACCTG 10101125	Cost Management	4	4-0
ACCTG 10101244	Financial Accounting	4	4-0
BUSADM 10102104	Business Statistics	3	3-0
BUSADM 10102134	Introduction to Business	3	3-0
BUSADM 10102143	Management Techniques	3	3-0
BUSADM 10102160	Business Law 1	3	3-0
MKTG 10104102	Marketing Principles	3	3-0
FINANCE 10114130	Personal Finance	3	3-0
HRMGT 10116145	Introduction to Human Resources	3	3-0
GRDSGN 10201181	Introduction to Design Software	3	0-6
EARLYCHL 10307110	ECE: Social Studies, Art, and Music	3	2-2
EARLYCHL 10307112	ECE: STEM (Science, Technology, Engineering, and Mathematics)	3	1-0
EARLYCHL 10307148	ECE: Foundations of Early Childhood Education	3	3-0
EARLYCHL 10307179	ECE: Child Development	3	3-0
EARLYCHL 10307187	ECE: Children with Differing Abilities	3	3-0
MTLFAB 10457100	Metal Repair Techniques	2	0-4
INDMECH 10462106	Mechanisms 1 for Industry	1	0-2
INDMECH 10462323	Controls 1	2	0-4
FOUNHLTH 10501101	Medical Terminology	3	3-0
CRIMJUST 10504900	Introduction to Criminal Justice	3	3-0
AUTOTEC 10602100	Automotive Fundamentals	2	0-4
AUTOTEC 10602101	Automotive Service Procedures	3	0-6
GENENG 10605270	AC/DC Circuit Techniques and Principles	3	1-4
GENENG 10606156	Statics and Mechanics 2: Centroids, Inertia, and Friction	1	1-0
MECTEC 10606160	Fundamentals of Manufacturing/Engineering Materials	2	1-2
MECTEC 10606161	Manufacturing Processes	2	1-2
MECTEC 10606186	Engineering Technology Applications	3	0-6
GENENG 10606231	Introductory Engineering Graphics	3	1-4
GENENG 10606232	Reverse Engineering and Solidworks Assemblies	1	0-2
EMTEC 10620100	Introduction to PLCs	1	0-2
GENENG 10662121	Circuit Modeling 1	3	1-4
GENENG 10662221	Circuit Modeling 2	4	2-4
GENENG 10662252	Introduction to Computer Engineering	3	1-4
MATH 10804114	College Technical Math 1B	2	2-0
MATH 10804115	College Technical Math 1	5	5-0
MATH 10804116	College Technical Math 2	4	4-0

BIOLOGY 10806105	Principles of Animal Biology	4	3-2
CHEM 10806134	General Chemistry	4	3-2
PHYSICS 10806139	Survey of Physics	3	1-4
CHEM 10806186	Intro to Biochemistry	4	3-2
BIOLOGY 10806197	Microbiology-University Medical	4	2-4
PHILOS 10809103	Think Critically & Creatively	3	3-0
POLISCI 10809122	Intro to Amer Government	3	3-0
PSYCH 10809159	Abnormal Psychology	3	3-0
SOC 10809172	Introduction to Diversity Studies	3	3-0
ECON 10809195	Economics	3	3-0
SOC 10809197	Contemporary American Society	3	3-0
PSYCH 10809199	Psychology Of Human Relations	3	3-0
HISTORY 20803201	Twentieth-Century America	3	3-0
HISTORY 20803204	Early Modern European History	3	3-0
HISTORY 20803205	European History Since 1815	3	3-0
HISTORY 20803208	History from Pharaohs to Popes	3	3-0
HISTORY 20803211	Early US History	3	3-0
HISTORY 20803212	Modern US History	3	3-0
HISTORY 20803224	Early African History	3	3-0
HISTORY 20803225	20th-Century World History	3	3-0
HISTORY 20803233	Gender and Women's History in Cultural Representations	3	3-0
HISTORY 20803238	US Latino History	3	3-0
HISTORY 20803240	African American History	3	3-0
HISTORY 20803242	History Nazi Germany 1919-1945	3	3-0
HISTORY 20803243	Modern African History	3	3-0
HISTORY 20803244	Asian American History	3	3-0
MATH 20804200	Principles Of Geometry	3	1-4
MATH 20804201	Intermediate Algebra	4	3-2
MATH 20804202	Intermediate Algebra Part 1	3	2-2
MATH 20804203	Intermediate Algebra Part 2	3	2-2
COMPSCI 20804215	Computer Science 1	3	2-2
COMPSCI 20804216	Computer Science 2	3	2-2
COMPSCI 20804217	Introduction to Programming in Python	3	2-2
COMPSCI 20804270	Data Structures and Algorithms	4	4-0
BIOLOGY 20806203	Introductory Zoology	5	4-2
BIOLOGY 20806204	Biological Greek and Latin Terminology	3	3-0
CHEM 20806212	College Chemistry 2	5	3-4
BIOLOGY 20806215	Botany	5	3-4
BIOLOGY 20806219	Biology for Innovators	1	0-2
PHYSICS 20806220	Physics of Everyday Life	3	3-0
PHYSICS 20806221	University Physics 1	5	3-4
PHYSICS 20806222	University Physics 2	5	3-4
PHYSICS 20806223	University Physics 1-Calculus-Based	5	2-6
PHYSICS 20806224	University Physics 2-Calculus Based	5	2-6
BIOLOGY 20806226	Introduction To Human Biology	5	4-2
GENENG 20806232	Statics	3	2-2
GENENG 20806233	Dynamics	3	3-0
GENENG 20806234	Mechanics of Materials	4	3-2
PHYSICS 20806235	Modern Physics	3	3-0
PHYSGEO 20806236	Introduction to Geographic Information Systems and Science	4	3-2
BIOLOGY 20806237	Plants, Parasites, and People	3	3-0
BIOLOGY 20806238	Plants, Parasites and People Lab	1	0-2
PHYSICS 20806239	Modern Physics Lab	1	0-2
EARTHSCI 20806241	Earth Science	3	3-0
EARTHSCI 20806244	General Geology	4	3-2
WEATHER 20806245	Weather And Climate	3	3-0
EARTHSCI 20806246	Survey of Oceanography	3	3-0
EARTHSCI 20806247	Earth Science Lab	1	0-2
WEATHER 20806248	Weather and Climate Laboratory	1	0-2

EARTHSCI 20806249	Geologic Evolution of the Earth	4	3-2
WEATHER 20806250	Climate and Climate Change	3	3-0
EARTHSCI 20806251	Undergraduate Geology Field Experience	2	0-4
EARTHSCI 20806252	Natural Hazards	3	3-0
ASTRON 20806253	Astronomy: The Solar System	4	3-2
ASTRON 20806254	Astronomy: Stars & Galaxies	4	3-2
WEATHER 20806255	Aviation Meteorology	3	3-0
CHEM 20806256	Organic Chemistry 1 Lecture	4	4-0
CHEM 20806257	Organic Chemistry 2 Lecture	4	4-0
CHEM 20806259	Chemistry for Science and Engineering	5	4-2
NATSCI 20806260	Professional Health Careers Seminar: Planning Your Future	1	0.5-1
BIOLOGY 20806261	Human Nutrition	3	3-0
NATSCI 20806264	Science, Mathematics, and Technology Seminar	1	1-0
CHEM 20806266	Organic Chemistry 1 Lab	2	0-4
CHEM 20806267	Organic Chemistry 2 Lab	2	0-4
BIOLOGY 20806271	Cellular and Molecular Biology	5	3-4
BIOLOGY 20806272	Organismal Biology	5	3-4
BIOLOGY 20806274	General Microbiology	5	3-4
BIOLOGY 20806276	Principles of Genetics	4	3-2
BIOLOGY 20806280	Environmental Issues	3	3-0
BIOLOGY 20806281	Biodiversity and Conservation Biology	3	3-0
BIOLOGY 20806282	General Ecology	3	3-0
BIOLOGY 20806283	General Ecology Lab	1	0-2
BIOLOGY 20806286	Environmental Science	4	2-4
PHYSICS 20806291	Introduction to Renewable Energy	3	3-0
PHYSICS 20806292	Solar Photovoltaic Technology	3	3-0
PHYSICS 20806293	Solar Photovoltaic Installation Lab	1	0-2
GENENG 20806294	Engineering Seminar	1	0.5-1
GENENG 20806295	Introduction to Engineering	3	1-4
PHYSICS 20806296	Advanced Solar Photovoltaic Technology	1	0-2
PSYCH 20809201	Human Sexuality	3	3-0
SOC 20809204	Sociology of Relationships and Families	3	3-0
SOCSCI 20809206	Introduction to Women's Studies	3	3-0
SOC 20809207	Criminology	3	3-0
SOC 20809209	Sociology of Mental Health	3	3-0
PSYCH 20809210	Psychology of Men	3	3-0
ECON 20809211	Macroeconomics	3	3-0
ECON 20809212	Microeconomics	3	3-0
SOCSCI 20809213	Exploring Business Majors Seminar	1	0.5-1
ECON 20809214	International Economics	3	3-0
SOCSCI 20809215	Education in a Pluralistic Society	3	3-0
EDFOUND 20809216	Introduction to Education and Teaching	3	3-0
EDFOUND 20809217	Introduction to Special Education	3	3-0
POLISCI 20809218	Law and Society	3	3-0
POLISCI 20809222	State and Local Government	3	3-0
POLISCI 20809223	International Relations	3	3-0
PSYCH 20809225	Social Psychology	3	3-0
POLISCI 20809227	Political Theory	3	3-0
ECON 20809228	Environmental Economics	3	3-0
SOCSCI 20809230	Statistics for the Social Sciences	4	4-0
PSYCH 20809237	Abnormal Psychology	3	3-0
PSYCH 20809239	Child Human Development	3	3-0
POLISCI 20809242	Public Policy	3	3-0
POLISCI 20809245	Gender and Politics	3	3-0
POLISCI 20809246	African Politics	3	3-0
PSYCH 20809249	Educational Psychology	3	3-0
SOC 20809252	Race and Ethnicity in the U.S.	3	3-0
SOC 20809253	Sociology of Gender	3	3-0
SOC 20809255	Introduction to LGBTQ+ Studies	3	3-0

SOCSCI 20809257	Gender and Women's Studies-Study Abroad Experience	1	1-0
SOCSCI 20809269	Energy, Environment and Society	3	3-0
SOC 20809277	Couple Relationships	1	1-0
ANTHRO 20809280	General Anthropology	3	3-0
ANTHRO 20809281	Archaeology & Prehistoric World	3	3-0
SOCSCI 20809282	Introduction to Hmong American Studies	3	3-0
ANTHRO 20809283	Cultural Anthropology & Human Diversity	3	3-0
ANTHRO 20809285	Anthropology of Myth, Magic, and Religion	3	3-0
SOCSCI 20809290	Introduction to African Studies	3	3-0
SOC 20809291	Technology and Society	3	3-0
SOCSCI 20809294	Introduction to Data Analytics	3	3-0
SOC 20809295	Victimology	3	3-0
PSYCH 20809296	Cognitive Psychology	3	3-0
PSYCH 20809297	Sport and Performance Psychology	3	3-0
COLLSUCC 20890200	College Success	3	3-0
COLLSUCC 20890201	Study Skills	1	1-0
COLLSUCC 20890202	Career Development	1	1-0

Ethnic Studies (One course)
Course may also count toward Humanities/Fine Arts, Social Science, or Electives.

SOC 10809172	Introduction to Diversity Studies	3	3-0
ENGLISH 20801207	World Indigenous Literatures	3	3-0
ENGLISH 20801212	Ethnic Literature	3	3-0
ENGLISH 20801213	Native American Literature	3	3-0
ENGLISH 20801214	African American Literature	3	3-0
ENGLISH 20801222	U.S. Latino Literature	3	3-0
HISTORY 20803214	Indigenous American History	3	3-0
HISTORY 20803238	US Latino History	3	3-0
HISTORY 20803240	African American History	3	3-0
HISTORY 20803244	Asian American History	3	3-0
MUSIC 20805229	Blues to Hip-Hop: Black American Music	3	3-0
SOCSCI 20809215	Education in a Pluralistic Society	3	3-0
SOC 20809252	Race and Ethnicity in the U.S.	3	3-0
SOCSCI 20809282	Introduction to Hmong American Studies	3	3-0
ANTHRO 20809283	Cultural Anthropology & Human Diversity	3	3-0

World Languages (One course)
May be met with one year in high school with a grade of "C" or better OR one semester in college.
College course may also count toward Humanities/Fine Arts or Electives.
If requirement was satisfied with high school courses, email: enrollmentservices@madisoncollege.edu.
See World Languages Courses under the Humanities and Fine Arts Requirement above.

Effective 2025-2026
Program Number: 208002-HE

University Transfer - Pre-major: Professional Health

An Associate in Science Degree

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
60 credits minimum to complete the program by satisfying the all requirements as defined.			
English and Speech (9 credits)			
Six credits must be in composition - English 1 and one other composition course. Three credits must be in public speaking.			
(Students should consult with an advisor to determine the best choice for their second composition course.)			
Composition Courses			
ENGLISH 20801201	English 1	3	3-0
ENGLISH 20801202	English 2	3	3-0
JOURNAL 20801245	Introduction to Journalism	3	3-0
JOURNAL 20801251	Introduction to Mass Communication	4	4-0
JOURNAL 20801256	Science Communication	3	3-0
Public Speaking Courses			
SPEECH 10801198	Speech	3	3-0
JOURNAL 20801269	On-Air Performance	3	2-2
SPEECH 20810202	Theory & Practice of Argumentation and Debate	3	3-0
SPEECH 20810211	Oral Interpretation	3	3-0
Kinesiology/Health/Wellness (1 credit)			
Completion of one of the listed courses is required.			
Kinesiology Courses			
KINES 20807210	Conditioning/Weight Training	1	0-2
KINES 20807214	Pickleball	1	0-2
KINES 20807215	Walking & Running for Fitness	1	0-2
KINES 20807219	Introduction to Kinesiology	2	2-0
KINES 20807223	Beginning Volleyball	1	0-2
KINES 20807245	Social Dance	1	0-2
KINES 20807248	Ballet	1	0-2
KINES 20807250	Badminton	1	0-2
KINES 20807254	Beginning Yoga	1	0-2
KINES 20807255	Prev/Care Athletic Injuries	2	1-2
KINES 20807258	First Aid and CPR	2	2-0
KINES 20807264	Intermediate Yoga	1	0-2
KINES 20807265	Beginning Soccer	1	0-2
KINES 20807266	Wellness Today	3	2-2
KINES 20807267	Health & Fitness for Life	2	2-0
KINES 20807268	Blueprint for Healthy Living	2	1.5-1
KINES 20807269	Stress Management Foundations	1	0-2
KINES 20807272	Fall Team Sports	1	0-2
KINES 20807273	Spring Team Sports	1	0-2

KINES 20807274	Roll, Release & Recover	1	0-2
KINES 20807280	Movement Education & Skills Lab	1	0-2

Humanities/Fine Arts (6 credits)

Completion of courses from two disciplines is required. Choose courses from the following disciplines: art, art history, drama, film, literature, music, philosophy, world languages, writing and communication, and interdisciplinary humanities. Any remaining credits to fulfill the requirement can be selected from any Humanities and Fine Arts courses offered within the AS degree.

Art Courses			
ART 20815201	Basic Design	3	0-6
ART 20815205	Drawing 1	3	0-6
ART 20815215	Drawing 2	3	0-6
ART 20815219	Life Drawing 1	3	0-6
ART 20815220	Life Drawing 2	3	0-6
ART 20815221	Life Drawing 3	3	0-6
ART 20815227	2D Studio Independent Study	3	0-6
ART 20815233	Digital Photography Independent Study	3	0-6
ART 20815235	Creative Photography	3	0-6
ART 20815239	Digital Photography	3	0-6
ART 20815241	Painting 1	3	0-6
ART 20815242	Painting 2	3	0-6
ART 20815253	Jewelry 1	3	0-6
ART 20815254	Jewelry 2	3	0-6
ART 20815290	Ceramics 1	3	0-6
ART 20815291	Ceramics 2	3	0-6
ART 20815293	Ceramics Independent Study	3	0-6
ART 20815294	Ceramics Sculpture 1	3	0-6
ART 20815295	Ceramics Sculpture 2	3	0-6
ART 20815296	Ceramics Firing Techniques/Alternative Methods	3	0-6
ART 20815299	Ceramics Firing Techniques 2	3	0-6
Art History Courses			
ARTHIST 20815200	Art History: Ancient to Medieval	3	3-0
ARTHIST 20815210	Art History: Renaissance to Modern	3	3-0
ARTHIST 20815211	Art History: Women In Art	3	3-0
ARTHIST 20815228	Art History: Global Arts	3	3-0
Drama Courses			
DRAMA 20810230	Intro To Theatre	3	3-0
DRAMA 20810235	Stagecraft 1	3	3-0
DRAMA 20810238	Cultural Diversity in Contemporary American Theater	3	3-0
DRAMA 20810246	Stage Technology Practicum	1	0-2
DRAMA 20810260	Drama Practicum (1cr)	1	0-2
DRAMA 20810261	Drama Practicum (2cr)	2	0-4
DRAMA 20810262	Acting 1	3	3-0
DRAMA 20810263	Acting 2	3	3-0
DRAMA 20810270	Movement Theory & Training for Actors	1	0-2
Film Courses			
FILM 20810250	Introduction to Film	3	3-0
FILM 20810254	History Of World Cinema	3	3-0
Literature Courses			
ENGLISH 20801204	Introduction to Literature	3	3-0
ENGLISH 20801207	World Indigenous Literatures	3	3-0
ENGLISH 20801209	Literature and Science	3	3-0
ENGLISH 20801211	Queer Literature	3	3-0
ENGLISH 20801212	Ethnic Literature	3	3-0
ENGLISH 20801213	Native American Literature	3	3-0
ENGLISH 20801214	African American Literature	3	3-0
ENGLISH 20801221	Literature and Popular Culture	3	3-0
ENGLISH 20801222	U.S. Latino Literature	3	3-0
ENGLISH 20801226	Introduction to African Literature	3	3-0
ENGLISH 20801227	Children's Literature	3	3-0
ENGLISH 20801229	Contemporary Literature	3	3-0

ENGLISH 20801230	Classical Mythology	3	3-0
ENGLISH 20801250	Women In Literature	3	3-0
Music Courses			
MUSIC 20805202	Choir 1	1	0-2
MUSIC 20805203	Choir 2	1	0-2
MUSIC 20805205	Class Voice	1	0-2
MUSIC 20805207	World Music	3	3-0
MUSIC 20805211	Orchestra 1	1	0-2
MUSIC 20805212	Orchestra 2	1	0-2
MUSIC 20805216	Concert Band 1	1	0-2
MUSIC 20805217	Concert Band 2	1	0-2
MUSIC 20805219	Jazz Ensemble 1	1	0-2
MUSIC 20805220	Jazz Ensemble 2	1	0-2
MUSIC 20805221	Class Piano 1	1	0-2
MUSIC 20805227	Music Appreciation	3	3-0
MUSIC 20805229	Blues to Hip-Hop: Black American Music	3	3-0
MUSIC 20805260	Music Theory Fundamentals	3	3-0
MUSIC 20805278	Hist Pop/Rock Music	3	3-0
MUSIC 20805279	World Drumming Ensemble 1	1	0-2
MUSIC 20805280	World Drumming Ensemble 2	1	0-2
MUSIC 20805281	World Drumming Ensemble 3	1	0-2
MUSIC 20805282	World Drumming Ensemble 4	1	0-2
Philosophy Courses			
PHILOS 10809103	Think Critically & Creatively	3	3-0
PHILOS 10809166	Intro to Ethics: Theory & App	3	3-0
PHILOS 20809260	Intro Philosophy	3	3-0
PHILOS 20809261	Elementary Logic	4	4-0
PHILOS 20809262	Contemporary Moral Issues	3	3-0
PHILOS 20809263	East/West World View	3	3-0
PHILOS 20809264	Introduction to Logic and Critical Thinking	3	3-0
PHILOS 20809266	Ethics In Medicine	3	3-0
PHILOS 20809276	Business Ethics	3	3-0
World Languages Courses			
SPANISH 20802211	Spanish 1	4	3-2
SPANISH 20802212	Spanish 2	4	3-2
SPANISH 20802213	Spanish 3	4	3-2
SPANISH 20802214	Spanish 4	4	3-2
SPANISH 20802215	Spanish 5	3	3-0
SPANISH 20802218	Spanish 6	3	3-0
FRENCH 20802221	French 1	4	3-2
FRENCH 20802222	French 2	4	3-2
FRENCH 20802223	French 3	4	3-2
FRENCH 20802224	French 4	4	3-2
FRENCH 20802226	French 5	3	3-0
CHINESE 20802230	Intro to Mandarin Chinese 1	3	2-2
CHINESE 20802231	Intro to Mandarin Chinese 2	3	2-2
CHINESE 20802232	Mandarin Chinese 3	3	3-0
ARABIC 20802240	Intro to Modern Arabic 1	3	2-2
ARABIC 20802241	Intro to Modern Arabic 2	3	2-2
Writing and Communication Courses			
ENGLISH 10801195	Written Communication	3	3-0
COMM 10801196	Oral/Interpersonal Communication	3	3-0
ENGLISH 10801197	Technical Reporting	3	3-0
SPEECH 10801198	Speech	3	3-0
ENGLISH 20801202	English 2	3	3-0
ENGLISH 20801240	Creative Writing	3	3-0
ENGLISH 20801241	Creative Writing/Fiction	3	3-0
ENGLISH 20801243	Creative Writing/Poetry	3	3-0
ENGLISH 20801244	Creative Writing/Non Fiction	3	3-0
JOURNAL 20801245	Introduction to Journalism	3	3-0

ENGLISH 20801249	Film Writing	3	3-0
JOURNAL 20801251	Introduction to Mass Communication	4	4-0
JOURNAL 20801252	World Issues Journalism	3	3-0
JOURNAL 20801253	Photo/Video Storytelling	3	2-2
JOURNAL 20801256	Science Communication	3	3-0
JOURNAL 20801262	Social Media Writing	3	3-0
JOURNAL 20801269	On-Air Performance	3	2-2
JOURNAL 20801271	Journalism Practicum 1	1	0-2
JOURNAL 20801272	Journalism Practicum 2	1	0-2
JOURNAL 20801273	Journalism Practicum 3	2	0-4
JOURNAL 20801274	Journalism Practicum 4	2	0-4
COMM 20810200	Introduction to Communication Studies	3	3-0
SPEECH 20810202	Argumentation and Debate	3	3-0
COMM 20810205	Small Group & Interpersonal Communications	3	3-0
COMM 20810206	Difficult Conversations	3	3-0
SPEECH 20810211	Oral Interpretation	3	3-0
Interdisciplinary Humanit es Courses			
HUMAN 20801254	Media and Democracy	3	3-0
HUMAN 20802261	Intercultural Experience Practicum 1	1	0-2
HUMAN 20802262	Intercultural Experience Practicum 2	1	0-2
HUMAN 20802280	Global Studies Capstone	2	0-0
HUMAN 20810267	Leadership As An Art	3	3-0

Mathematics and Statistics (7 credits)

Basic Statistics is required. Select one additional mathematics course at the level of College Algebra or higher.

Required Statistics course

MATH 20804240	Basic Statistics	4	3-2

Select at least one of the following Mathematics courses.

Mathematics Courses

MATH 20804210	Math for Elementary Teachers	3	3-0
MATH 20804211	Quantitative Reasoning	3	2-2
MATH 20804212	College Algebra	3	2-2
MATH 20804213	Trigonometry	3	2-2
MATH 20804214	Math for Elementary Teachers 2	3	3-0
MATH 20804220	Finite Math	3	2-2
MATH 20804221	Calculus Methods for Business and Social Sciences I	5	5-0
MATH 20804229	Precalculus	5	5-0
MATH 20804231	Calculus and Analytic Geometry 1	5	5-0
MATH 20804232	Calculus and Analytic Geometry 2	5	5-0
MATH 20804233	Calculus 3	5	5-0
MATH 20804241	Introduction to Engineering Statistics	3	2-2
MATH 20804255	Techniques in Ordinary Differential Equations	3	1-4
MATH 20804256	Elementary Matrix and Linear Algebra	3	1-4
MATH 20804265	Introduction to Discrete Mathematics	3	2-2

Natural Science (15 credits)

Required Chemistry Course

CHEM 20806209	College Chemistry 1	5	3-4

Complete both courses from one of the biology options:

Consult with your advisor to determine which set of courses are best for your intended transfer program (major and transfer institution).

Biology Option 1:

BIOLOGY 20806271	Cellular and Molecular Biology	5	3-4
BIOLOGY 20806272	Organismal Biology	5	3-4

Biology Option 2

BIOLOGY 20806203	Introductory Zoology	5	4-2
BIOLOGY 20806215	Botany	5	3-4

Social Science (6 credits)

Required Psychology Course

PSYCH 10809198	Introduction to Psychology	3	3-0
Completion of three additional credits from one additional discipline is required. Choose courses from the following disciplines: anthropology, economics, education, history, political science, sociology, and interdisciplinary social science.			
Anthropology Courses			
ANTHRO 20809280	General Anthropology	3	3-0
ANTHRO 20809281	Archaeology & Prehistoric World	3	3-0
ANTHRO 20809283	Cultural Anthropology & Human Diversity	3	3-0
SOCSCI 20809290	Introduction to African Studies	3	3-0
Economics Courses			
ECON 10809195	Economics	3	3-0
ECON 20809211	Macroeconomics	3	3-0
ECON 20809212	Microeconomics	3	3-0
ECON 20809214	International Economics	3	3-0
ECON 20809228	Environmental Economics	3	3-0
Education Courses			
EDFOUND 20809216	Introduction to Education and Teaching	3	3-0
EDFOUND 20809217	Introduction to Special Education	3	3-0
History Courses			
HISTORY 20803201	Twentieth-Century America	3	3-0
HISTORY 20803204	Early Modern European History	3	3-0
HISTORY 20803205	European History Since 1815	3	3-0
HISTORY 20803208	History from Pharaohs to Popes	3	3-0
HISTORY 20803211	Early US History	3	3-0
HISTORY 20803212	Modern US History	3	3-0
HISTORY 20803214	Indigenous American History	3	3-0
HISTORY 20803224	Early African History	3	3-0
HISTORY 20803225	20th-Century World History	3	3-0
HISTORY 20803233	Gender and Women's History in Cultural Representations	3	3-0
HISTORY 20803238	US Latino History	3	3-0
HISTORY 20803240	African American History	3	3-0
HISTORY 20803242	History Nazi Germany 1919-1945	3	3-0
HISTORY 20803243	Modern African History	3	3-0
HISTORY 20803244	Asian American History	3	3-0
Political Science Courses			
POLISCI 10809122	Introduction to American Government	3	3-0
POLISCI 20809218	Law and Society	3	3-0
POLISCI 20809222	State and Local Government	3	3-0
POLISCI 20809223	International Relations	3	3-0
POLISCI 20809227	Political Theory	3	3-0
POLISCI 20809242	Public Policy	3	3-0
POLISCI 20809245	Gender and Politics	3	3-0
POLISCI 20809246	African Politics	3	3-0
Sociology Courses			
SOC 10809172	Introduction to Diversity Studies	3	3-0
SOC 10809196	Introduction to Sociology	3	3-0
SOC 10809197	Contemporary American Society	3	3-0
SOC 20809204	Sociology of Relationships and Families	3	3-0
SOC 20809207	Criminology	3	3-0
SOC 20809209	Sociology of Mental Health	3	3-0
SOC 20809253	Sociology of Gender	3	3-0
SOC 20809255	Introduction to LGBTQ+ Studies	3	3-0
SOC 20809277	Couple Relationships	1	1-0
SOC 20809291	Technology and Society	3	3-0
SOC 20809295	Victimology	3	3-0
Interdisciplinary Social Science Courses			
SOCSCI 20809206	Introduction to Women's Studies	3	3-0
SOCSCI 20809215	Education in a Pluralistic Society	3	3-0
SOCSCI 20809230	Statistics for the Social Sciences	4	4-0
SOCSCI 20809257	Gender and Women's Studies-Study Abroad Experience	1	1-0

SOCSCI 20809269	Energy, Environment and Society	3	3-0
SOCSCI 20809282	Introduction to Hmong American Studies	3	3-0
SOCSCI 20809290	Introduction to African and Global Black Studies	3	3-0
SOCSCI 20809294	Introduction to Data Analytics	3	3-0

Electives (16 credits)
Professional Health Elective Choices:

Consult with your advisor to determine which courses are best for your intended transfer program (major and transfer institution).

BIOLOGY 10806177	General Anatomy & Physiology	4	3-2
BIOLOGY 10806179	Advanced Anatomy & Physiology	4	3-2
BIOLOGY 10806197	Microbiology-University Medical	4	2-4
POLISCI 10809122	Introduction to American Government	3	3-0
PSYCH 10809159	Abnormal Psychology	3	3-0
PSYCH 10809188	Developmental Psychology	3	3-0
SOC 10809196	Introduction to Sociology	3	3-0
SPANISH 20802211	Spanish 1	4	3-2
SPANISH 20802212	Spanish 2	4	3-2
SPANISH 20802213	Spanish 3	4	3-2
SPANISH 20802214	Spanish 4	4	3-2
SPANISH 20802215	Spanish 5	3	3-0
FRENCH 20802221	French 1	4	3-2
FRENCH 20802222	French 2	4	3-2
FRENCH 20802223	French 3	4	3-2
FRENCH 20802224	French 4	4	3-2
CHINESE 20802230	Intro to Mandarin Chinese 1	3	2-2
CHINESE 20802231	Intro to Mandarin Chinese 2	3	2-2
CHINESE 20802232	Mandarin Chinese 3	3	3-0
ARABIC 20802240	Intro to Modern Arabic 1	3	2-2
ARABIC 20802241	Intro to Modern Arabic 2	3	2-2
MATH 20804213	Trigonometry	3	2-2
MATH 20804231	Calculus and Analytic Geometry 1	5	5-0
MATH 20804232	Calculus and Analytic Geometry 2	5	5-0
MATH 20804233	Calculus 3	5	5-0
BIOLOGY 20806203	Introductory Zoology	5	4-2
BIOLOGY 20806204	Biological Greek and Latin Terminology	3	3-0
BIOLOGY 20806207	Anatomy and Physiology 1	4	3-2
BIOLOGY 20806208	Anatomy and Physiology 2	4	3-2
CHEM 20806212	College Chemistry 2	5	3-4
BIOLOGY 20806215	Botany	5	3-4
PHYSICS 20806221	University Physics 1	5	3-4
PHYSICS 20806222	University Physics 2	5	3-4
PHYSICS 20806223	University Physics 1-Calculus-Based	5	2-6
PHYSICS 20806224	University Physics 2-Calculus Based	5	2-6
NATSCI 20806260	Professional Health Careers Seminar: Planning Your Future	1	0.5-1
BIOLOGY 20806274	General Microbiology	5	3-4
BIOLOGY 20806276	Principles of Genetics	4	3-2
KINES 20807219	Introduction to Kinesiology	2	2-0
KINES 20807255	Prev/Care Athletic Injuries	2	1-2
CHEM 20806256	Organic Chemistry 1 Lecture	4	4-0
CHEM 20806257	Organic Chemistry 2 Lecture	4	4-0
KINES 20807258	First Aid and CPR	2	2-0
CHEM 20806266	Organic Chemistry 1 Lab	2	0-4
CHEM 20806267	Organic Chemistry 2 Lab	2	0-4
BIOLOGY 20806271	Cellular and Molecular Biology	5	3-4
BIOLOGY 20806272	Organismal Biology	5	3-4
ECON 20809211	Macro Economics	3	3-0
ECON 20809212	Micro Economics	3	3-0

PSYCH 20809233	Developmental Psychology	3	3-0
PSYCH 20809237	Abnormal Psychology	3	3-0
PSYCH 20809239	Child Human Development	3	3-0
PHILOS 20809266	Ethics In Medicine	3	3-0

Ethnic Studies (One course)
Course may also count toward Humanities/Fine Arts, Social Science, or Electives

SOC 10809172	Introduction to Diversity Studies	3	3-0
ENGLISH 20801207	World Indigenous Literatures	3	3-0
ENGLISH 20801212	Ethnic Literature	3	3-0
ENGLISH 20801213	Native American Literature	3	3-0
ENGLISH 20801214	African American Literature	3	3-0
ENGLISH 20801222	U.S. Latino Literature	3	3-0
HISTORY 20803214	Indigenous American History	3	3-0
HISTORY 20803238	US Latino History	3	3-0
HISTORY 20803240	African American History	3	3-0
HISTORY 20803244	Asian American History	3	3-0
MUSIC 20805229	Blues to Hip-Hop: Black American Music	3	3-0
SOCSCI 20809215	Education in a Pluralistic Society	3	3-0
SOC 20809252	Race and Ethnicity in the U.S.	3	3-0
SOCSCI 20809282	Introduction to Hmong American Studies	3	3-0
ANTHRO 20809283	Cultural Anthropology & Human Diversity	3	3-0

World Languages (One course)
May be met with one year in high school with a grade of "C" or better OR one semester in college.
College courses may also count toward Humanities/Fine Arts or Electives.
If requirement was satisfied with high school courses, email: enrollmentservices@madisoncollege.edu.
See World Languages Courses under the Humanities and Fine Arts Requirement above.

Effective 2025-2026
Program Number: 208002-S

University Transfer - Pre-major: Science, Math, and Technology

An Associate in Science Degree

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
60 credits minimum to complete the program by satisfying the all requirements as defined.			
English and Speech (9 credits)			
Six credits must be in composition - English 1 and one other composition course. Three credits must be in public speaking.			
(Students should consult with an advisor to determine the best choice for their second composition course.)			
Composition Courses			
ENGLISH 20801201	English 1	3	3-0
ENGLISH 20801202	English 2	3	3-0
JOURNAL 20801245	Introduction to Journalism	3	3-0
JOURNAL 20801251	Introduction to Mass Communication	4	4-0
JOURNAL 20801256	Science Communication	3	3-0
Public Speaking Courses			
SPEECH 10801198	Speech	3	3-0
JOURNAL 20801269	On-Air Performance	3	2-2
SPEECH 20810202	Theory & Practice of Argumentation and Debate	3	3-0
SPEECH 20810211	Oral Interpretation	3	3-0
Kinesiology/Health/Wellness (1 credit)			
Completion of one of the listed courses is required.			
Kinesiology Courses			
KINES 20807210	Conditioning/Weight Training	1	0-2
KINES 20807214	Pickleball	1	0-2
KINES 20807215	Walking & Running for Fitness	1	0-2
KINES 20807219	Introduction to Kinesiology	2	2-0
KINES 20807223	Beginning Volleyball	1	0-2
KINES 20807245	Social Dance	1	0-2
KINES 20807248	Ballet	1	0-2
KINES 20807250	Badminton	1	0-2
KINES 20807254	Beginning Yoga	1	0-2
KINES 20807255	Prev/Care Athletic Injuries	2	1-2
KINES 20807258	First Aid and CPR	2	2-0
KINES 20807264	Intermediate Yoga	1	0-2
KINES 20807265	Beginning Soccer	1	0-2
KINES 20807266	Wellness Today	3	2-2
KINES 20807267	Health & Fitness for Life	2	2-0
KINES 20807268	Blueprint for Healthy Living	2	1.5-1
KINES 20807269	Stress Management Foundations	1	0-2
KINES 20807272	Fall Team Sports	1	0-2
KINES 20807273	Spring Team Sports	1	0-2

KINES 20807274	Roll, Release & Recover	1	0-2
KINES 20807280	Movement Education & Skills Lab	1	0-2
Humanities/Fine Arts (6 credits)			
Completion of courses from two disciplines is required. Choose courses from the following disciplines: art, art history, drama, film, literature, music, philosophy, world languages, writing and communication, and interdisciplinary humanities. Any remaining credits to fulfill the requirement can be selected from any Humanities and Fine Arts courses offered within the AS degree.			
Art Courses			
ART 20815201	Basic Design	3	0-6
ART 20815205	Drawing 1	3	0-6
ART 20815215	Drawing 2	3	0-6
ART 20815219	Life Drawing 1	3	0-6
ART 20815220	Life Drawing 2	3	0-6
ART 20815221	Life Drawing 3	3	0-6
ART 20815227	2D Studio Independent Study	3	0-6
ART 20815233	Digital Photography Independent Study	3	0-6
ART 20815235	Creative Photography	3	0-6
ART 20815239	Digital Photography	3	0-6
ART 20815241	Painting 1	3	0-6
ART 20815242	Painting 2	3	0-6
ART 20815253	Jewelry 1	3	0-6
ART 20815254	Jewelry 2	3	0-6
ART 20815290	Ceramics 1	3	0-6
ART 20815291	Ceramics 2	3	0-6
ART 20815293	Ceramics Independent Study	3	0-6
ART 20815294	Ceramics Sculpture 1	3	0-6
ART 20815295	Ceramics Sculpture 2	3	0-6
ART 20815296	Ceramics Firing Techniques/Alternative Methods	3	0-6
ART 20815299	Ceramics Firing Techniques 2	3	0-6
Art History			
ARTHIST 20815200	Art History: Ancient to Medieval	3	3-0
ARTHIST 20815210	Art History: Renaissance to Modern	3	3-0
ARTHIST 20815211	Art History: Women In Art	3	3-0
ARTHIST 20815228	Art History: Global Arts	3	3-0
Drama Courses			
DRAMA 20810230	Intro To Theatre	3	3-0
DRAMA 20810235	Stagecraft 1	3	3-0
DRAMA 20810238	Cultural Diversity in Contemporary American Theater	3	3-0
DRAMA 20810246	Stage Technology Practicum	1	0-2
DRAMA 20810260	Drama Practicum (1cr)	1	0-2
DRAMA 20810261	Drama Practicum (2cr)	2	0-4
DRAMA 20810262	Acting 1	3	3-0
DRAMA 20810263	Acting 2	3	3-0
DRAMA 20810270	Movement Theory & Training for Actors	1	0-2
Film			
FILM 20810250	Introduction to Film	3	3-0
FILM 20810254	History Of World Cinema	3	3-0
Literature Courses			
ENGLISH 20801204	Introduction to Literature	3	3-0
ENGLISH 20801207	World Indigenous Literatures	3	3-0
ENGLISH 20801209	Literature and Science	3	3-0
ENGLISH 20801211	Queer Literature	3	3-0
ENGLISH 20801212	Ethnic Literature	3	3-0
ENGLISH 20801213	Native American Literature	3	3-0
ENGLISH 20801214	African American Literature	3	3-0
ENGLISH 20801221	Literature and Popular Culture	3	3-0
ENGLISH 20801222	U.S. Latino Literature	3	3-0
ENGLISH 20801226	Introduction to African Literature	3	3-0
ENGLISH 20801227	Children's Literature	3	3-0
ENGLISH 20801229	Contemporary Literature	3	3-0

ENGLISH 20801230	Classical Mythology	3	3-0
ENGLISH 20801250	Women In Literature	3	3-0
Music Courses			
MUSIC 20805202	Choir 1	1	0-2
MUSIC 20805203	Choir 2	1	0-2
MUSIC 20805205	Class Voice	1	0-2
MUSIC 20805207	World Music	3	3-0
MUSIC 20805211	Orchestra 1	1	0-2
MUSIC 20805212	Orchestra 2	1	0-2
MUSIC 20805216	Concert Band 1	1	0-2
MUSIC 20805217	Concert Band 2	1	0-2
MUSIC 20805219	Jazz Ensemble 1	1	0-2
MUSIC 20805220	Jazz Ensemble 2	1	0-2
MUSIC 20805221	Class Piano 1	1	0-2
MUSIC 20805227	Music Appreciation	3	3-0
MUSIC 20805229	Blues to Hip-Hop: Black American Music	3	3-0
MUSIC 20805260	Music Theory Fundamentals	3	3-0
MUSIC 20805278	Hist Pop/Rock Music	3	3-0
MUSIC 20805279	World Drumming Ensemble 1	1	0-2
MUSIC 20805280	World Drumming Ensemble 2	1	0-2
MUSIC 20805281	World Drumming Ensemble 3	1	0-2
MUSIC 20805282	World Drumming Ensemble 4	1	0-2
Philosophy Courses			
PHILOS 10809103	Think Critically & Creatively	3	3-0
PHILOS 10809166	Intro to Ethics: Theory & App	3	3-0
PHILOS 20809260	Intro Philosophy	3	3-0
PHILOS 20809261	Elementary Logic	4	4-0
PHILOS 20809262	Contemporary Moral Issues	3	3-0
PHILOS 20809263	East/West World View	3	3-0
PHILOS 20809264	Introduction to Logic and Critical Thinking	3	3-0
PHILOS 20809266	Ethics In Medicine	3	3-0
PHILOS 20809276	Business Ethics	3	3-0
World Languages Courses			
SPANISH 20802211	Spanish 1	4	3-2
SPANISH 20802212	Spanish 2	4	3-2
SPANISH 20802213	Spanish 3	4	3-2
SPANISH 20802214	Spanish 4	4	3-2
SPANISH 20802215	Spanish 5	3	3-0
SPANISH 20802218	Spanish 6	3	3-0
FRENCH 20802221	French 1	4	3-2
FRENCH 20802222	French 2	4	3-2
FRENCH 20802223	French 3	4	3-2
FRENCH 20802224	French 4	4	3-2
FRENCH 20802226	French 5	3	3-0
CHINESE 20802230	Intro to Mandarin Chinese 1	3	2-2
CHINESE 20802231	Intro to Mandarin Chinese 2	3	2-2
CHINESE 20802232	Mandarin Chinese 3	3	3-0
ARABIC 20802240	Intro to Modern Arabic 1	3	2-2
ARABIC 20802241	Intro to Modern Arabic 2	3	2-2
Writing and Communication Courses			
ENGLISH 10801195	Written Communication	3	3-0
COMM 10801196	Oral/Interpersonal Communication	3	3-0
ENGLISH 10801197	Technical Reporting	3	3-0
SPEECH 10801198	Speech	3	3-0
ENGLISH 20801202	English 2	3	3-0
ENGLISH 20801240	Creative Writing	3	3-0
ENGLISH 20801241	Creative Writing/Fiction	3	3-0
ENGLISH 20801243	Creative Writing/Poetry	3	3-0
ENGLISH 20801244	Creative Writing/Non Fiction	3	3-0
JOURNAL 20801245	Introduction to Journalism	3	3-0

ENGLISH 20801249	Film Writing	3	3-0
JOURNAL 20801251	Introduction to Mass Communication	4	4-0
JOURNAL 20801252	World Issues Journalism	3	3-0
JOURNAL 20801253	Photo/Video Storytelling	3	2-2
JOURNAL 20801256	Science Communication	3	3-0
JOURNAL 20801262	Social Media Writing	3	3-0
JOURNAL 20801269	On-Air Performance	3	2-2
JOURNAL 20801271	Journalism Practicum 1	1	0-2
JOURNAL 20801272	Journalism Practicum 2	1	0-2
JOURNAL 20801273	Journalism Practicum 3	2	0-4
JOURNAL 20801274	Journalism Practicum 4	2	0-4
COMM 20810200	Introduction to Communication Studies	3	3-0
SPEECH 20810202	Argumentation and Debate	3	3-0
COMM 20810205	Small Group & Interpersonal Communications	3	3-0
COMM 20810206	Difficult Conversations	3	3-0
SPEECH 20810211	Oral Interpretation	3	3-0
Interdisciplinary Humanit es Courses			
HUMAN 20801254	Media and Democracy	3	3-0
HUMAN 20802261	Intercultural Experience Practicum 1	1	0-2
HUMAN 20802262	Intercultural Experience Practicum 2	1	0-2
HUMAN 20802280	Global Studies Capstone	2	0-0
HUMAN 20810267	Leadership As An Art	3	3-0

Mathematics and Natural Science (20 credits)

Select one mathematics course at the level of College Algebra or higher. Select one biological science course and one physical science course. Both courses must include a laboratory. Remaining credits to fulfill the requirement can be selected from any mathematics or natural science courses offered within the AS degree.

Mathematics Courses			
MATH 20804210	Math for Elementary Teachers	3	3-0
MATH 20804211	Quantitative Reasoning	3	2-2
MATH 20804212	College Algebra	3	2-2
MATH 20804213	Trigonometry	3	2-2
MATH 20804214	Math for Elementary Teachers 2	3	3-0
MATH 20804220	Finite Math	3	2-2
MATH 20804221	Calculus Methods for Business and Social Sciences I	5	5-0
MATH 20804229	Precalculus	5	5-0
MATH 20804231	Calculus and Analytic Geometry 1	5	5-0
MATH 20804232	Calculus and Analytic Geometry 2	5	5-0
MATH 20804233	Calculus 3	5	5-0
MATH 20804240	Basic Statistics	4	3-2
MATH 20804241	Introduction to Engineering Statistics	3	2-2
MATH 20804255	Techniques in Ordinary Differential Equations	3	1-4
MATH 20804256	Elementary Matrix and Linear Algebra	3	1-4
MATH 20804265	Introduction to Discrete Mathematics	3	2-2
Biological Science Lab Courses			
BIOLOGY 10806105	Principles of Animal Biology	4	3-2
BIOLOGY 10806177	Gen Anatomy & Physiology	4	3-2
BIOLOGY 10806179	Advanced Anatomy & Physiology	4	3-2
BIOLOGY 20806203	Introductory Zoology	5	4-2
BIOLOGY 20806207	Anatomy and Physiology 1	4	3-2
BIOLOGY 20806208	Anatomy and Physiology 2	4	3-2
BIOLOGY 20806215	Botany	5	3-4
BIOLOGY 20806226	Introduction To Human Biology	5	4-2
BIOLOGY 20806238	Plants, Parasites and People Lab	1	0-2
BIOLOGY 20806271	Cellular and Molecular Biology	5	3-4
BIOLOGY 20806272	Organismal Biology	5	3-4
BIOLOGY 20806274	General Microbiology	5	3-4
BIOLOGY 20806276	Principles of Genetics	4	3-2
BIOLOGY 20806283	General Ecology Lab	1	0-2

BIOLOGY 20806286	Environmental Science	4	2-4
Biological Science Cours s without Lab			
BIOLOGY 20806204	Biological Greek and Latin Terminology	3	3-0
BIOLOGY 20806237	Plants, Parasites, and People	3	3-0
BIOLOGY 20806261	Human Nutrition	3	3-0
BIOLOGY 20806280	Environmental Issues	3	3-0
BIOLOGY 20806281	Biodiversity and Conservation Biology	3	3-0
BIOLOGY 20806282	General Ecology	3	3-0
Physical Science Lab Courses			
CHEM 10806134	General Chemistry	4	3-2
PHYSICS 10806139	Survey of Physics	3	1-4
CHEM 10806186	Intro to Biochemistry	4	3-2
CHEM 20806209	College Chemistry 1	5	3-4
CHEM 20806212	College Chemistry 2	5	3-4
PHYSICS 20806221	University Physics 1	5	3-4
PHYSICS 20806222	University Physics 2	5	3-4
PHYSICS 20806223	University Physics 1-Calculus-Based	5	2-6
PHYSICS 20806224	University Physics 2-Calculus Based	5	2-6
GENENG 20806234	Mechanics of Materials	4	3-2
PHYSGEO 20806236	Introduction to Geographic Information Systems and Science	4	3-2
PHYSICS 20806239	Modern Physics Lab	1	0-2
EARTHSCI 20806244	General Geology	4	3-2
EARTHSCI 20806247	Earth Science Lab	1	0-2
WEATHER 20806248	Weather and Climate Laboratory	1	0-2
EARTHSCI 20806249	Geologic Evolution of the Earth	4	3-2
EARTHSCI 20806251	Undergraduate Geology Field Experience	2	0-4
ASTRON 20806253	Astronomy: The Solar System	4	3-2
ASTRON 20806254	Astronomy: Stars & Galaxies	4	3-2
CHEM 20806259	Chemistry for Science and Engineering	5	4-2
CHEM 20806266	Organic Chemistry 1 Lab	2	0-4
CHEM 20806267	Organic Chemistry 2 Lab	2	0-4
PHYSICS 20806296	Advanced Solar Photovoltaic Technology	1	0-2
Physical Science Courses without Lab			
PHYSICS 20806220	Physics of Everyday Life	3	3-0
GENENG 20806232	Statics	3	2-2
GENENG 20806233	Dynamics	3	3-0
PHYSICS 20806235	Modern Physics	3	3-0
EARTHSCI 20806241	Earth Science	3	3-0
WEATHER 20806245	Weather And Climate	3	3-0
EARTHSCI 20806246	Survey of Oceanography	3	3-0
WEATHER 20806250	Climate and Climate Change	3	3-0
EARTHSCI 20806252	Natural Hazards	3	3-0
WEATHER 20806255	Aviation Meteorology	3	3-0
CHEM 20806256	Organic Chemistry 1 Lecture	4	4-0
CHEM 20806257	Organic Chemistry 2 Lecture	4	4-0
PHYSICS 20806291	Introduction to Renewable Energy	3	3-0
PHYSICS 20806292	Solar Photovoltaic Technology	3	3-0
Additional courses availa le to meet 20 credit mathematics and natural science requirement.			
BUSADM 10102104	Business Statistics	3	3-0
MATH 10804114	College Technical Math 1B	2	2-0
MATH 10804115	College Technical Math 1	5	5-0
MATH 10804116	College Technical Math 2	4	4-0
MATH 20804200	Principles Of Geometry	3	1-4
MATH 20804201	Intermediate Algebra	4	3-2
MATH 20804202	Intermediate Algebra Part 1	3	2-2
MATH 20804203	Intermediate Algebra Part 2	3	2-2
COMPSCI 20804215	Computer Science 1	3	2-2
COMPSCI 20804216	Computer Science 2	3	2-2
COMPSCI 20804217	Introduction to Programming in Python	3	2-2

COMPSCI 20804270	Data Structures and Algorithms	4	4-0
PHYSICS 20806293	Solar Photovoltaic Installation Lab	1	0-2
Social Science (6 credits)			
Completion of courses from at least two disciplines is required. Choose courses from the following disciplines: anthropology, economics, history, political science, psychology, sociology, and interdisciplinary social science.			
Anthropology Courses			
ANTHRO 20809280	General Anthropology	3	3-0
ANTHRO 20809281	Archaeology & Prehistoric World	3	3-0
ANTHRO 20809283	Cultural Anthropology & Human Diversity	3	3-0
ANTHRO 20809285	Anthropology of Myth, Magic, and Religion	3	3-0
Economics Courses			
ECON 10809195	Economics	3	3-0
ECON 20809211	Macroeconomics	3	3-0
ECON 20809212	Microeconomics	3	3-0
ECON 20809214	International Economics	3	3-0
ECON 20809228	Environmental Economics	3	3-0
Education Courses			
EDFOUND 20809216	Introduction to Education and Teaching	3	3-0
EDFOUND 20809217	Introduction to Special Education	3	3-0
History Courses			
HISTORY 20803201	Twentieth-Century America	3	3-0
HISTORY 20803204	Early Modern European History	3	3-0
HISTORY 20803205	European History Since 1815	3	3-0
HISTORY 20803208	History from Pharaohs to Popes	3	3-0
HISTORY 20803211	Early US History	3	3-0
HISTORY 20803212	Modern US History	3	3-0
HISTORY 20803214	Indigenous American History	3	3-0
HISTORY 20803224	Early African History	3	3-0
HISTORY 20803225	20th-Century World History	3	3-0
HISTORY 20803233	Gender and Women's History in Cultural Representations	3	3-0
HISTORY 20803238	US Latino History	3	3-0
HISTORY 20803240	African American History	3	3-0
HISTORY 20803242	History Nazi Germany 1919-1945	3	3-0
HISTORY 20803243	Modern African History	3	3-0
HISTORY 20803244	Asian American History	3	3-0
Political Science Courses			
POLISCI 10809122	Intro to Amer Government	3	3-0
POLISCI 20809218	Law and Society	3	3-0
POLISCI 20809222	State and Local Government	3	3-0
POLISCI 20809223	International Relations	3	3-0
POLISCI 20809227	Political Theory	3	3-0
POLISCI 20809242	Public Policy	3	3-0
POLISCI 20809245	Gender and Politics	3	3-0
POLISCI 20809246	African Politics	3	3-0
Psychology Courses			
PSYCH 10809159	Abnormal Psychology	3	3-0
PSYCH 10809188	Developmental Psychology	3	3-0
PSYCH 10809198	Introduction to Psychology	3	3-0
PSYCH 10809199	Psychology Of Human Relations	3	3-0
PSYCH 20809201	Human Sexuality	3	3-0
PSYCH 20809210	Psychology of Men	3	3-0
PSYCH 20809225	Social Psychology	3	3-0
PSYCH 20809233	Developmental Psychology	3	3-0
PSYCH 20809237	Abnormal Psychology	3	3-0
PSYCH 20809239	Child Human Development	3	3-0
PSYCH 20809249	Educational Psychology	3	3-0
PSYCH 20809296	Cognitive Psychology	3	3-0
PSYCH 20809297	Sport and Performance Psychology	3	3-0
Sociology Courses			

SOC 10809172	Introduction to Diversity Studies	3	3-0
SOC 10809196	Introduction to Sociology	3	3-0
SOC 10809197	Contemporary American Society	3	3-0
SOC 20809204	Sociology of Relationships and Families	3	3-0
SOC 20809207	Criminology	3	3-0
SOC 20809209	Sociology of Mental Health	3	3-0
SOC 20809252	Race and Ethnicity in the U.S.	3	3-0
SOC 20809253	Sociology of Gender	3	3-0
SOC 20809255	Introduction to LGBTQ+ Studies	3	3-0
SOC 20809277	Couple Relationships	1	1-0
SOC 20809291	Technology and Society	3	3-0
SOC 20809295	Victimology	3	3-0
Interdisciplinary Social Sc ence Courses			
SOCSCI 20809206	Introduction to Women's Studies	3	3-0
SOCSCI 20809215	Education in a Pluralistic Society	3	3-0
SOCSCI 20809230	Statistics for the Social Sciences	4	4-0
SOCSCI 20809257	Gender and Women's Studies-Study Abroad Experience	1	1-0
SOCSCI 20809269	Energy, Environment and Society	3	3-0
SOCSCI 20809282	Introduction to Hmong American Studies	3	3-0
SOCSCI 20809290	Introduction to African Studies	3	3-0
SOCSCI 20809294	Introduction to Data Analytics	3	3-0

Electives (18 credits)

Select any courses offered within the University Transfer program or from the list of additional electives below. Most Internships and Honors Project credits may also be applied (20-code courses only).

Consult with your advisor to determine which courses are best for your intended transfer program (major and transfer institution).

BIOTECH 10007124	Molecular Biology 1	3	0-6
BIOTECH 10007125	Research Methods in Molecular Biology	3	0-6
ACCTG 10101111	Accounting 1 - Principles	4	4-0
ACCTG 10101113	Accounting 2 - Principles	4	4-0
ACCTG 10101118	Management Accounting	4	4-0
ACCTG 10101125	Cost Management	4	4-0
ACCTG 10101244	Financial Accounting	4	4-0
BUSADM 10102104	Business Statistics	3	3-0
BUSADM 10102134	Introduction to Business	3	3-0
BUSADM 10102143	Management Techniques	3	3-0
BUSADM 10102160	Business Law 1	3	3-0
MKTG 10104102	Marketing Principles	3	3-0
FINANCE 10114130	Personal Finance	3	3-0
HRMGT 10116145	Introduction to Human Resources	3	3-0
GRDSGN 10201177	Web Design	3	0-6
GRDSGN 10201181	Introduction to Design Software	3	0-6
EARLYCHL 10307110	ECE: Social Studies, Art, and Music	3	2-2
EARLYCHL 10307112	ECE: STEM (Science, Technology, Engineering, and Mathematics)	3	1-0
EARLYCHL 10307148	ECE: Foundations of Early Childhood Education	3	3-0
EARLYCHL 10307179	ECE: Child Development	3	3-0
EARLYCHL 10307187	ECE: Children with Differing Abilities	3	3-0
MTLFAB 10457100	Metal Repair Techniques	2	0-4
INDMECH 10462106	Mechanisms 1 for Industry	1	0-2
INDMECH 10462323	Controls 1	2	0-4
FOUNHLTH 10501101	Medical Terminology	3	3-0
CRIMJUST 10504900	Introduction to Criminal Justice	3	3-0
AUTOTEC 10602100	Automotive Fundamentals	2	0-4
AUTOTEC 10602101	Automotive Service Procedures	3	0-6
GENENG 10605270	AC/DC Circuit Techniques and Principles	3	1-4
GENENG 10606156	Statics and Mechanics 2: Centroids, Inertia, and Friction	1	1-0
MECTEC 10606160	Fundamentals of Manufacturing/Engineering Materials	2	1-2
MECTEC 10606161	Manufacturing Processes	2	1-2

MECTEC 10606186	Engineering Technology Applications	3	0-6
GENENG 10606231	Introductory Engineering Graphics	3	1-4
GENENG 10606232	Reverse Engineering and SolidWorks Assemblies	1	0-2
EMTEC 10620100	Introduction to PLCs	1	0-2
GENENG 10662121	Circuit Modeling 1	3	1-4
GENENG 10662221	Circuit Modeling 2	4	2-4
GENENG 10662252	Introduction to Computer Engineering	3	1-4
BIOLOGY 20806219	Biology for Innovators	1	0-2
NATSCI 20806260	Professional Health Careers Seminar: Planning Your Future	1	0.5-1
NATSCI 20806264	STEM Seminar	1	1-0
GENENG 20806294	Engineering Seminar	1	0.5-1
GENENG 20806295	Introduction to Engineering	3	1-4
SOCSCI 20809213	Exploring Business Majors Seminar	1	0.5-1
COLLSUCC 20890200	College Success	3	3-0
COLLSUCC 20890201	Study Skills	1	1-0
COLLSUCC 20890202	Career Development	1	1-0

Ethnic Studies (One course)

Course may also count toward Humanities/Fine Arts, Social Science, or Electives.

SOC 10809172	Introduction to Diversity Studies	3	3-0
ENGLISH 20801207	World Indigenous Literatures	3	3-0
ENGLISH 20801212	Ethnic Literature	3	3-0
ENGLISH 20801213	Native American Literature	3	3-0
ENGLISH 20801214	African American Literature	3	3-0
ENGLISH 20801222	U.S. Latino Literature	3	3-0
HISTORY 20803214	Indigenous American History	3	3-0
HISTORY 20803238	US Latino History	3	3-0
HISTORY 20803240	African American History	3	3-0
HISTORY 20803244	Asian American History	3	3-0
MUSIC 20805229	Blues to Hip-Hop: Black American Music	3	3-0
SOCSCI 20809215	Education in a Pluralistic Society	3	3-0
SOC 20809252	Race and Ethnicity in the U.S.	3	3-0
SOCSCI 20809282	Introduction to Hmong American Studies	3	3-0
ANTHRO 20809283	Cultural Anthropology & Human Diversity	3	3-0

World Languages (One course)

May be met with one year in high school with a grade of "C" or better OR one semester in college.
College course may also count toward Humanities/Fine Arts or Electives.
If requirement was satisfied with high school courses, email: enrollmentservices@madisoncollege.edu.
See World Languages Courses under the Humanities and Fine Arts Requirement above.

Effective 2025-2026
Program Number: 208001-SS

University Transfer - Pre-major: Social Sciences

An Associate in Arts Degree

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
60 credits minimum to complete the program by satisfying the all requirements as defined.			
English and Speech (9 credits)			
Six credits must be in composition - English 1 and one other composition course. Three credits must be in public speaking.			
(Students should consult with an advisor to determine the best choice for their second composition course.)			
Composition Courses			
ENGLISH 20801201	English 1	3	3-0
ENGLISH 20801202	English 2	3	3-0
JOURNAL 20801245	Introduction to Journalism	3	3-0
JOURNAL 20801251	Introduction to Mass Communication	4	4-0
JOURNAL 20801256	Science Communication	3	3-0
Public Speaking Courses			
SPEECH 10801198	Speech	3	3-0
JOURNAL 20801269	On-Air Performance	3	2-2
SPEECH 20810202	Theory & Practice of Argumentation and Debate	3	3-0
SPEECH 20810211	Oral Interpretation	3	3-0
Kinesiology/Health/Wellness (1 credit)			
Completion of one of the listed courses is required.			
Kinesiology Courses			
KINES 20807210	Conditioning/Weight Training	1	0-2
KINES 20807214	Pickleball	1	0-2
KINES 20807215	Walking & Running for Fitness	1	0-2
KINES 20807219	Introduction to Kinesiology	2	2-0
KINES 20807223	Beginning Volleyball	1	0-2
KINES 20807245	Social Dance	1	0-2
KINES 20807248	Ballet	1	0-2
KINES 20807250	Badminton	1	0-2
KINES 20807254	Beginning Yoga	1	0-2
KINES 20807255	Prev/Care Athletic Injuries	2	1-2
KINES 20807258	First Aid and CPR	2	2-0
KINES 20807264	Intermediate Yoga	1	0-2
KINES 20807265	Beginning Soccer	1	0-2
KINES 20807266	Wellness Today	3	2-2
KINES 20807267	Health & Fitness for Life	2	2-0
KINES 20807268	Blueprint for Healthy Living	2	1.5-1
KINES 20807269	Stress Management Foundations	1	0-2
KINES 20807272	Fall Team Sports	1	0-2
KINES 20807273	Spring Team Sports	1	0-2

KINES 20807274	Roll, Release & Recover	1	0-2
KINES 20807280	Movement Education & Skills Lab	1	0-2
Humanities/Fine Arts (12 credits)			
Completion of courses from three disciplines is required. Choose courses from the following disciplines: art, art history, drama, film, literature, music, philosophy, world languages, writing and communication, and interdisciplinary humanities. Remaining credits to fulfill the requirement can be selected from any Humanities and Fine Arts courses offered within the AA degree.			
Art Courses			
ART 20815201	Basic Design	3	0-6
ART 20815205	Drawing 1	3	0-6
ART 20815215	Drawing 2	3	0-6
ART 20815219	Life Drawing 1	3	0-6
ART 20815220	Life Drawing 2	3	0-6
ART 20815221	Life Drawing 3	3	0-6
ART 20815227	2D Studio Independent Study	3	0-6
ART 20815233	Digital Photography Independent Study	3	0-6
ART 20815235	Creative Photography	3	0-6
ART 20815239	Digital Photography	3	0-6
ART 20815241	Painting 1	3	0-6
ART 20815242	Painting 2	3	0-6
ART 20815253	Jewelry 1	3	0-6
ART 20815254	Jewelry 2	3	0-6
ART 20815290	Ceramics 1	3	0-6
ART 20815291	Ceramics 2	3	0-6
ART 20815293	Ceramics Independent Study	3	0-6
ART 20815294	Ceramics Sculpture 1	3	0-6
ART 20815295	Ceramics Sculpture 2	3	0-6
ART 20815296	Ceramics Firing Techniques/Alternative Methods	3	0-6
ART 20815299	Ceramics Firing Techniques 2	3	0-6
Art History Courses			
ARTHIST 20815200	Art History: Ancient to Medieval	3	3-0
ARTHIST 20815210	Art History: Renaissance to Modern	3	3-0
ARTHIST 20815211	Art History: Women In Art	3	3-0
ARTHIST 20815228	Art History: Global Arts	3	3-0
Drama Courses			
DRAMA 20810230	Intro To Theatre	3	3-0
DRAMA 20810235	Stagecraft 1	3	3-0
DRAMA 20810238	Cultural Diversity in Contemporary American Theater	3	3-0
DRAMA 20810246	Stage Technology Practicum	1	0-2
DRAMA 20810260	Drama Practicum (1 cr)	1	0-2
DRAMA 20810261	Drama Practicum (2cr)	2	0-4
DRAMA 20810262	Acting 1	3	3-0
DRAMA 20810263	Acting 2	3	3-0
DRAMA 20810270	Movement Theory & Training for Actors	1	0-2
Film Courses			
FILM 20810250	Introduction to Film	3	3-0
FILM 20810254	History Of World Cinema	3	3-0
Literature Courses			
ENGLISH 20801204	Introduction to Literature	3	3-0
ENGLISH 20801207	World Indigenous Literatures	3	3-0
ENGLISH 20801209	Literature and Science	3	3-0
ENGLISH 20801211	Queer Literature	3	3-0
ENGLISH 20801212	Ethnic Literature	3	3-0
ENGLISH 20801213	Native American Literature	3	3-0
ENGLISH 20801214	African American Literature	3	3-0
ENGLISH 20801221	Literature and Popular Culture	3	3-0
ENGLISH 20801222	U.S. Latino Literature	3	3-0
ENGLISH 20801226	Introduction to African Literature	3	3-0
ENGLISH 20801227	Children's Literature	3	3-0
ENGLISH 20801229	Contemporary Literature	3	3-0

ENGLISH 20801230	Classical Mythology	3	3-0
ENGLISH 20801250	Women In Literature	3	3-0
Music Courses			
MUSIC 20805202	Choir 1	1	0-2
MUSIC 20805203	Choir 2	1	0-2
MUSIC 20805205	Class Voice	1	0-2
MUSIC 20805207	World Music	3	3-0
MUSIC 20805211	Orchestra 1	1	0-2
MUSIC 20805212	Orchestra 2	1	0-2
MUSIC 20805216	Concert Band 1	1	0-2
MUSIC 20805217	Concert Band 2	1	0-2
MUSIC 20805219	Jazz Ensemble 1	1	0-2
MUSIC 20805220	Jazz Ensemble 2	1	0-2
MUSIC 20805221	Class Piano 1	1	0-2
MUSIC 20805227	Music Appreciation	3	3-0
MUSIC 20805229	Blues to Hip-Hop: Black American Music	3	3-0
MUSIC 20805260	Music Theory Fundamentals	3	3-0
MUSIC 20805278	Hist Pop/Rock Music	3	3-0
MUSIC 20805279	World Drumming Ensemble 1	1	0-2
MUSIC 20805280	World Drumming Ensemble 2	1	0-2
MUSIC 20805281	World Drumming Ensemble 3	1	0-2
MUSIC 20805282	World Drumming Ensemble 4	1	0-2
Philosophy Courses			
PHILOS 10809103	Think Critically & Creatively	3	3-0
PHILOS 10809166	Introduction to Ethics: Theory and Applications	3	3-0
PHILOS 20809260	Intro Philosophy	3	3-0
PHILOS 20809261	Elementary Logic	4	4-0
PHILOS 20809262	Contemporary Moral Issues	3	3-0
PHILOS 20809263	East/West World View	3	3-0
PHILOS 20809264	Introduction to Logic and Critical Thinking	3	3-0
PHILOS 20809266	Ethics In Medicine	3	3-0
PHILOS 20809276	Business Ethics	3	3-0
World Language Courses			
SPANISH 20802211	Spanish 1	4	3-2
SPANISH 20802212	Spanish 2	4	3-2
SPANISH 20802213	Spanish 3	4	3-2
SPANISH 20802214	Spanish 4	4	3-2
SPANISH 20802215	Spanish 5	3	3-0
SPANISH 20802218	Spanish 6	3	3-0
FRENCH 20802221	French 1	4	3-2
FRENCH 20802222	French 2	4	3-2
FRENCH 20802223	French 3	4	3-2
FRENCH 20802224	French 4	4	3-2
FRENCH 20802226	French 5	3	3-0
CHINESE 20802230	Intro to Mandarin Chinese 1	3	2-2
CHINESE 20802231	Intro to Mandarin Chinese 2	3	2-2
CHINESE 20802232	Mandarin Chinese 3	3	3-0
ARABIC 20802240	Intro to Modern Arabic 1	3	2-2
ARABIC 20802241	Intro to Modern Arabic 2	3	2-2
Writing and Communication Courses			
ENGLISH 10801195	Written Communication	3	3-0
COMM 10801196	Oral/Interpersonal Communication	3	3-0
ENGLISH 10801197	Technical Reporting	3	3-0
SPEECH 10801198	Speech	3	3-0
ENGLISH 20801202	English 2	3	3-0
ENGLISH 20801240	Creative Writing	3	3-0
ENGLISH 20801241	Creative Writing/Fiction	3	3-0
ENGLISH 20801243	Creative Writing/Poetry	3	3-0
ENGLISH 20801244	Creative Writing/Non Fiction	3	3-0
JOURNAL 20801245	Introduction to Journalism	3	3-0

ENGLISH 20801249	Film Writing	3	3-0
JOURNAL 20801251	Introduction to Mass Communication	4	4-0
JOURNAL 20801252	World Issues Journalism	3	3-0
JOURNAL 20801253	Photo/Video Storytelling	3	2-2
JOURNAL 20801256	Science Communication	3	3-0
JOURNAL 20801262	Social Media Writing	3	3-0
JOURNAL 20801269	On-Air Performance	3	2-2
JOURNAL 20801271	Journalism Practicum 1	1	0-2
JOURNAL 20801272	Journalism Practicum 2	1	0-2
JOURNAL 20801273	Journalism Practicum 3	2	0-4
JOURNAL 20801274	Journalism Practicum 4	2	0-4
COMM 20810200	Introduction to Communication Studies	3	3-0
SPEECH 20810202	Argumentation and Debate	3	3-0
COMM 20810205	Small Group & Interpersonal Communications	3	3-0
COMM 20810206	Difficult Conversations	3	3-0
SPEECH 20810211	Oral Interpretation	3	3-0
Interdisciplinary Humanit es Courses			
HUMAN 20801254	Media and Democracy	3	3-0
HUMAN 20802261	Intercultural Experience Practicum 1	1	0-2
HUMAN 20802262	Intercultural Experience Practicum 2	1	0-2
HUMAN 20802280	Global Studies Capstone	2	0-0
HUMAN 20810267	Leadership As An Art	3	3-0

Mathematics and Natural Science (10 credits)

Select one mathematics course at the level of Intermediate Algebra or higher. Select one biological science course and one physical science course; one of the courses must include a laboratory. If lab is a stand-alone course, the associated lecture component is also required.

Mathematics Courses			
MATH 20804201	Intermediate Algebra	4	3-2
MATH 20804203	Intermediate Algebra Part 2	3	2-2
MATH 20804210	Math for Elementary Teachers	3	3-0
MATH 20804211	Quantitative Reasoning	3	2-2
MATH 20804212	College Algebra	3	2-2
MATH 20804213	Trigonometry	3	2-2
MATH 20804214	Math for Elementary Teachers 2	3	3-0
COMPSCI 20804215	Computer Science 1	3	2-2
COMPSCI 20804216	Computer Science 2	3	2-2
MATH 20804220	Finite Math	3	2-2
MATH 20804221	Calculus Methods for Business and Social Sciences I	5	5-0
MATH 20804229	Precalculus	5	5-0
MATH 20804231	Calculus and Analytic Geometry 1	5	5-0
MATH 20804232	Calculus and Analytic Geometry 2	5	5-0
MATH 20804233	Calculus 3	5	5-0
MATH 20804240	Basic Statistics	4	3-2
MATH 20804241	Introduction to Engineering Statistics	3	2-2
MATH 20804255	Techniques in Ordinary Differential Equations	3	1-4
MATH 20804256	Elementary Matrix and Linear Algebra	3	1-4
MATH 20804265	Introduction to Discrete Mathematics	3	2-2
COMPSCI 20804270	Data Structures and Algorithms	4	4-0
Biological Science Lab Courses			
BIOLOGY 10806105	Principles of Animal Biology	4	3-2
BIOLOGY 10806177	Gen Anatomy & Physiology	4	3-2
BIOLOGY 10806179	Advanced Anatomy & Physiology	4	3-2
BIOLOGY 10806197	Microbiology-University Medical	4	2-4
BIOLOGY 20806203	Introductory Zoology	5	4-2
BIOLOGY 20806207	Anatomy and Physiology 1	4	3-2
BIOLOGY 20806208	Anatomy and Physiology 2	4	3-2
BIOLOGY 20806215	Botany	5	3-4
BIOLOGY 20806226	Introduction To Human Biology	5	4-2
BIOLOGY 20806238	Plants, Parasites and People Lab	1	0-2

BIOLOGY 20806271	Cellular and Molecular Biology	5	3-4
BIOLOGY 20806272	Organismal Biology	5	3-4
BIOLOGY 20806274	General Microbiology	5	3-4
BIOLOGY 20806276	Principles of Genetics	4	3-2
BIOLOGY 20806283	General Ecology Lab	1	0-2
BIOLOGY 20806286	Environmental Science	4	2-4
Biological Science Cours s - without Lab			
BIOLOGY 20806204	Biological Greek and Latin Terminology	3	3-0
BIOLOGY 20806237	Plants, Parasites, and People	3	3-0
BIOLOGY 20806261	Human Nutrition	3	3-0
BIOLOGY 20806280	Environmental Issues	3	3-0
BIOLOGY 20806281	Biodiversity and Conservation Biology	3	3-0
BIOLOGY 20806282	General Ecology	3	3-0
Physical Science Lab Courses			
CHEM 10806134	General Chemistry	4	3-2
PHYSICS 10806139	Survey of Physics	3	1-4
PHYSICS 10806154	General Physics 1	4	3-2
CHEM 10806186	Intro to Biochemistry	4	3-2
CHEM 20806209	College Chemistry 1	5	3-4
CHEM 20806212	College Chemistry 2	5	3-4
PHYSICS 20806221	University Physics 1	5	3-4
PHYSICS 20806222	University Physics 2	5	3-4
PHYSICS 20806223	University Physics 1-Calculus-Based	5	2-6
PHYSICS 20806224	University Physics 2-Calculus Based	5	2-6
GENENG 20806234	Mechanics of Materials	4	3-2
PHYSGEO 20806236	Introduction to Geographic Information Systems and Science	4	3-2
PHYSICS 20806239	Modern Physics Lab	1	0-2
EARTHSCI 20806244	General Geology	4	3-2
EARTHSCI 20806247	Earth Science Lab	1	0-2
WEATHER 20806248	Weather and Climate Laboratory	1	0-2
EARTHSCI 20806249	Geologic Evolution of the Earth	4	3-2
EARTHSCI 20806251	Undergraduate Geology Field Experience	2	0-4
ASTRON 20806253	Astronomy: The Solar System	4	3-2
ASTRON 20806254	Astronomy: Stars & Galaxies	4	3-2
CHEM 20806259	Chemistry for Science and Engineering	5	4-2
CHEM 20806266	Organic Chemistry 1 Lab	2	0-4
CHEM 20806267	Organic Chemistry 2 Lab	2	0-4
PHYSICS 20806296	Advanced Solar Photovoltaic Technology	1	0-2
Physical Science Courses - without Lab			
PHYSICS 20806220	Physics of Everyday Life	3	3-0
GENENG 20806232	Statics	3	2-2
GENENG 20806233	Dynamics	3	3-0
PHYSICS 20806235	Modern Physics	3	3-0
EARTHSCI 20806241	Earth Science	3	3-0
WEATHER 20806245	Weather And Climate	3	3-0
EARTHSCI 20806246	Survey of Oceanography	3	3-0
WEATHER 20806250	Climate and Climate Change	3	3-0
EARTHSCI 20806252	Natural Hazards	3	3-0
WEATHER 20806255	Aviation Meteorology	3	3-0
CHEM 20806256	Organic Chemistry 1 Lecture	4	4-0
CHEM 20806257	Organic Chemistry 2 Lecture	4	4-0
PHYSICS 20806287	Special Topics: Energy Storage	2	1.5-1
PHYSICS 20806291	Introduction to Renewable Energy	3	3-0
PHYSICS 20806292	Solar Photovoltaic Technology	3	3-0

Statistics (Recommendation)
Completion of one course is recommended.
Consult with your advisor to determine which statistics course is best for your intended transfer program (major and transfer institution).
Option 1: Statistics for Social Sciences

**Preferred statistics recommendation. Recommended for all Social Science Pre-major students, especially those interested in Psychology and Sociology paths. Course may count towards the social science requirement or electives.*			
SOCSCI 20809230	Statistics for the Social Sciences	4	4-0
Option 2: Basic Statistics			
**Acceptable alternate to statistics recommendation. Course may count towards the math/science requirement or electives.*			
MATH 20804240	Basic Statistics	4	3-2
Social Science (12 credits)			
Required Options: Completion of two of these courses is required.			
POLISCI 10809122	Intro to Amer Government	3	3-0
SOC 10809196	Introduction to Sociology	3	3-0
PSYCH 10809198	Introduction to Psychology	3	3-0
ECON 20809211	Macroeconomics	3	3-0
ANTHRO 20809280	General Anthropology	3	3-0
Completion of courses from at least one additional disciplines is required. Choose courses from the following disciplines: anthropology, economics, education, history, political science, psychology, sociology, and interdisciplinary social science. Remaining credits to fulfill the requirement can be selected from any social science courses offered within the AA degree..			
Anthropology Courses			
ANTHRO 20809280	General Anthropology	3	3-0
ANTHRO 20809281	Archaeology & Prehistoric World	3	3-0
ANTHRO 20809283	Cultural Anthropology & Human Diversity	3	3-0
ANTHRO 20809285	Anthropology of Myth, Magic, and Religion	3	3-0
Economics Courses			
ECON 10809195	Economics	3	3-0
ECON 20809211	Macroeconomics	3	3-0
ECON 20809212	Microeconomics	3	3-0
ECON 20809214	International Economics	3	3-0
ECON 20809228	Environmental Economics	3	3-0
Education Courses			
EDFOUND 20809216	Introduction to Education and Teaching	3	3-0
EDFOUND 20809217	Introduction to Special Education	3	3-0
History Courses			
HISTORY 20803201	Twentieth-Century America	3	3-0
HISTORY 20803204	Early Modern European History	3	3-0
HISTORY 20803205	European History Since 1815	3	3-0
HISTORY 20803208	History from Pharaohs to Popes	3	3-0
HISTORY 20803211	Early US History	3	3-0
HISTORY 20803212	Modern US History	3	3-0
HISTORY 20803214	Indigenous American History	3	3-0
HISTORY 20803224	Early African History	3	3-0
HISTORY 20803225	20th-Century World History	3	3-0
HISTORY 20803233	Gender and Women's History in Cultural Representations	3	3-0
HISTORY 20803238	US Latino History	3	3-0
HISTORY 20803240	African American History	3	3-0
HISTORY 20803242	History Nazi Germany 1919-1945	3	3-0
HISTORY 20803243	Modern African History	3	3-0
HISTORY 20803244	Asian American History	3	3-0
Political Science Courses			
POLISCI 10809122	Intro to Amer Government	3	3-0
POLISCI 20809218	Law and Society	3	3-0
POLISCI 20809222	State and Local Government	3	3-0
POLISCI 20809223	International Relations	3	3-0
POLISCI 20809227	Political Theory	3	3-0
POLISCI 20809242	Public Policy	3	3-0
POLISCI 20809245	Gender and Politics	3	3-0
POLISCI 20809246	African Politics	3	3-0
Psychology Courses			
PSYCH 10809159	Abnormal Psychology	3	3-0

PSYCH 10809188	Developmental Psychology	3	3-0
PSYCH 10809198	Introduction to Psychology	3	3-0
PSYCH 10809199	Psychology Of Human Relations	3	3-0
PSYCH 20809201	Human Sexuality	3	3-0
PSYCH 20809210	Psychology of Men	3	3-0
PSYCH 20809225	Social Psychology	3	3-0
PSYCH 20809233	Developmental Psychology	3	3-0
PSYCH 20809237	Abnormal Psychology	3	3-0
PSYCH 20809239	Child Human Development	3	3-0
PSYCH 20809249	Educational Psychology	3	3-0
PSYCH 20809296	Cognitive Psychology	3	3-0
PSYCH 20809297	Sport and Performance Psychology	3	3-0
Sociology Courses			
SOC 10809172	Introduction to Diversity Studies	3	3-0
SOC 10809196	Introduction to Sociology	3	3-0
SOC 10809197	Contemporary American Society	3	3-0
SOC 20809204	Sociology of Relationships and Families	3	3-0
SOC 20809207	Criminology	3	3-0
SOC 20809209	Sociology of Mental Health	3	3-0
SOC 20809252	Race and Ethnicity in the U.S.	3	3-0
SOC 20809253	Sociology of Gender	3	3-0
SOC 20809255	Introduction to LGBTQ+ Studies	3	3-0
SOC 20809277	Couple Relationships	1	1-0
SOC 20809291	Technology and Society	3	3-0
SOC 20809295	Victimology	3	3-0
Interdisciplinary Social Science Courses			
SOCSCI 20809206	Introduction to Women's Studies	3	3-0
SOCSCI 20809215	Education in a Pluralistic Society	3	3-0
SOCSCI 20809230	Statistics for the Social Sciences	4	4-0
SOCSCI 20809257	Gender and Women's Studies-Study Abroad Experience	1	1-0
SOCSCI 20809269	Energy, Environment and Society	3	3-0
SOCSCI 20809282	Introduction to Hmong American Studies	3	3-0
SOCSCI 20809290	Introduction to African Studies	3	3-0
SOCSCI 20809294	Introduction to Data Analytics	3	3-0

Electives (16 credits)

Select any courses offered within the University Transfer program or from the list of additional electives below. Most Internships and Honors Project credits may also be applied (20-code courses only).

Consult with your advisor to determine which courses are best for your intended transfer institution and program.

BIOTECH 10007124	Molecular Biology 1	3	0-6
BIOTECH 10007125	Research Methods in Molecular Biology	3	0-6
ACCTG 10101111	Accounting 1 - Principles	4	4-0
ACCTG 10101113	Accounting 2 - Principles	4	4-0
ACCTG 10101118	Management Accounting	4	4-0
ACCTG 10101125	Cost Management	4	4-0
ACCTG 10101244	Financial Accounting	4	4-0
BUSADM 10102160	Business Law 1	3	3-0
BUSADM 10102104	Business Statistics	3	3-0
BUSADM 10102134	Introduction to Business	3	3-0
BUSADM 10102143	Management Techniques	3	3-0
MKTG 10104102	Marketing Principles	3	3-0
FINANCE 10114130	Personal Finance	3	3-0
HRMGT 10116145	Introduction to Human Resources	3	3-0
GRDSGN 10201177	Web Design	3	0-6
GRDSGN 10201181	Introduction to Design Software	3	0-6
EARLYCHL 10307110	ECE: Social Studies, Art, and Music	3	2-2
EARLYCHL 10307112	ECE: STEM (Science, Technology, Engineering, and Mathematics)	3	1-0
EARLYCHL 10307148	ECE: Foundations of Early Childhood Education	3	3-0

EARLYCHL 10307179	ECE: Child Development	3	3-0
EARLYCHL 10307187	ECE: Children with Differing Abilities	3	3-0
MTLFAB 10457100	Metal Repair Techniques	2	0-4
INDMECH 10462106	Mechanisms 1 for Industry	1	0-2
INDMECH 10462323	Controls 1	2	0-4
FOUNHLTH 10501101	Medical Terminology	3	3-0
CRIMJUST 10504900	Introduction to Criminal Justice	3	3-0
AUTOTEC 10602100	Automotive Fundamentals	2	0-4
AUTOTEC 10602101	Automotive Service Procedures	3	0-6
GENENG 10605270	AC/DC Circuit Techniques and Principles	3	1-4
GENENG 10606156	Statics and Mechanics 2: Centroids, Inertia, and Friction	1	1-0
MECTEC 10606160	Fundamentals of Manufacturing/Engineering Materials	2	1-2
MECTEC 10606161	Manufacturing Processes	2	1-2
MECTEC 10606186	Engineering Technology Applications	3	0-6
GENENG 10606231	Introductory Engineering Graphics	3	1-4
GENENG 10606232	Reverse Engineering and Solidworks Assemblies	1	0-2
EMTEC 10620100	Introduction to PLCs	1	0-2
GENENG 10662252	Introduction to Computer Engineering	3	1-4
GENENG 10662121	Circuit Modeling 1	3	1-4
GENENG 10662221	Circuit Modeling 2	4	2-4
MATH 10804114	College Technical Math 1B	2	2-0
MATH 10804115	College Technical Math 1	5	5-0
MATH 10804116	College Technical Math 2	4	4-0
MATH 20804200	Principles Of Geometry	3	1-4
MATH 20804202	Intermediate Algebra Part 1	3	2-2
COMPSCI 20804217	Introduction to Programming in Python	3	2-2
BIOLOGY 20806219	Biology for Innovators	1	0-2
NATSCI 20806260	Professional Health Careers Seminar: Planning Your Future	1	0.5-1
NATSCI 20806264	STEM Seminar	1	1-0
PHYSICS 20806293	Solar Photovoltaic Installation Lab	1	0-2
GENENG 20806295	Introduction to Engineering	3	1-4
GENENG 20806294	Engineering Seminar	1	0.5-1
SOCSCI 20809213	Exploring Business Majors Seminar	1	0.5-1
COLLSUCC 20890200	College Success	3	3-0
COLLSUCC 20890201	Study Skills	1	1-0
COLLSUCC 20890202	Career Development	1	1-0

Ethnic Studies (One course)

Course may also count toward Humanities/Fine Arts, Social Science, or Electives.

SOC 10809172	Introduction to Diversity Studies	3	3-0
ENGLISH 20801207	World Indigenous Literatures	3	3-0
ENGLISH 20801212	Ethnic Literature	3	3-0
ENGLISH 20801213	Native American Literature	3	3-0
ENGLISH 20801214	African American Literature	3	3-0
ENGLISH 20801222	U.S. Latino Literature	3	3-0
HISTORY 20803214	Indigenous American History	3	3-0
HISTORY 20803238	US Latino Histry	3	3-0
HISTORY 20803240	African American History	3	3-0
HISTORY 20803244	Asian American History	3	3-0
MUSIC 20805229	Blues to Hip-Hop: Black American Music	3	3-0
SOCSCI 20809215	Education in a Pluralistic Society	3	3-0
SOC 20809252	Race and Ethnicity in the U.S.	3	3-0
SOCSCI 20809282	Introduction to Hmong American Studies	3	3-0
ANTHRO 20809283	Cultural Anthropology & Human Diversity	3	3-0

World Languages (One course)

May be met with one year in high school with a grade of "C" or better OR one semester in college.
College courses may also count toward Humanities/Fine Arts or Electives.
Email enrollmentservices@madisoncollege.edu if requirement was satisfied with high school course work.
See World Language Courses under the Humanities and Fine Arts Requirement above.

Madison Area Technical College

User Experience and Interaction Design (UX/IxD)

An Associate in Applied Arts Degree

Effective 2025-2026
Program Number: 102016

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
GRDSGN 10201114	Introduction to Industry Applications	3	0-6
GRDSGN 10201163	UX Foundations	3	0-6
GRDSGN 10201166	UI Design	3	0-6
GRDSGN 10201168	Human Centered Design	2	2-0
GRDSGN 10201177	Web Design	3	0-6
ENGLISH 10801195	Written Communication	3	3-0
Second Semester			
MKTG 10104169	Digital Marketing	3	3-0
GRDSGN 10201156	Front-End Web Design	3	0-6
GRDSGN 10201178	Advanced UX/UI Design	3	0-6
GRDSGN 10201182	Advanced Design Software	3	0-6
COMM 10801196	Oral/Interpersonal Communication	3	3-0
Third Semester			
GRDSGN 10201132	Designing for Development	3	0-6
GRDSGN 10201158	Advanced Digital Design	2	0-4
GRDSGN 10201195	Advanced Digital Development	3	0-6
MATH 10804123	Math with Business Applications	3	3-0
ELECTIVE	Elective	3	0-0
Fourth Semester			
GRDSGN 10201162	Portfolio Preparation	2	0-4
GRDSGN 10201173	Project Management for Digital Designers	2	1-2
GRDSGN 10201185	User Experience and Interaction Design (UX/ID) Capstone	2	0-4
SOC 10809197	Contemporary American Society	3	3-0
PSYCH 10809199	Psychology Of Human Relations	3	3-0
ELECTIVE	Elective	3	0-0
Recommended Electives			
GRDSGN 10201121	Graphic Design Workshop	3	0-6
GRDSGN 10201151	Typography	3	0-6
VIDAUD 10206129	Motion Design	2	0-4
MKTG 10104102	Marketing Principles	3	3-0
MKTG 10104115	Capstone Campaign	3	3-0
ITPROG 10152119	Introduction to Programming with JavaScript	3	2-2
ADMINPRF 10106100	Mindset for Success	3	3-0

Effective 2025-2026
Program Number: 310913

Veterinary Assistant

A Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
Pre-Program			
BIOLOGY 10806105	Principles of Animal Biology	4	3-2
First Semester			
VETTECH 10091102	Intro to Veterinary Office Preparations and Procedures	2	2-0
VETTECH 10091107	Animal Disease 1	2	2-0
VETTECH 10091140	Animal Anatomy & Physiology 1	3	1-4
VETTECH 10091170	Veterinary Medical Terminology	2	2-0
VETTECH 10091171	Animal Care and Management 1	3	1-4
Second Semester			
VETTECH 10091108	Animal Disease 2	2	2-0
VETTECH 10091109	Pharmacology 1 - Animals	2	1-2
VETTECH 10091123	Lab Animal Science 1	2	0.5-3
VETTECH 10091134	Veterinary Assistant and Technician Preparation for Surgery	1	0-2
VETTECH 10091137	Veterinary Clinic Work Experience 1	2	0-0
VETTECH 10091172	Animal Care and Management 2	3	1-4

Effective 2025-2026
Program Number: 100911

Veterinary Technician

An Associate in Applied Science Degree

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
Pre-Program Courses			
BIOLOGY 10806105	Principles of Animal Biology	4	3-2
First Semester			
VETTECH 10091102	Intro to Veterinary Office Preparations and Procedures	2	2-0
VETTECH 10091107	Animal Disease 1	2	2-0
VETTECH 10091140	Animal Anatomy & Physiology 1	3	1-4
VETTECH 10091170	Veterinary Medical Terminology	2	2-0
VETTECH 10091171	Animal Care and Management 1	3	1-4
Second Semester			
VETTECH 10091108	Animal Disease 2	2	2-0
VETTECH 10091109	Pharmacology 1 - Animals	2	1-2
VETTECH 10091123	Lab Animal Science 1	2	0.5-3
VETTECH 10091134	Veterinary Assistant and Technician Preparation for Surgery	1	0-2
VETTECH 10091137	Veterinary Clinic Work Experience 1	2	0-0
VETTECH 10091172	Animal Care and Management 2	3	1-4
ENGLISH 10801195	Written Communication	3	3-0
Third Semester			
VETTECH 10091127	Surgical Nursing 1	3	1-4
VETTECH 10091128	Animal Nursing 1	2	0.5-3
VETTECH 10091153	Diagnostic Imaging	3	1-4
VETTECH 10091161	Veterinary Laboratory Procedures 1	4	1-6
COMM 10801196	Oral/Interpersonal Communication	3	3-0
Fourth Semester			
VETTECH 10091110	Pharmacology 2	2	1.5-1
VETTECH 10091122	Advanced Topics in Veterinary Medicine	1	1-0
VETTECH 10091138	Veterinary Clinic Work Experience 2	2	0-0
VETTECH 10091152	Surgical Nursing 2	3	1-4
VETTECH 10091162	Veterinary Laboratory Procedures 2	4	1-6
SOC 10809197	Contemporary American Society	3	3-0
PSYCH 10809199	Psychology Of Human Relations	3	3-0

Madison Area Technical College

Effective 2025-2026
Program Number: 102061

Video Audio Design

An Associate in Applied Arts Degree

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
GRDSGN 10201102	Design Fundamentals	3	0-6
PHOTO 10203130	Introduction to Photography and Video	2	0-4
VIDAUD 10206111	Story & Pre-Production	2	2-0
VIDAUD 10206112	Design for Video	3	0-6
VIDAUD 10206148	Lighting Techniques for Video Production	2	0-4
VIDAUD 10206181	Digital Color	2	0-4
Second Semester			
VIDAUD 10206129	Motion Design	2	0-4
VIDAUD 10206130	Video Production	3	0-6
VIDAUD 10206131	Audio Production	3	0-6
ENGLISH 10801195	Written Communication	3	3-0
MATH 10804123	Math with Business Applications	3	3-0
Third Semester			
VIDAUD 10206142	Advanced Video Production	3	0-6
VIDAUD 10206151	Advanced Audio Production	3	0-6
VIDAUD 10206162	Video Project Management	3	0-6
VIDAUD 10206191	Advanced Motion Design	3	2-2
COMM 10801196	Oral/Interpersonal Communication	3	3-0
Fourth Semester			
VIDAUD 10206128	Compositing and Special Effects	3	0-6
VIDAUD 10206140	Video Audio Design Portfolio	2	0-4
VIDAUD 10206194	Event Production	3	1-4
PSYCH 10809199	Psychology Of Human Relations	3	3-0
SOC 10809197	Contemporary American Society	3	3-0
	Elective	3	
Recommended Electives:			
VIDAUD 10206202	Introduction to Music Production	3	0-6
VIDAUD 10206153	Audio Project Management	3	2-2
GRADSGN 10201157	Social Media Concepting	3	0-6

Madison Area Technical College

Video Production

A Certificate

Effective 2025-2026

Program Number: 902061CERT

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
VIDAUD 10206130	Video Production	3	0-6
VIDAUD 10206111	Story & Pre-Production	2	2-0
VIDAUD 10206112	Design for Video	3	0-6
Second Semester			
VIDAUD 10206142	Advanced Video Production	3	0-6
VIDAUD 10206162	Video Project Management	3	0-6

Effective 2025-2026
Program Number: 908013CERT

Visual Storytelling

A Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
Required Courses			
PHOTO 10203130	Introduction to Photography and Video	2	0-4
VIDAUD 10206130	Video Production	3	0-6
JOURNAL 20801253	Photo/Video Storytelling	3	2-2
JOURNAL 20801262	Social Media Writing	3	3-0
JOURNAL 20801271	Journalism Practicum 1	1	0-2

Effective 2025-2026
Program Number: 908062CERT

Weather and Climate Sciences

A Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
Required Courses			
WEATHER 20806245	Weather And Climate	3	3-0
WEATHER 20806248	Weather and Climate Laboratory	1	0-2
WEATHER 20806250	Climate and Climate Change	3	3-0
Additional Course List			
Students must complete a minimum of 3 credits from the following:			
EARTHSCI 20806246	Survey of Oceanography	3	3-0
EARTHSCI 20806252	Natural Hazards	3	3-0
WEATHER 20806255	Aviation Meteorology	3	3-0

**Students may choose to complete an independent studies project/course with a related topic for up to 3 credits in place of one of the courses on this list.*
**Students with a GPA of 3.5 or higher may choose to complete an honors project in Meteorology for up to 3 credits in place of one of the courses on this list.*

Effective 2025-2026
Program Number: 102013

Web & Digital Media Design

An Associate in Applied Arts Degree

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
GRDSGN 10201102	Design Fundamentals	3	0-6
GRDSGN 10201103	Drawing Fundamentals	3	0-6
GRDSGN 10201136	Concept Development	2	0-4
GRDSGN 10201137	Survey of Design	1	1-0
GRDSGN 10201181	Introduction to Design Software	3	0-6
ENGLISH 10801195	Written Communication	3	3-0
MATH 10804123	Math with Business Applications	3	3-0
Second Semester			
GRDSGN 10201151	Typography	3	0-6
GRDSGN 10201163	UX Foundations	3	0-6
GRDSGN 10201166	UI Design	3	0-6
GRDSGN 10201168	Human Centered Design	2	2-0
GRDSGN 10201177	Web Design	3	0-6
COMM 10801196	Oral/Interpersonal Communication	3	3-0
Third Semester			
GRDSGN 10201121	Graphic Design Workshop	3	0-6
GRDSGN 10201156	Front-End Web Design	3	0-6
GRDSGN 10201157	Social Media Concepting	3	0-6
GRDSGN 10201178	Advanced UX/UI Design	3	0-6
VIDAUD 10206129	Motion Design	2	0-4
PSYCH 10809199	Psychology Of Human Relations	3	3-0
Fourth Semester			
GRDSGN 10201158	Advanced Digital Design	2	0-4
GRDSGN 10201162	Portfolio Preparation	2	0-4
GRDSGN 10201189	Web Design Project Management	3	0-6
GRDSGN 10201195	Advanced Digital Development	3	0-6
SOC 10809197	Contemporary American Society	3	3-0
	Elective	3	
Recommended Electives			
ITPROG 10152119	Introduction to Programming with JavaScript	3	2-2
GRDSGN 10201153	Integrated Design	2	0-4
GRDSGN 10201183	Electronic Illustration	2	0-4
GRDSGN 10201184	Advanced Design & Layout	2	0-4

Effective 2025-2026
Program Number: 902011CERT

Web & Interactive Design

A Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
MKTG 10104169	Digital Marketing	3	3-0
Required Courses			
GRDSGN 10201156	Front-End Web Design	3	0-6
GRDSGN 10201173	Project Management for Digital Designers	2	1-2
GRDSGN 10201195	Advanced Digital Development	3	0-6

Madison Area Technical College

Effective 2025-2026
Program Number: 314421

Welding

A One Year Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
First Semester			
MACHT 10606200	Interpreting Engineering Drawings	2	0-4
WELD 31442312	Oxy Fuel Welding and Thermal Cutting	2	2-2
WELD 31442314	Arc Welding Theory	2	4-0
WELD 31442315	Basic Arc (SMAW)	2	0-4
WELD 31442318	Gas Tungsten Arc Welding 1 (GTAW/TIG)	2	0-4
WELD 31442323	Basic Gas Metal Arc Welding (GMAW/MIG)	2	2-2
MTLFAB 31457301	Fabrication 1	2	1-3
MTLFAB 31457309	Math For Metal Fabrication	1	2-0
Second Semester			
INSAFE 10449100	Safety for Industry	1	0-2
WELD 31442320	Welding Occupational Development	1	2-0
WELD 31442321	Arc Welding (SMAW) Vertical	2	2-2
WELD 31442322	Advanced Welding Techniques	2	2-2
WELD 31442326	Flux Cored & Advanced Gas Metal Arc Welding (FCAW/GMAW)	2	1-3
WELD 31442328	Gas Tungsten Arc Welding 2 (GTAW/TIG)	2	1-3
WELD 31442390	Fundamentals of Metallurgy	2	4-0
MTLFAB 31457302	Fabrication 2	2	1-3

Effective 2025-2026
Program Number: 904422CERT

Welding Fundamentals

A Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2025-2026 academic year. Requirements for completion may vary depending on the semester in which a student is admitted. Current/continuing students should consult their Academic Requirements report available through their student center account for specific requirements, as requirements are subject to change.

		Credits/Units	Hrs/Week LEC-LAB
Required Courses:			
INSAFE 10449100	Safety for Industry	1	0-2
MACHT 10606200	Interpreting Engineering Drawings	2	0-4
WELD 31442320	Welding Occupational Development	1	2-0
Select one of the following:			
MTLFAB 31457309	Math for Metal Fabrication	1	2-0
MACHT 32420711	Math for the Machine Trades	2	4-0
MATH 31804379	Vocational Math 1	1	2-0
Select one welding option:			
WELD 31442315	Basic Arc (SMAW)	2	0-4
WELD 31442318	Gas Tungsten Arc Welding 1 (GTAW/TIG)	2	0-4

Degree Credit Course Descriptions

ACCTG 10101106 **Accounting Fundamentals** **3 Credits/Units**
Surveys accounting principles and practices with an emphasis on interpretation, rather than preparation, of financial statements. Presents basic business terminology, cash basis and accrual basis accounting, ratio analysis, payroll, and budgeting. This class is not for students majoring in accounting.

ACCTG 10101111 **Accounting 1 - Principles** **4 Credits/Units**
Introduction to the field of accounting. The accounting cycle of journalizing transactions, posting, adjusting and closing entries, as well as the preparation of accounting statements is emphasized for service industries and merchandising concerns. Details of accounting for cash and receivables are studied. An introduction to a computerized accounting system is also included.

ACCTG 10101113 **Accounting 2 - Principles** **4 Credits/Units**
Procedures of accounting for partnerships and corporations. Additional topics include fixed assets, current liabilities and payroll, long-term liabilities, investments, statement of cash flows, analysis of financial statements, and may include an introduction to cost accounting.

ACCTG 10101118 **Management Accounting** **4 Credits/Units**
Emphasizes the managerial use of accounting reports, the problem-solving functions of accounting in relation to current planning and control, performance evaluation, long-range planning, budgets and cost-volume-profit relationships.

ACCTG 10101121 **Accounting 3 - Intermediate** **4 Credits/Units**
This intermediate-level course builds on the material covered in the Accounting Principles -1 and -2 courses. It expands on earlier coverage of both the income statement and balance sheet. Revenue recognition concepts and methods are covered. Emphasis is also placed on each classification of asset. This emphasis includes in-depth coverage of cash, receivables and inventory. Coverage also includes operational asset acquisition, depreciation, and disposal. Present value concepts are studied and applied. Excel spreadsheet software is used in this course.

ACCTG 10101122 **Accounting 4 - Intermediate** **4 Credits/Units**
Emphasizes analysis of financial statements. Generally accepted accounting principles are applied in the preparation, analysis and interpretation of financial statements. Particular emphasis is applied to valuation of current and long-term liabilities and stockholders' equity, and earnings per share. Special topics included are deferred income taxes, long-term investments, and leases. Further consideration is applied to errors and their correction, and statements of cash flow. Comparison and analysis is also made between GAAP and international standards(IFRS).

ACCTG 10101123 **Tax 1** **4 Credits/Units**
Introduction to federal and state income tax laws with an emphasis on personal taxes. These areas are included: filing status, personal exemptions and standard deductions; income recognition, itemized deductions, credits, depreciation, gains and losses, and sole proprietorship taxation. The course also requires the preparation of a series of individual income tax returns.

ACCTG 10101125 **Cost Management** **4 Credits/Units**
This course presents typical accounting methods and processes that are used for collecting information for effective decision making for both manufacturing and service environments. Areas emphasized include job order costing, process costing, standard costing, activity based costing, budgeting, cost allocations, cost-volume-profit analysis and capital investment analysis. Students will be required to prepare and analyze various management reports.

ACCTG 10101137 **Computerized Accounting Applications** **2 Credits/Units**
Provides practical experience developing and applying flexible solutions to accounting problems using Excel. Spreadsheet tools that may be utilized include analysis formulas, cross-referencing and linking, lookup, statistical, date/time, database and financial functions; tables, pivot tables, dashboards, transferring Excel information into other programs, logical statements (IF); what-if tools, charting and macros. Students will also benchmark ten-key data entry speed and improve this skill as needed.

ACCTG 10101138 **Accounting and Payroll Systems** **3 Credits/Units**
A survey of accounting and payroll systems covering procedures and methods to capture data and report financial information. Specific topics include flowcharting, internal controls, and transaction work in both manual and computerized environments. Special emphasis is also placed on payroll calculations and the processing of payroll information. Lab intensive course involving hands-on experience with Excel spreadsheet software and accounting software.

ACCTG 10101142 **Accounting Capstone** **3 Credits/Units**

This course will provide students an opportunity to demonstrate their attainment of program outcomes through the completion of a project. This project accounts for a small business through the accounting cycle, review of internal controls, and financial analysis.

Madison Area Technical College

ACCTG 10101143 **QuickBooks** **2 Credits/Units**
Student users work hands-on in QuickBooks Online to set-up company files; enter vendor, customer, and inventory data; track business activities; process payroll; prepare bank reconciliations, along with adjustments and year-end procedures; and create useful reports. A tutorial approach is followed using a textbook and practice problem company files. This course provides a good foundation to begin preparation to taking the Intuit QuickBooks Certified User exam through Certiport. This exam is not a requirement of the course.

ACCTG 10101154 **Payroll Accounting** **1 Credits/Units**
This course introduces the student to the many aspects of payroll accounting, administration, and management. The course is intended for accounting students, other business students and outside professionals who have a need or interest in understanding the laws and regulations, the calculations (including all payroll taxes), the government reporting and the accounting entries related to the payroll function.

ACCTG 10101244 **Financial Accounting** **4 Credits/Units**
Introduction to the field of accounting. The accounting cycle and the preparation of accounting statements is emphasized for service industries and merchandising concerns. Topics include details of accounting for cash, receivables, fixed assets, current and long-term liabilities. Further consideration will focus on accounting for partnerships and corporations, the statement of cash flows and analysis of financial statements.

ADMINPRF 10106100 **Mindset for Success** **3 Credits/Units**
Designed to foster the attitudes and skills that can inspire and empower you throughout your career regardless of your chosen path. Develop and improve skills in creativity, ambition, critical thinking, innovation, opportunistic thinking, and teamwork through experiential and problem-solving approaches. Become an engaged workplace contributor and develop a workforce-ready mindset.

ADMINPRF 10106106 **Business Writing and Research** **3 Credits/Units**
Apply effective writing strategies to compose employment-related correspondence including business letters, memos, informal reports, and formal reports. Learn to use correct-order writing plans as well as appropriate tone, etiquette, and style. Apply writing, researching, and critical thinking skills in the context of real business writing scenarios. Reinforcement of grammar, punctuation, and proofreading will be integrated throughout the course.

ADMINPRF 10106107 **Business Document Applications** **3 Credits/Units**
Achieve expert-level word processing skills by learning on Microsoft Office Word. Students will utilize the software to solve practical problems in a project-based format. Explore fundamentals and best practices in document creation, editing, formatting, collaboration, tables, mail merge, desktop publishing, themes, templates, forms, and macros. Students must have the ability to key 30 WPM.

ADMINPRF 10106108 **Proofreading and Editing** **3 Credits/Units**
Develop and refine writing skills with a focus on effective communication within the professional workplace. Review grammar, punctuation, and word usage skills. Proofread and edit business documents for appropriate content and clarity.

ADMINPRF 10106109 **Business Spreadsheet Applications** **3 Credits/Units**
Create professional data-driven workbooks utilizing Microsoft Office Excel spreadsheet software. Students will work with formulas to professionally format worksheets, create charts and tables, utilize advanced functions and apply conditional formatting, work with multiple worksheets, workbooks, and templates, incorporate data validation, utilize worksheet protection; create macros, export and cleanse data sets, and perform what-if analysis.

ADMINPRF 10106112 **Event Planning & Coordination** **3 Credits/Units**
Learn to plan and coordinate business meetings and events using event management processes such as goal setting, developing objectives, planning and implementation of event logistics, facility set up, and follow-up activities.

ADMINPRF 10106121 **Office Technology and Procedures** **3 Credits/Units**
Learn new technological advances used in today's office. Topics include office equipment; business procedures; digital communication; digital security, privacy, and threats; computer components; storage; and procedures that prepare you to work alongside administrative leaders via real-world business scenarios.

ADMINPRF 10106126 **Software Capstone** **3 Credits/Units**
This course is based upon knowledge learned in previous courses using multiple software applications including but not limited to: Microsoft Word, Excel, PowerPoint, and Access. Apply industry-standard formats to business correspondence including, business letters, reports, and publications. Manage information, apply critical-thinking skills to real-world scenarios, research topics, and compose a variety of integrated business documents, spreadsheets, databases, and presentations.

ADMINPRF 10106139 **Keyboard Skillbuilding** **1 Credits/Units**

Refine keyboarding technique, increase speed, and improve accuracy through individualized practice. The student must be able to touch type, which is defined as using the correct key reaches and not looking at the keys while typing, at a minimum rate of 25 words per minute. Equipment requirement: Access to Internet.

Madison Area Technical College

ADMINPRF 10106164 Customer Contact Skills 2 Credits/Units
Develop a foundation in customer service knowledge and skills through inquiry and analysis of internal and external customers, verbal and nonverbal communication, listening techniques, critical thinking and problem-solving, as well as adding value to customer service interactions. Focus on the impact of technology on customer service, analyze service breakdowns and recovery, examine customer loyalty programs, and explore the diverse customer base within our global economy.

ADMINPRF 10106168 Microsoft Office for Business Applications 3 Credits/Units
Learn basic features of Excel, Word, PowerPoint, and Outlook using Microsoft Office 365. Explore Excel to create workbooks, write formulas & functions, manage data, and produce charts & graphs. Discover how Word can automatically generate footnotes, insert citations, and create a bibliography. Create presentations through PowerPoint focusing on layout and design elements. Manage email and calendar using Outlook. Students must have file management skills including saving, organizing, and retrieving files.

ADMINPRF 10106172 Administrative Office Management 3 Credits/Units
Develop the skills necessary to succeed in a global business office. Topics include: teamwork and interpersonal skills, business travel, meeting preparation and support, meeting minutes/note taking, online surveys, workplace confidentiality, management and leadership skills, and global business perspectives. Learn how to effectively manage and support others within an organization.

ADMINPRF 10106190 Professional Development 1 Credits/Units
Get fully prepared for your job or internship search! Build an electronic portfolio by creating an effective resume, cover letter, and thank you letter. Polish interviewing, networking, and personal branding skills. Learn effective techniques to present yourself to employers for job prospects or promotions.

ADMINPRF 10106192 Administrative Professional Simulated Practicum 1 Credits/Units
This simulated practicum is designed to take students' skills to the next level. As the program's capstone course, it should be completed in the last (graduating) semester. Students who have previous or current administrative work experience may consider completing the experiential credit portfolio.

ADMINPRF 10106231 Business Presentations and Publications 3 Credits/Units
Explore key graphic design principles and best practices for designing and presenting. Using Microsoft PowerPoint, incorporate graphics, SmartArt, icons, multimedia elements, charts, and tables to engage your audience. Add transitions and professional animations. Work with the Slide Master to fully customize presentations. Develop eye-catching handouts, flyers, social media posts, and presentations using free online graphic design tools such as Canva. Prerequisite: Windows competency, including solid file management skills. This course uses Microsoft Office PowerPoint and Canva.

AGMECH 10070100 Introduction to Agricultural Equipment 2 Credits/Units
Includes a discussion of the job requirements, skills needed, career options and employment opportunities in agricultural equipment repair and maintenance. Introduces basic mechanics, shop procedures, safety practices, tools and using service resources.

AGMECH 10070105 Electricity 1 3 Credits/Units
This class begins with a discussion of the laws of electricity as they relate to the operation of the charging, starting and lighting systems. Diagnostic testing and troubleshooting will be demonstrated on alternators, starters and lighting systems. Methods of repair will be demonstrated where methods are currently used at the dealerships.

AGMECH 10070115 Planting and Seeding 3 Credits/Units
This course provides instruction in the theory of operation, adjustment and service of planting equipment. Students will learn the operation and service of corn planters and grain drills. Emphasis is given to how the corn planter seed meters work and how the attachments operate. In addition, the course also provides information on the theory, operation, adjustment and service of planting and seeding equipment.

AGMECH 10070125 Hydraulics 1 3 Credits/Units
This course introduces the student to the hydraulic systems found on agricultural equipment. Demonstrate the theory of open and closed hydraulic systems. The component configuration and operational characteristics of this equipment will be introduced. Students will service and rebuild the pump, control valves and other components of the hydraulic system. Students will follow the technical manual diagnostic procedures to troubleshoot hydraulic system problems.

AGMECH 10070135 Basic Fuel Systems 2 Credits/Units
This course covers the theory of operation, construction and service of diesel engine mechanical fuel systems. Timing and adjustments and diagnostics of fuel systems along with air intake and exhaust systems including turbo chargers will also be covered.

AGMECH 10070145 Basic Powertrain 3 Credits/ Units

The course covers the operation, power flow, diagnosis and servicing of collar shift, synchronized transmissions, drive axles, and differentials. The class also discusses the operation and service of wet and dry clutches, power take off (PTO) drives and mechanical front wheel drives**.**

Madison Area Technical College

AGMECH 10070187 Occupational Experience 1 - 2 Credits/Units
Students receive on-the-job experience in the areas of implement repair and service. Areas covered include, but are not limited to, tillage, planting and hay harvesting machines. Students also will be exposed to the operation and function of the dealership service department. Prerequisite: second-semester standing.

AGMECH 10070191 Basic Engine Repair 3 Credits/Units
Study in this course will allow the student to develop a basic knowledge of combustion engine design and operation with the major emphasis on diesel engines. Experience in the course will provide the student with the skills and knowledge needed to diagnose, overhaul, maintain, adjust and repair engines found in agricultural machines and equipment.

AGMECH 10070193 Mobile Heating & Air Conditioning 2 Credits/Units
This course covers the theory of operation, service and testing of air conditioning units used to cool and heat the operator's cab. Lab work consists of leak detecting, evacuation, charging component installations, electrical circuits and troubleshooting of systems. Air conditioning service certification tests are also given to students enrolled in this course.

AGMECH 10070205 Electricity 2 3 Credits/Units
This class builds on proficiency with electrical/electronic test equipment in the testing of Ag equipment electrical systems. Testing and troubleshooting will be demonstrated on starting, charging and accessory systems. Relays, analog sensors, Hall Effect sensors, and other electrical component function, operation, and testing will be demonstrated.

AGMECH 10070215 Crop Harvesting 3 Credits/Units
This course provides instruction in the theory of operation and service of combines, headers, hay & forage equipment including balers, mower conditioners and forest harvesters. Students will learn how the equipment processes the crop, the basic components, means of service, repair and adjustments of the machines.

AGMECH 10070225 Hydraulics 2 3 Credits/Units
This course component configuration and operational characteristics of this equipment will be introduced. Students will service and rebuild the pump, control valves and other components of the hydraulic system. Students will follow the technical manual diagnostic procedures to troubleshoot hydraulic system problems.

AGMECH 10070235 Advanced Fuel Systems/Emissions 2 Credits/Units
This course covers the theory of operation, construction and service of diesel engine fuel systems. Also reviewed are diesel engine compression, ignition, theory combustion, chamber design and procedures for installing, timing of fuel quantity for proper combustion. Electronic fuel delivery will be discussed as it relates to engine operation.

AGMECH 10070245 Advanced Powertrain 3 Credits/Units
The course covers the operation, power flow, diagnosis and servicing of partial and full power shift transmissions, IVT/CVT transmission.

AGMECH 10070250 Precision Farming (GPS) 3 Credits/Units
This course will introduce students to GPS and how it works with agricultural machinery functionality. Basic GPS equipment guidance systems set-up, operation and diagnostics will be utilized. Types of GPS signals and their applications currently used on agricultural equipment will be covered. Set-up and operations of precision farming applications.

AGMECH 10070291 Advanced Engines 3 Credits/Units
Study in this course will allow the student to develop a basic knowledge of combustion engine design and operation with the major emphasis on diesel engines. Experience in the course will provide the student with the skills and knowledge needed to diagnose, overhaul, maintain, adjust and repair engines found in agricultural machines and equipment.

AGMECH 10070305 Electronics 3 Credits/Units
This course will teach student to diagnosis type and operation temperature, pressure and speed sensors. Students will be introduced to the computer machine communication systems. Students will be shown the procedure for recalling trouble codes and diagnostic of the code(s).

AGMECH 10070325 Hydraulics 3 3 Credits/Units
This course provides instruction on the component configuration and operational characteristics of these tractors will be introduced. Students will service and rebuild the axial piston pumps, SCV's and other components of the hydraulic system. Students will follow the technical manual diagnostic procedures to check out and troubleshoot the hydraulic system.

ANIM 10207103 Basic Drawing for Concepting 2 Credits/Units

An introductory drawing course emphasizing visualization and rendering skills necessary for concept development in animation and digital 3D. Students will learn the fundamentals of perspective, proportion, linear rendering, basic value structure, and digital approaches currently practiced in related industries. Lecture/demonstration and guided practice leads students toward the creation of concept drawings intended for modeling in 3D, including the development of variations, digital techniques to enhance productivity, and discussion of the strengths and limitations of 3D final execution.

Madison Area Technical College

ANIM 10207110 Animation 1 2 Credits/Units
General overview of professional animation, including current industry standards and practices. Students begin a basic study of motion dynamics based largely on the industry's "Fundamental Principles of Animation," presented through a combination of lecture and demonstration and continual analysis of existing professional animation. Contemporary standards, definitions, workflows, etc., are discussed as well as job organization and job-tracking skills, and translation of basic motion principles into digital 3D space.

ANIM 10207111 Texturing 1 2 Credits/Units
A foundation introduction to digital 3D. Students learn to organize electronic files and projects into a professional workflow, and to electronically navigate Cartesian space. Class activities include the basics of digital modeling and surfacing, and the translation of 2D prep-work into 3D prototypes.

ANIM 10207112 2D Fundamentals 2 Credits/Units
An introduction to Photoshop as used in professional 3D asset creation and concept development. File organization, efficiency, capture, and best practices are discussed, as well as basic texture creation, tiling, and interaction with 3D software.

ANIM 10207113 3D Fundamentals 2 Credits/Units
Students will begin with the basics of a 3D interface including selecting and manipulating objects, understanding Cartesian space as well as exploring best practices for organizing and structuring a 3D scene. Students will also be introduced to basic modeling tools and basic animation tools as a preparatory stage to the Modeling One and Animation One courses in the Animation Program Curriculum. This course will direct students towards building a solid understanding of the concepts, terms and workflows required to create professional level 3D assets for film and games.

ANIM 10207114 Modeling 1 2 Credits/Units
This course is an introduction to the fundamental techniques, theories, workflows and software as it relates to 3D modeling for real-time and pre-rendered production. Students will create digital models with an emphasis on topographical density, texture mapping, multi-step processes and asset design. Lectures and projects consist of the various production techniques that explore polygonal modeling and how to prepare constructed models for texturing.

ANIM 10207115 Technical Skills 1 2 Credits/Units
This course teaches skills in computer hardware and Microsoft Windows and technical skills required by production studios. Topics include best practices for file storage and backup, how to manage files via source control software, how to use task tracking and asset review software, as well as technical concepts used within 3D applications.

ANIM 10207117 Figure Drawing for Concepting 3 Credits/Units
An introduction to drawing the human figure for the purpose of creating concept art for 3D industries. Course syllabus includes approaches to gestural sketching, proportional and anatomical construction, complete figure studies, and digital techniques for making corrections, variations, and enhancing productivity based on current 3D industry practices.

ANIM 10207120 Animation 2 2 Credits/Units
Continuation of the study of motion with emphasis on character movement and animation. A combination of lectures and class demonstration introduces students to forward- and inverse-kinematics, and gradually more complex rigging. The continued study of body mechanics and dynamics by analyzing classic and contemporary professional animation will assist students in translating their own ideas into credible motion in digital form.

ANIM 10207122 Texturing 2 2 Credits/Units
A continuation of Texturing 1, this course moves students into more complex modeling and surfacing challenges. Specialized techniques such as patch- and advanced spline-modeling are explored as well as specialized shaders, normal maps, and other advanced surfacing options. Students complete the semester with the design and creation of a complex, multi-part object correctly constructed, linked and boned for advanced animation techniques.

ANIM 10207123 Animation Technical Skills 2 2 Credits/Units
This course teaches skills related to the digitizing of real-world motion to 3D character animation. Students will learn fundamental motion capture concepts and skills related to digitizing and working with digitized data.

ANIM 10207124 Concepting 1 2 Credits/Units
Intensive study of the process of developing visual concepts for 3D execution. Course Traditional and digital drawing techniques cover the design of architectural, mechanical, vehicle, and other assets related to the creation of credible and functional 3D environments.

ANIM 10207130 Digital Set Design 1 2 Credits/Units
Students concentrate on the planning and construction of architectural and environmental spaces in game-engine software. Basic architectural principles as they relate to animation and appropriate effects for specific themes are explored as well as environmental factors relating to the creation of credible worlds. Class activities include the exploration of specialized perspective problems, world-specific texture-sets, lighting and composition.

ANIM 10207131 Animation 3 2 Credits/Units
By exploring various off-computer techniques for analyzing character motion, students practice translating their observations into digital form and applying them to their own creations. Extensive study of actual footage and professional work helps students make the conceptual transition from real-world to believable virtual motion.

ANIM 10207134 Modeling 3 2 Credits/Units
A continuation of modeling skills developed in first two semesters with concentration in creating character and creature models correctly structured for rigging and animation. Realistic and stylized designs are explored as well as advanced UV and basepage techniques.

ANIM 10207135 Real-Time Animation 1 2 Credits/Units
Students study processes for transferring animation content from digital content creation applications into game-engines. Topics include creating interactive animations for environment objects, state machine logic and implementation, and character movement through a first-person perspective.

ANIM 10207136 Texturing 3 2 Credits/Units
Students explore more complex surfacing techniques for video games, film, and animation. Lessons will cover in depth material node and UV exploration to enable students to create surfaces that animate, glow, interact, and maintain high fidelity regardless of scale. Other topics include VFX in videos games, real-time performance, and portfolio presentation.

ANIM 10207137 Pre-Production 2 Credits/Units
Students examine and determine what art content they'll need to create in their fourth semester to have a successful art portfolio upon graduation. Popular time management tools, agile frameworks and methodologies are taught. By the end of this course students will have built their production schedule built for Production 1 and one portfolio quality asset.

ANIM 10207139 Design & Color for Concepting 2 Credits/Units
An introduction to the fundamental principles of design and how they relate to both 2D and 3D environments. The course examines differences in interpretation when design principles are applied to a variety of 2D and 3D scenarios. The second half of the semester introduces primary, secondary and tertiary colors leading to an in-depth exploration of color theory and how these concepts relate to 3D media.

ANIM 10207140 Technical Skills 3 2 Credits/Units
This course covers core concepts and skills required to build animation rigs. Topics include skeletal creation, deforming meshes, custom attributes, node-network workflows, scene organization, and various transform constraints. Content creation is focused on production pipelines that target real-time applications.

ANIM 10207141 Production 1 3 Credits/Units
Production Studio is an advanced course in multiple aspects of digital 3D motion. The focus of this course is to develop more intricate and complex character and mechanical animation.

ANIM 10207145 3D Portfolio 1 Credits/Units
Students will finalize a series of animations and other artwork to be posted online highlighting individual capabilities with the goal of targeting potential employers and/or four-year animation degree programs for further education. In addition, students prepare a professional-level 2D portfolio and a personal ID package (stationary, business cards, etc.). Participation in the year-end Applied Arts portfolio show is required.

ANIM 10207146 Production 2 3 Credits/Units
This course is a continuation of Production 1. Students continue to refine their art portfolios, while working within a studio production structure. By the end of this course, students will have an art portfolio that is ready for public display.

ANIM 10207147 Rendering 2 Credits/Units
This course teaches skills related to materials, lighting, rendering, and video editing. Topics such as shaders, color management, sampling, global illumination, compositing, and codecs covered. By the end of this course students will be able to render still images or animation for their portfolio.

ANIM 10207148 **Digital Cinematography** **1 Credits/Units**

This course explores design principles and techniques through the lens of light, color, and composition. Students will be exposed to the concepts and practical application of digital cinematography by applying lighting rigs to 3D subjects, emphasizing elements of an image through atmosphere, perspective, camera positions to clearly communicate a narrative, capturing scenes both still and in motion.

ANIM 10207149 **Real-Time Animation 2** **3 Credits/Units**

Students continue to build upon the skills the acquired in Real-Time Animation 1 with a focus on third person animations. Students create animations and state-machines for non-player and third-person player characters. Additional topics include real-time facial animation and creating cinematic using scripted character animations, cameras, and effects.

ANIM 10207151 **Concepting 2** **2 Credits/Units**

Intensive study of the process of developing visual concepts for 3D execution, with concentration on the development of character and creature ideas for 3D execution. Traditional and digital drawing techniques cover the design of functional body-mechanics, personality traits and other aspects related to creating the illusion of life.

ANIM 10207160 **Animation Digital Set Design 2** **3 Credits/Units**

Students build upon skills learned in Digital Set Design 1 and work toward the completion of a functional digital environment. In-engine animation and playback are discussed along with further studies in architectural principles, interior and exterior lighting, textures and fine-tuning the final appearance of each student's own creation.

ANIM 10207224 **Modeling 2** **2 Credits/Units**

This course is an advanced modeling class focusing on specific techniques for creating hard surface models. Hard surfaced models are defined in this course as man-made or machined objects, examples might include helmets, wind turbines, robots or furniture. Building on the concepts of Modeling 1, students will be required to design, research, model, texture and light various hard surface projects over the course of the semester.

ANTHRO 20809280 **General Anthropology** **3 Credits/Units**

Anthropology as the study of humanity through time and across the world. Nothing that is human is alien to anthropology. This course will take through all of human history, from before our ape ancestors stood up and began walking on two feet up to the present day. Along the way, you'll learn a little bit about the 4 sub-fields of anthropology: Biological Anthropology, Archaeology, Linguistics, and Cultural Anthropology.

ANTHRO 20809281 **Archaeology & Prehistoric World** **3 Credits/Units**

This is a course designed for students who are interested in the human past, the period of prehistory for which there are few written records and most of our knowledge comes to us via archaeological investigations. The course is organized both in a historical and a topical fashion. We will trace the evolution of human culture through time, focusing on the best-known archaeological sites throughout human history.

ANTHRO 20809283 **Cultural Anthropology & Human Diversity** **3 Credits/Units**

This is a course designed to introduce you to the ways that cultural anthropologists understand the many ways that humans have come to know their worlds and to use the concepts, skills and theories emerging from cultural anthropology to explore the many ways that members of our one species have learned to make sense of this complex world that we all share.

ANTHRO 20809285 **Anthropology of Myth, Magic, and Religion** **3 Credits/Units**

An anthropological course designed to explore and examine the place of magic and religion in human culture. Students will look closely and critically at 'world religions' (Buddhism, Islam, Christianity, etc.) with analytical exploration of smaller-scale religious and magical practices (shamanism, Wicca, new Age, Cargo Cults, etc.). The forms that magic and religion have taken in human cultures, both past and present, will be covered. Prerequisite: any college-level social science course.

ARABIC 20802240 **Intro to Modern Arabic 1** **3 Credits/Units**

Intro to Modern Arabic 1 focuses on the study of Arabic sounds and writing system and develops conversational skills in Modern Standard Arabic used in educational institutions throughout the Arabic-speaking world. Students will speak and write using basic vocabulary while developing a thorough understanding of the Arabic writing system.

ARABIC 20802241 **Intro to Modern Arabic 2** **3 Credits/Units**

Intro to Modern Arabic 2 builds on the basic understanding of Modern Standard Arabic sounds and writing system and conversational skills established in Intro to Modern Arabic 1. Students will speak and write about themselves using complex structures utilizing the Arabic writing system. This course advances oral and written communication proficiency in contemporary Arabic.

ARCHT 10614100 **Introduction to Architecture** **3 Credits/Units**

This course is for any student wishing to better perceive and understand the built environment around them and the architecture profession's influence on that. Through lectures, discussions, videos, and student projects, the course will provide an overview of the fundamental elements of architecture including design, history, terminology, sustainable design, urban design, and landscape architecture.

ARCHT 10614101 Architectural Theory 1 2 Credits/Units
This course offers an inclusive exploration of key architectural theories, design principles, and global philosophies. Through active dialogue and collaborative analysis, students will critically examine how architecture reflects and shapes diverse cultural, social, and behavioral contexts. Emphasis is placed on equitable participation, accessibility of ideas, and multiple forms of expression. Students will engage with peers using a variety of visual, verbal, and written methods to present their understanding of architectural concepts.

ARCHT 10614103 Architectural Software 3 3 Credits/Units
In Architectural Software 3, students will primarily use Revit to continue to develop proficiency in the skills and techniques introduced in Architectural Software 2. New concepts include: conceptual massing, family creation, parametric model design, scheduling, worksharing, and project management.

ARCHT 10614104 Architectural Software 4 3 Credits/Units
Architectural Software 4 focuses on interesting technologies that are relatively new to the profession of architecture. Such programs and technologies include Blender, Enscape, advanced rendering techniques, augmented reality, and virtual reality.

ARCHT 10614106 Architectural Building Codes 3 Credits/Units
Emphasis is placed on the study of the commercial building code currently adopted by Wisconsin (International Building Code) and the parameters it places on the design of buildings. Learners will become familiar with using the code as a means of protecting the health, safety, and welfare of the public and will acquire a general knowledge of other codes and standards used in the design of commercial and residential architecture.

ARCHT 10614107 Architectural Building Detailing 3 Credits/Units
This course provides an in-depth study of materials and building assemblies as it pertains to accepted practices in architectural detailing and design. Emphasis will be placed on detailing techniques commonly found in commercial construction. Topics included are masonry, steel, and concrete construction.

ARCHT 10614109 Architectural Building Structures 3 Credits/Units
This class introduces the student to a variety of structural systems. The student will gain the basic knowledge to calculate the sizes of structural members including steel, wood, and masonry. This is a project-based course which mainly uses Revit and Sketchup. Students are expected to have basic experience with these softwares before beginning the class.

ARCHT 10614121 Construction Materials - Architectural Technology 3 Credits/Units
Architects are expected to be thoughtful and skillful with material selection. This course will help the learner acquire a basic conceptual framework and vocabulary of the materials, assemblies, and tectonic systems of a building's structure, enclosure, and interior by understanding their properties, manufacture, and application both in design and construction contexts.

ARCHT 10614123 Architectural Studio 3 4 Credits/Units
Learners will be introduced to design issues related to architectural systems as a determinant of form by engaging in design projects of varying length and complexity. Students will analyze and design structural and mechanical systems, as well as plumbing, electrical, and data systems, highlighting their impacts on building functionality, human occupation and comfort, sustainability, and spatial organization.

ARCHT 10614127 Architectural Software 2 4 Credits/Units
Architectural Software 2 introduces students to Autodesk Revit, the leading BIM technology used in the architectural industry. Explore the BIM modeling concepts and learn various commands and techniques for creating 3D parametric BIM models that incorporate both architectural and structural components. Learn how to generate different views, such as site plans, floor plans, elevations, sections, details, schedules, and renderings. Course uses a tutorial-based approach, allowing students to learn the software step-by-step. Students design an architectural project using Revit and generate a design-development level construction document set.

ARCHT 10614128 Architectural Software 1 4 Credits/Units
Architectural Software 1 introduces learners to basic architectural drawing conventions and construction documentation. Using the industry standard 2D AutoCAD drafting software, students create plans, sections, and elevations for simple design projects using proper orthographic projection drawing techniques.

ARCHT 10614129 Architectural Studio 1 4 Credits/Units
Architectural Studio 1 introduces students to foundational architectural design - thinking, principles, and techniques. Through lectures, technology, and conceptual design projects, students will become familiar with the architectural design process, complex spatial design, brainstorming, architectural tectonics, and visualization.

ARCHT 10614130 Architectural Studio 2 4 Credits/Units
This course continues development of students' design thinking. Deliverables and graphics focus on proper production of architectural construction documents using AutoCAD and SketchUp. Students create, document, and present simple design projects as a framework to achieve outcomes.

ARCHT 10614131 Architectural Professional Practice 3 Credits/Units
This course will examine the organization and conduct of a design/construction practice and one's place in it. Learners will investigate topics including seeking and gaining employment, laws of practice and licensure, project estimating, project delivery methods, contracts and legal issues, professional ethics, project manuals, and construction contract administration.

ARCHT 10614145 Architectural Studio 4 4 Credits/Units
This course covers the basic skills used in the building design process. It is considered a capstone design studio which integrates skills gained in your first three semesters. We usually work with community-based organizations, which may include projects for various nonprofit organizations. The student is introduced to building, siting and massing, program analysis, building circulation, space flow diagrams, adjacency studies, and building context.

ARCHT 10614154 Site Design 3 Credits/Units
This class introduces design issues of the site a building occupies including the importance of community and culture and how they inform the development of land. We will explore building massing and site analysis as they relate to the urban context; learn about vehicular and pedestrian circulation, zoning analysis, contour manipulation; and discuss basic plant material selections. Working in teams and giving in-class presentations is also emphasized.

ART 20815201 Basic Design 3 Credits/Units
Basic Design introduces students to the elements of art (line, texture, color, shape, and value). Students will investigate principles of design, composition and basic color theory in projects incorporating a variety of media. Students will demonstrate class concepts by creating hands-on projects. Instruction in Adobe Photoshop will also be incorporated into class projects.

ART 20815205 Drawing 1 3 Credits/Units
This is an introductory drawing class emphasizing sound craftsmanship and the study of basic freehand drawing from direct observation. Class topics include the study of perspective, proportion, composition, and properties of light and shade. Students will explore a variety of drawing media and techniques. Participation in class critiques is required.

ART 20815215 Drawing 2 3 Credits/Units
This course explores a variety of drawing media and techniques through projects emphasizing subject/content relationships. Students will work to improve their drawing skills as they respond to various themes are presented as drawing challenges. Students can bring their own interest to drawing projects, and various drawing media can be used. Students will develop conceptualization skills preparing them for independent projects.

ART 20815219 Life Drawing 1 3 Credits/Units
This course introduces drawing the figure in a variety of situations. Both descriptive and expressive ways to depict the figure will be considered. Includes study of human anatomy. Students will explore representing the human figure with line and with shading.

ART 20815220 Life Drawing 2 3 Credits/Units
This course continues life drawing with emphasis on expression, articulation, and refinement of technique for dramatic effect. Students are expected to further their skills from Life Drawing 1. Effects of environment, lighting, and composition will be emphasized.

ART 20815221 Life Drawing 3 3 Credits/Units
This course continues life drawing with emphasis on expression, articulation, and refinement of technique for dramatic effect. Students are expected to further their skills from Life Drawing 1 and Life Drawing 2. Effects of environment, lighting, and composition will be emphasized. Students will be guided toward a portfolio of figurative drawings that demonstrate their unique approach to depicting the human form. Students will build a portfolio of advanced level figure drawings.

ART 20815227 2D Studio Independent Study 3 Credits/Units
Explores drawing or painting projects with an emphasis on content development. Students will develop a project with a goal of creating a series of related works that build a coherent portfolio. Students select subjects, techniques, and concepts that are appropriate to their proposed project. Weekly assessment and several group critiques will help guide students to an advanced level portfolio. The size and number of works will be determined by the instructor's assessment of the proposal.

ART 20815233 Digital Photography Independent Study 3 Credits/Units
Students will work independently on digital photography projects under the supervision of an instructor. Computer literacy, basic camera operation, understanding of exposure, basic photograph editing skills in Lightroom or Photoshop, fundamental knowledge of the photography is required. Students provide their own digital cameras.

ART 20815235 Creative Photography 3 Credits/Units
This course reviews and expands digital camera basics, Lightroom and Photoshop editing technique. Expression through photography as a fine art is developed through a series of problems stressing, personal vision and mastery of the photographic media. Students provide their own digital cameras.

ART 20815239 Digital Photography 3 Credits/Units
This course introduces the photographic process through the use of digital cameras to produce images for presentations, the world wide web, and electronic publication. This course covers basic principles of effective composition, lighting, exposure, and control of motion and focus. Students provide their own digital cameras.

ART 20815241 Painting 1 3 Credits/Units
Introduces the basic techniques of oil painting with emphasis on composition and color. Students paint from classroom still life subjects for the first part of the course. Students may also explore chosen subjects as they explore various techniques appropriate for certain color schemes. Later in the semester, abstraction and invented imagery is explored.

ART 20815242 Painting 2 3 Credits/Units
Explore conceptually challenging painting themes with emphasis on content development. Projects encourage students to respond to various themes by developing a unique image. Assignments allow for optional subjects, media, size, techniques appropriate to the number of works submitted. The goal of this course is to introduce students to various thematic challenges that will help in developing a personal style necessary for exploring independent projects.

ART 20815253 Jewelry 1 3 Credits/Units
Focuses on the development of skills such as fabrication/soldering, forming, bezel setting of cabochon stones, surface treatment and embellishment, and a variety of casting processes. Curriculum focuses on qualities unique to metalsmithing as a craft practice. Students gain an understanding of the discipline, while allowing for multiple traditional and experimental processes. Students are encouraged to develop their own creative vision exploring their ideas in metal.

ART 20815254 Jewelry 2 3 Credits/Units
Continues the development of key aspects of Jewelry 1 and introduces additional techniques and ideas, such as die forming, hollow forms, hinge making, fold forming and mold-making. Curriculum focuses on qualities unique to Metalsmithing as a craft practice. Students gain an understanding of the discipline, while allowing for multiple traditional and experimental processes. Students are encouraged to develop their own creative vision exploring their ideas in metal.

ART 20815290 Ceramics 1 3 Credits/Units
Introduces clay as a creative material to broaden one's skills and knowledge of the general and contemporary topics in ceramics. Students will cover multiple methods of building with clay, including pinching, soft and hard slab building, coiling, and throwing on the wheel. Explores form and surface decoration through glazes, textures, carving and imagery. Encourages participation and provides experience loading and firing kilns. Lab safety, and cleanliness is important in this lab course.

ART 20815291 Ceramics 2 3 Credits/Units
Continues skills learned in Ceramics 1 by refining their ability to work on the potter's wheel through technique-based assignments, demonstrations, and research. Wheel throwing is the primary method of making with some hand building options. Glaze development, application, and kiln loading are learned through hands-on activities. Students will expand their vocabulary and knowledge of historical and contemporary ceramics through research and critiques. Lab safety, cleanliness, are essential.

ART 20815293 Ceramics Independent Study 3 Credits/Units
This class is for ceramic students that have already taken 2 ceramic classes and want to pursue their own project-based learning and find their own artistic voice. There is flexibility in the topics students choose to work with, yet the course will include research, technical exploration, writing artist statements, and documenting work. Working with faculty, students will set up self-directed goals and hold regular meeting to make sure goals are met and revised as needed.

ART 20815294 Ceramics Sculpture 1 3 Credits/Units
Introduces clay as a building material for creating sculpture. This class covers multiple hand-building methods of clay, including pinching, soft and hard slab building, coiling, press and slip molds, and tile making. Students will explore form and surface decoration through glazes, textures, carving, and imagery. This course provides experience in researching and critiquing other works of art. Lab safety and cleanliness are essential in this lab course.

ART 20815295 Ceramics Sculpture 2 3 Credits/Units
In Sculpture 2 the students will strengthen and refine the skills they learned in sculpture 1 through technique-based assignments, demonstrations, and research. All students must participate in class while sharing their experience in researching and critiquing other works of art. Lab safety and cleanliness are essential in this lab course, as well as attendance and effort.

ART 20815296 Ceramics Firing Techniques/Alternative Methods 3 Credits/Units
Focuses on different firing techniques, including raku, sawdust firings, wood firing, saggars at different temperatures, primitive pit kilns, and low temperature techniques. Surface treatments to pots that enhance the uniqueness of the firing will be stressed. Students will manage firings. The class may include wood or salt firing. Students will read articles and give a report to the class about the subject. Each student must participate in kiln building, stacking, and managing the firings.

ART 20815299 **Ceramics Firing Techniques 2** **3 Credits/Units**

Builds upon the skills learned in level-1, including raku, sawdust firings, wood firing, saggars at different temperatures, primitive pit kilns, and low temperature techniques. Surface treatments to pots that enhance the uniqueness of the firing will be stressed. Students will manage firings. The class may include wood or salt firing. Students will read articles and give a report to the class about the subject. Each student must participate in kiln building, stacking, and managing the firings.

ARTHIST 20815200 **Art History: Ancient to Medieval** **3 Credits/Units**

Surveys the development of pre-historic through Medieval art and architecture in Europe, the near East and Egypt. Emphasis is given to the form and meaning of a group of artworks and buildings, their stylistic tendencies, and respective movements in the history of art, and the socio-political and cultural contexts for these movements.

ARTHIST 20815210 **Art History: Renaissance to Modern** **3 Credits/Units**

This course is a survey of the development of European and American art and architecture from the time of the early Renaissance in Italy through approximately 2000. Emphasis is given to the form and meaning of a select group of artworks and buildings, their stylistic tendencies, and respective movements in the history of art, and the socio-political, historical, and cultural contexts for these movements.

ARTHIST 20815211 **Art History: Women In Art** **3 Credits/Units**

Explores gender studies as they apply to the historical, cultural, and socio-economic context of women artists and feminist art in Western art history. Examines the production of women artists from the Middle Ages through current issues and the ideologies that influence our understanding of and access to the artistic production of women. Theories and experiences of gender, race, class, and sexual orientation will be considered.

ARTHIST 20815228 **Art History: Global Arts** **3 Credits/Units**

Analyze artworks produced around the world from ancient times through the contemporary. Consider artistic production, art criticism, cross-culture exchanges, and aesthetics, to deepen understanding of cultural differences and interactions. Explore a range of media and enhance sensitivity to visual and material forms. Develop a foundation in visual and material analysis.

ASTRON 20806253 **Astronomy: The Solar System** **4 Credits/Units**

An introductory astronomy course covering the sky and celestial motions, ancient astronomy, the Copernican revolution, gravity and orbits, light and astronomical instruments and the solar system. Recommended evening observing sessions will also be included. (These are off campus meetings for star viewing with the school's binoculars and telescopes.)

ASTRON 20806254 **Astronomy: Stars & Galaxies** **4 Credits/Units**

An introductory astronomy course covering gravity, light and astronomical instruments, our Sun, stars and stellar evolution (including nebulae, supernovae, white dwarfs, pulsars, and black holes), Milky Way and other galaxies, and cosmology (history, structure, and fate of the universe, big bang theory). Some optional evening observing sessions may also be included (off campus meetings for star viewing with the school's binoculars and telescopes).

AUTOBODY 32405301 **Basic Sheet Metal Repair & Welding Fundamentals** **5 Credits/Units**

Course material covers the introduction in the use of an oxyacetylene welding/cutting outfit as related to collision repairs. A heavy emphasis is placed on the mig welding process, types of welds and techniques used of hammer and dolly, pry tools, stud guns, air and electrical tools, hydraulic-porto-power jacks and other straightening tools, used in the processes of metal finishing and plastic filling.

AUTOBODY 32405302 **Refinishing 1** **5 Credits/Units**

The refinishing phase includes instruction in the proper use and maintenance of the spray gun, refinishing panels and fenders, spot repairing of panels and fenders, and mixing of paint formulas. Application of primers, sealers, single stage, and coat/clear coat are covered. Instruction in shop, tool and paint safety, and state and federal environmental concerns are presented.

AUTOBODY 32405303 **Non-Structural Panel Repair & Glass Servicing** **5 Credits/Units**

Further development of straightening skills and sheet metal alignment is achieved by performing these activities on automobiles. Such operations as straightening damages sheet metal on fixed parts and removable panels are performed. Instruction on the replacement of fixed glass such as windshields, rear window, and side glass is covered using industry standards. Further instruction includes the components and procedures involved in the removal and installation of movable glass.

AUTOBODY 32405304 **Refinishing 2/Trim & Hardware** **5 Credits/Units**

The refinishing phase includes further instruction in the proper use of the spray gun, performing partial and complete refinishing repairs on vehicles. Procedures for blending and tinting of the paint to achieve an acceptable color match are practices. Shop and paint safety practices are emphasized. Instruction on the safe removal and installation of trim and hardware is covered along with specialty tools necessary to perform operations using industry accepted procedures.

AUTOBODY 32405305 **Auto Refinishing/Color Adjustment** **5 Credits/Units**

Vehicle refinishing techniques including preparing adjacent panels for blending, base coat and clear coat blending, color adjustment and testing color match. Complete refinishing and panel blending is performed on repaired vehicles.

AUTOBODY 32405306 Collision Structural Welding & Panel Replacement 5 Credits/Units
Structural damage analysis, measuring vehicle dimensions, pulling and straightening vehicle structures. Replacement and alignment of non-structural panels will be performed on vehicles. Collision structural section joints will be constructed and welded (GMAW).

AUTOBODY 32405307 Adv Collision Structural Repair 5 Credits/Units
Further development of straightening skills and sheet metal alignment is achieved by performing these activities on automobiles. Such operations as straightening damaged sheet metal on fixed parts and removable panels are performed. Instruction on the replacement of fixed glass such as windshields, rear window, and side glass is covered using industry standards. Further instruction includes the components and procedures involved in the removal and installation of movable glass.

AUTOBODY 32405308 Collision Plastics/Composites & Adv Refinishing Applications 5 Credits/Units
Identification of automotive plastics, repair decisions, using adhesives and welding to repair plastics. Refinishing techniques include refinishing plastic, multi-stage finishing, and advance blending techniques and custom painting options.

AUTOBODY 32405311 Introduction to Airbrushing and Custom Painting 2 Credits/Units
This course is designed to implement and reinforce core skills presented in the two-year Auto Collision Repair and Refinishing Technician Program by applying them to specialized uses in custom painting and airbrushing applications. Use an airbrush and conventional paint guns to perform small-scale repairs and touch-ups and create advanced paint schemes, layouts, and graphics. Techniques of mixing custom paint colors will be presented. Introduction to metal shaping tools and techniques, hand tools, and machines to create metal parts and metal art.

AUTOBODY 32405321 Advanced Airbrushing and Custom Painting 2 Credits/Units
This course is designed to implement and reinforce core skills, while practicing more advanced skills in specialized custom painting and airbrushing application. Use an airbrush and conventional paint guns to perform small-scale repairs and touch-ups, create advanced paint schemes, layouts, and graphics. Use custom paint mixing techniques to match and blend for accurate repairs. Create metal parts and art using shaping tools and machines and practice fiberglass mold and part making.

AUTOBODY 32405334 Collision Damage Analysis and Report Writing 3 Credits/Units
This course includes damage analysis, vehicle identification, estimate writing sequence, use of estimation guide for parts and labor costs, and writing damage reports manually and with a computer. Each student has the opportunity to estimate damaged vehicles.

AUTOBODY 32405361 Collision Repair/Refinishing Theory 1 3 Credits/Units
Covers related information on all phases of auto body welding and metal straightening with hand tools and hydraulic equipment. Collision damage analysis of sheet metal and unibodies is studied. Different types of sheet metal, such as HSS and HSLA, as well as the properties of sheet metal are discussed. Where and how to use plastic filler is presented. Paint equipment such as the operation and maintenance of the spray gun is studied. Extensive discussion takes place on refinish products, surface preparation, sanding and polishing, thinners and reducers and top coat application. Instruction in shop, tool, paint safety, and state and federal environmental concerns and regulations are presented.

AUTOBODY 32405363 Collision Repair and Refinishing Theory 2 3 Credits/Units
To further promote knowledge of repair skills related to auto collision repair and refinishing, the following discussion areas are included: the evaluation of automobile bodies and damage repair techniques, unibody construction and repair techniques, vehicle preparation, metal correction and parts replacement. Additional instruction includes glass installation, electrical accessories, door and window servicing and trim replacement.

AUTOBODY 32405365 Collision Repair and Refinishing Theory 3 3 Credits/Units
Color theory, color adjustment procedures, planning the blending process and application techniques will be applied. Vehicle construction, anchoring and pulling systems, and measure systems are introduced. Theory includes structural straightening process, full panel replacement, sectioning joints and procedures and repair planning. Non-structural panel repair, replacement and alignment will be covered.

AUTOTEC 10602100 Automotive Fundamentals 2 Credits/Units
Students are introduced to the automotive service industry and learn service information to perform basic under-hood and under-car services. This class also focuses on developing skills in the automotive profession, safety, and the use of basic and power tools and equipment in accordance with industry standards.

AUTOTEC 10602101 Automotive Service Procedures 3 Credits/Units
Service Repair includes the theory, design and operation of the automobile engine, this course includes maintenance, light-duty repair and safety inspections. Engine lubrication, cooling and exhaust systems are also studied and serviced.

Madison Area Technical College

AUTOTEC 10602115 **Hybrid and Alternative Fueled Vehicles** **2 Credits/Units**

This course provides: a brief history of electric and hybrid electric vehicles, electric/hybrid electric vehicle safety procedures and equipment; components and current vehicle overview; hybrid electric vehicle components; current design configurations, current and near future vehicles; an introduction to electric/hybrid electric vehicle test equipment and procedures; and an introduction to electric/hybrid electric vehicle maintenance and trouble shooting. Also, Diesel, alternative fuel systems, including CNG and Fuel Cell, and related components are covered.

AUTOTEC 10602124 **Automotive Electrical 1 (E1)** **3 Credits/Units**

The automotive repair industry demands that technicians have a proficient understanding of the electrical systems which are at the heart of today's vehicles. Students are introduced to basic electricity fundamentals in accordance with industry standards and then apply the concepts to vehicle circuits and components.

AUTOTEC 10602126 **Automotive Electrical 2 (E2)** **2 Credits/Units**

This automotive course focuses on developing the skills needed to diagnose, service, and repair electrical and electronic systems, including batteries, starting and charging systems, lighting systems, horn and wiper systems, and introduction to computer control systems.

AUTOTEC 10602150 **Internal Combustion Engines** **5 Credits/Units**

The internal combustion automotive engine is studied in detail by discussion, demonstration and laboratory experiments. The latest machining equipment is used to accurately diagnose, disassemble, repair and reassemble an automobile engine. Diagnosis of engine related mechanical problems is covered.

AUTOTEC 10602152 **Driveability 2** **5 Credits/Units**

Practical application of principles, concepts and diagnostic abilities covered in the 2 prerequisite courses. Advanced electrical/electronic diagnostic applications will reinforce prior competency development.

AUTOTEC 10602154 **Automatic Transmissions** **5 Credits/Units**

This automotive course focuses on developing the skills needed to diagnose, service and repair automatic transmissions/transaxles including overhaul procedures.

AUTOTEC 10602155 **Manual Drivetrains & Axles** **5 Credits/Units**

The operation and theory of clutches, transaxles, standard transmissions, drivelines and differentials are covered. Areas of emphasis include diagnosis, repair, testing and periodic maintenance as recommended by major manufacturers. Classroom and shop time is utilized to develop skills in diagnosis and repair of clutches, drivelines and differentials.

AUTOTEC 10602156 **Automotive Heating & Air Conditioning Systems** **2 Credits/Units**

Study includes basic principles of refrigeration and air conditioning including the component parts that make up the A/C units on passenger cars and light trucks. Heating and automatic temperature controls are also studied. Students will receive State of Wisconsin AG 136.09 certification upon completion of this course.

AUTOTEC 10602157 **Technical Braking Systems** **5 Credits/Units**

Topics include principles of drum and disc brake designs, inspection and diagnosis. Covers wheel and tire diagnosis and repair. Steering and suspension safety inspection is covered. Lab experiences including inspecting, troubleshooting and the repair and replacement of defective or worn parts of the complete brake system. The use of correct procedure and tools is stressed.

AUTOTEC 10602158 **Service Management** **1 Credits/Units**

The principles of various types of business organizations are examined and applied to automotive wholesale and retail businesses, ultimately focusing on the automobile as part of the service department. Service department operation is covered in detail and depth from large organizations to small organizations. The conventional line method of management is stressed. Employment possibilities and job interviewing techniques are discussed.

AUTOTEC 10602162 **Automotive Electrical 3 (E3)** **2 Credits/Units**

Examines equipment supplied by both major manufacturers of automobiles and after-market suppliers. Classroom and lab activities help students to understand basic electricity, electric circuits and use of test equipment to troubleshoot problems in circuits such as lighting, windshield wipers, power windows, instruments and cruise control.

AUTOTEC 10602163 **Steering and Suspension Systems** **5 Credits/Units**

Principles of suspension designs, wheel alignment angles, inspection procedures, parts replacement, steering systems, shock absorbers/struts, sway bars and frame design. On-the-job experiences include inspecting and correcting suspension angles, parts replacement, adjusting steering gears. Covers four-wheel alignment.

AUTOTEC 10602166 **Driveability 1** **5 Credits/Units**

All engine operating systems are studied: engine breathing, ignition systems, computer control and sensors, fuel and air management and emission systems. Students learn how these systems operate, how to test for proper operation of systems and components, and how to use test equipment.

BAKING 31314302 **Yeast Breads** **3 Credits/Units**
Students develop manual baking skills and a working knowledge of the production and finish various yeast doughs including straight doughs and pre-ferments. Students learn both handcrafted and machine methods in the make-up of these products.

BAKING 31314306 **Bakery Retail** **1 Credits/Units**
The lab is used as a simulated bakery in this course with products being merchandised through the bakery store. Students are responsible for service case presentation as well as effective merchandising displays and customer service.

BAKING 31314309 **Baking Principles** **2 Credits/Units**
Students in this course will acquire a general understanding of basic baking principles. The functions of the major ingredients used in baking and pastry making are discussed, as well as the different types of bakery products. Students learn about the methods for producing bakery products as well as the equipment, both machine and hand tools required. Baker's math problems are calculated.

BAKING 31314311 **Baking & Nutrition** **1 Credits/Units**
Students will learn about the essential principles of nutrition and how they relate to baking. Topics will include understanding food labels, analyzing the nutritional content of ingredients, and incorporating healthier alternatives into baking recipes. Emphasis will be placed on understanding the role of carbohydrates, fats, proteins, vitamins, and minerals in baking, as well as exploring dietary restrictions and preferences such as gluten-free, vegan, and low-sugar options.

BAKING 31314315 **Intro to Baking** **3 Credits/Units**
Students develop a foundation of baking principles through hands-on application of production equipment in a state-of-the-art baking lab. Students will prepare a variety of standard bakery products to obtain knowledge of many baking processes. Safe use of bakery equipment and proper sanitation procedures are emphasized.

BAKING 31314335 **Specialty Cakes & Miniatures** **3 Credits/Units**
This course covers all aspects of specialty cake baking, constructing, and assembly. Products include various types of foam cakes, creamed cakes, icings and fillings. European classic recipes as well as current trends in cakes will be demonstrated with lab time for practice. An assortment of miniature bakery products will be produced.

BAKING 31314345 **Artisan Breads & Breakfast Pastries** **3 Credits/Units**
This course provides students with a working knowledge of the production of pre-fermented yeast doughs and sourdoughs. In addition, students produce Viennoiserie, both laminated such as croissant and Danish, and non-laminated such as Brioche and sweet dough. Production methods and speed are emphasized.

BAKING 31314355 **Bakery Production** **3 Credits/Units**
The lab is used as a simulated bakery in this course with products being merchandised through the bakery store. Students make items with an emphasis on production speed to help understand the flow of a real bakery. Students are responsible for service case presentation as well as effective merchandising displays and customer service.

BAKING 31314372 **Chocolate & Sugar Confections** **2 Credits/Units**
Students learn to work with sugar and isomalt to create basic decorations and showpieces.Techniques such as poured and pulled sugar are practiced. Decorative chocolate techniques such as chocolate clay, piping, and working with cocoa butter are practiced. Students learn the elements to create a chocolate showpiece.

BAKING 31314375 **Experimental Baking** **1 Credits/Units**
Provides the opportunity to discover functions of ingredients through lab experiments. Ingredient amounts and procedures are varied in specific formulas and results are observed to determine optimum formulation.

BAKING 31314384 **Cake Decorating** **2 Credits/Units**
Hands-on instruction in the basics of production cake decorating with attention given to the techniques of icing cakes. Cake decorating areas include script, borders, basic flowers, and seasonal decorating. Students practice icing cakes and decorating; emphasis is placed on accuracy and speed to simulate industry standards.

BAKING 31314388 **Advanced Cake Decorating** **3 Credits/Units**
Hands-on practice with advanced cake decorating techniques is provided. Techniques highlighted in this class include air brushing, buttercream flowers, dimensional design and layout, and tiered cake assembly.

BIOLOGY 10806105 **Principles of Animal Biology** **4 Credits/Units**

Principles of Animal Biology is an introductory biology course focusing on general biological principles, cell structure and function, genetics, comparative anatomy and physiology, evolution, and ecosystems. It includes dissection of various fresh and preserved materials.

Madison Area Technical College

BIOLOGY 10806177 Gen Anatomy & Physiology 4 Credits/Units
This course examines basic concepts of human anatomy and physiology as they relate to health sciences. Using a body systems approach, the course emphasizes the interrelationships between structure and function at the gross and microscopic levels of organization, of the entire human body. It is intended to prepare health care professionals who need to apply basic concepts of whole body anatomy and physiology to informed decision-making and professional communication with colleagues and patients.

BIOLOGY 10806179 Advanced Anatomy & Physiology 4 Credits/Units
Advanced Anatomy and Physiology is the second semester in a two-semester sequence in which normal human anatomy and physiology are studied using a body systems approach with emphasis on the interrelationships between form and function at the gross and microscopic levels of organization. Instructional delivery within a classroom and laboratory setting. Experimentation within a science lab will include analysis of cellular metabolism, the individual components of body systems such as the nervous, neuro-muscular, cardiovascular, and urinary. Continued examination of homeostatic mechanisms and their relationship to fluid, electrolyte, acid-base balance and blood. Integration of genetics to human reproduction and development are also included in this course.

BIOLOGY 10806197 Microbiology-University Medical 4 Credits/Units
This course examines microbial structure, metabolism, genetics, growth and the relationship between humans and microorganisms. It addresses disease production, epidemiology, host mechanisms and the medical impact of microbes. It examines the role of microbes in the environment, industry, and biotechnology.

BIOLOGY 20806203 Introductory Zoology 5 Credits/Units
Introductory Zoology covers general biological principles with an emphasis on cell structure and function, genetics, and vertebrate anatomy and physiology. Consideration is also given to diversity within the animal kingdom and environmental interactions. It includes three periods of lecture per week, two periods of laboratory and a one-period discussion session.

BIOLOGY 20806204 Biological Greek and Latin Terminology 3 Credits/Units
Biological Greek & Latin Terminology is an introductory course designed to provide students with a knowledge of biomedical terms and their related anatomy and physiology. Course will describe how scientific terms can be systematically analyzed and defined with an understanding of Greek and Latin word parts. Provides an understanding of anatomy and physiology that will help students interpret biomedical terminology.

BIOLOGY 20806206 General Anatomy and Physiology 4 Credits/Units
General Anatomy and Physiology features lectures and laboratory dealing with the human body as an integrated structural and functional unit, including the circulatory, respiratory, digestive, excretory, reproductive, nervous, endocrine, muscular and skeletal systems, in addition to cell structure and physiology. It includes dissection of fresh and preserved material as well as examination of a human cadaver. This course is not acceptable in programs requiring two semesters of Anatomy and Physiology. General Anatomy and Physiology is a one semester course. Students in programs that require two semesters of anatomy and physiology should take Anatomy and Physiology 1, 20-806-207 and Anatomy and Physiology 2, 20-806-208. Introductory college-level biology course recommended.

BIOLOGY 20806207 Anatomy and Physiology 1 4 Credits/Units
Anatomy and Physiology 1 features lectures and lab (including dissection) dealing with the human body as an integrated structural and functional unit, including anatomical terminology, fundamental concepts of cell biology, histology, integumentary, skeletal, muscular, endocrine, and nervous systems, and the special senses. This course is the first semester of a two-semester sequence.

BIOLOGY 20806208 Anatomy and Physiology 2 4 Credits/Units
Anatomy and Physiology 2 features lectures and lab (including cat dissection) dealing with the human body as an integrated structural and functional unit, including the cardiovascular system, lymphatic system and immunity, respiratory system, digestive system and metabolism, urinary system, fluid/electrolyte balance and acid/base balance, and reproductive system. This course is the second
semester of a two-semester sequence.

BIOLOGY 20806215 Botany 5 Credits/Units
Botany deals with a wide variety of organisms that are of great interest and are basic to our survival. This course covers the basic biology of plants, emphasizing evolution, ecology, taxonomy, physiology, plant breeding and horticulture to provide an overall understanding and appreciation of plant life. A survey of plants and plant-like organisms is presented in this general education, natural science, biology class.

BIOLOGY 20806219 Biology for Innovators 1 Credits/Units
This course introduces a variety of disciplines and associated careers in the biological sciences. Focusing on the laboratory practices that support biology innovation, students use technologies, lab practices and instrumentation common to applied biology settings. Students select an innovation, conduct literature research on the topic, and share results with peers.

BIOLOGY 20806226 Introduction To Human Biology 5 Credits/Units
This is an introductory course designed for students who want a laboratory science, but are not majoring in biology or going into health careers. It emphasizes the, structure of the human body and the functional interrelationships of the body's systems. Consideration is also given to human genetics, molecular biology, human evolution, ecology, and the role that humans play in the environment.

BIOLOGY 20806237 Plants, Parasites, and People 3 Credits/Units
The course explores interactions between society and plant-associated microbes. Topics include plant identification, plant diversity, ecological importance of plants, and societal importance of plants including food and agriculture, material and industrial uses (fiber, fuel, dye, brewing, etc.), plant diseases and their impacts, medicines, ethnobotany, etc.

BIOLOGY 20806238 Plants, Parasites and People Lab 1 Credits/Units
This class is the lab companion class to 20-806-237 Plants, Parasites, and People Lecture.

BIOLOGY 20806261 Human Nutrition 3 Credits/Units
This introductory course covers the biological basis of nutrition. Students will explore the function of nutrients as well as utilization of nutrients including digestion, metabolism, and excretion. Social and psychological factors will be discussed and include body wellness and fitness, nutritional needs across the lifespan, food safety & security, and eating disorders.

BIOLOGY 20806271 Cellular and Molecular Biology 5 Credits/Units
This course emphasizes the chemical basis of life and biological function at the molecular and cellular levels. Cellular and Molecular Biology (BIO 271) and Organismal Biology (BIO 272) are a robust two semester sequence for biological science majors. The courses can be taken in any order.

BIOLOGY 20806272 Organismal Biology 5 Credits/Units
This course explores a broad range of principals in organismal biology with a primary emphasis on evolution, plant physiology, and ecology. Organismal Biology (BIO 272) and Cellular and Molecular Biology (BIO 271) are a robust two-semester sequence for biological science majors. The courses can be taken in any order.

BIOLOGY 20806274 General Microbiology 5 Credits/Units
General Microbiology gives a broad overview of the structure, function, ecology, nutrition, physiology and genetics of microorganisms. The course looks at the many roles microorganisms play in our lives, including their association with various diseases (including cancer), and the importance of the human microbiome. The course also covers microbial fermentation and recombinant DNA technologies. Due to the constantly changing information as to how microbes play a vital role in our everyday lives, this course is regularly updated.

BIOLOGY 20806276 Principles of Genetics 4 Credits/Units
An introduction to the basic concepts of heredity and cytogenetics including Mendelian, molecular, developmental, and population genetics, genetic engineering and chromosome behavior. Topics include complementation and linkage analysis, gene mapping, library screening, bacterial transformation, plaque assay, restriction analysis, PCR, and sequencing. Lab complements the lecture and provides experiences in molecular genetics laboratory techniques as well as utilization of analytical and simulation model systems.

BIOLOGY 20806280 Environmental Issues 3 Credits/Units
Environmental Issues is an introductory, non-laboratory survey course, where we explore the diverse impacts of humans and human society on natural systems. Though fundamentally grounded in the basic principles of biology and ecology, this course is designed to encourage you to consider interdisciplinary approaches to crucial environmental problems, including biological, chemical, political, and ethical interactions between humans and the environment.

BIOLOGY 20806281 Biodiversity and Conservation Biology 3 Credits/Units
Conservation biology is an interdisciplinary field to protect biodiversity. We examine strategies for conserving biodiversity and discuss the application to global society. Objectives include investigating and describing biodiversity, understanding the effects of humans on species, and developing practical approaches to protecting and restoring biodiversity.

BIOLOGY 20806282 General Ecology 3 Credits/Units
Ecology is the study of the complex relationships among living organisms and between organisms and their environment. We explore the application of ecological principles to individuals, populations, biological communities, ecosystems, and the biosphere.

BIOLOGY 20806283 General Ecology Lab 1 Credits/Units
This class is the lab companion class to 20-806-282 General Ecology.

Madison Area Technical College

BIOLOGY 20806286 **Environmental Science** **4 Credits/Units**

This is an introductory course designed to present basic principles of biology. Students will also become familiar with the nature of science, basic biochemistry concepts, and the structure and function of a cell. The course is designed to prepare students for more advanced biology courses required for biology majors and medical programs.

BIOTECH 10007103 **Biotechnology Laboratory Skills for a Regulated Workplace** **3 Credits/Units**

Covers basic concepts and techniques necessary to work effectively in a biotechnology lab. The importance of quality regulations and standards and the role of the technician in producing quality results are emphasized. Laboratory math is introduced and applied. Students learn basic techniques including: measuring, weighing, mixing solutions, following and writing procedures, keeping records, making observations, and using instrument manuals and catalogues. Principles of metrology (measurement) are introduced and students practice using, calibrating and verifying the performance of instruments. Lab included. Co-requisite: 10-806-127 or 10-806-134, and 10-007-136 or consent of instructor.

BIOTECH 10007104 **Chromatography Techniques** **3 Credits/Units**

Introduces the basic concepts involved in separation of biomolecules. Students complete lab work using a variety of chromatographic methods including: paper, thin layer, gel permeation, gas and high performance liquid chromatography. Students also learn to interpret chromatographic results and practice documentation and reporting skills. Lab included.

BIOTECH 10007105 **Bioprocess Technology** **3 Credits/Units**

Covers basic techniques of fermentation technology, including the principles of isolation, identification, improvement, preservation and growth of industrial microorganisms. Emphasizes the use of fermentation equipment to obtain products.

BIOTECH 10007108 **Hazardous Materials - Biotechnology** **1 Credits/Units**

Surveys potential laboratory hazards and safety procedures. Covers regulation of chemicals: flammable, reactive, corrosive and toxic substances.

BIOTECH 10007110 **Biotechnology Applications** **1 Credits/Units**

Provides a broad introduction to biotechnology including the scientific basis of the technologies and their historical development with an emphasis on current applications in the areas of agriculture, medicine, forensics and the environment.

BIOTECH 10007111 **Biotechnology Career Seminar** **1 Credits/Units**

Includes a discussion of national, state and local biotechnology industries, career options, the ethical, legal and societal issues raised by the use of biotechnology and the regulatory agencies that oversee the industry.

BIOTECH 10007112 **Biotechnology Employment Skills** **1 Credits/Units**

Discusses the specific skills needed for particular areas and careers, ethical issues and the business of biotechnology including the basics of intellectual property law. Each student gives a presentation on their occupational work experience.

BIOTECH 10007115 **General Cell Biology** **4 Credits/Units**

Introduction to cells, emphasizing their structure, diversity, chemistry and physiology. Processes of cellular respiration, photosynthesis and division are discussed. Describes genetic principles and molecular activities involved in DNA, RNA and protein synthesis. Lab included.

BIOTECH 10007117 **Advanced Human Stem Cell Methods** **3 Credits/Units**

Students will continue to maintain and characterize the hESC embryoid bodies generated in Course I. Observations and relevance for spontaneous hESC differentiation will be discussed in detail. Methods for directed differentiation of hESC, iPSC, and adult stem cells into neurons and cardiomyocytes will be introduced. An emphasis on photo-documentation and assembly of a portfolio of results and observations will be submitted for evaluation.

BIOTECH 10007118 **Introduction to Human Stem Cell Concepts** **1 Credits/Units**

Provides an historical perspective on the identification and use of stem cells, emphasizing practical applications towards regenerative biology in research and industry. Review and discuss scientific articles that establish the foundation for working with stem cells for regenerative medicine, applied and basic research. Prerequisite: General Cell Biology, 10-007-115, or consent of instructor.

BIOTECH 10007119 **Advanced Human Stem Cell Concepts** **1 Credits/Units**

Introduction of emerging methodologies in the stem cell field, to include adult stem cells, iPSC technologies, relevant cell signaling pathways, and cell differentiation. Current research and industry applications will be discussed. Survey the scientific and popular press to introduce emerging themes and applications in the field of stem cells. Prerequisite: Introduction to Human Stem Cell Concepts, 10-007-118, and General Cell Biology, 10-007-115, or consent of instructor.

BIOTECH 10007121 **Applied Biochemistry** **3 Credits/Units**

Introduction to major chemical constituents of cells including proteins, carbohydrates, lipids and nucleic acids. The structure and kinetics of enzymes, reaction mechanisms and metabolic pathways are also included. Lab included.

Madison Area Technical College

BIOTECH 10007122 Protein Bioseparations Methods 3 Credits/Units

Introduces the strategies to purify proteins as part of a biotechnology process. Methods include: specific activity assays for enzymes, extraction of proteins from bacterial cells, salting out, dialysis, ion exchange chromatography and polyacrylamide gel electrophoresis. Lab included. Prerequisites: Biotechnology Labatory Skills, 10-007-103; Chromatography Techniques, 10-007-104; and Chemistry 2, 10-806-129 (or Chemistry for Biotechnology, 20-806-216); or consent of instructor.

BIOTECH 10007123 Cell Culturing 3 Credits/Units

Covers the basic techniques of plant and animal cell culture. Plant unit includes media preparation isolation of explants and establishment of callus from suspension cultures, growth factor bioassays, regeneration of whole plants from tissue and plant genetic engineering techniques. Mammalian cell unit includes media preparation, maintenance of cultured cells, transfection of cultured cells, cloning, monoclonal antibody production, and ELISA assays. Lab included. Prerequisite: 10-007-115 or consent of instructor.

BIOTECH 10007124 Molecular Biology 1 3 Credits/Units

This is the first course of a two-part series. This course will teach modern molecular biology techniques including: basic recombinant DNA techniques and DNA analysis and purification. The polymerase chain reaction and DNA fingerprinting will also be introduced. This course will include classroom instruction to appreciate the importance of these techniques in life sciences research.

BIOTECH 10007125 Research Methods in Molecular Biology 3 Credits/Units

This is the second course of a two-part series. This course will teach advanced techniques in molecular biology including: Various applications of PCR, PCR-based cloning, RT-PCR, qPCR, site-directed mutagenesis, RNA isolation, screening techniques, and an introduction to bioinformatics. The course will combine practical laboratory experience with discussion of current research problems and techniques.

BIOTECH 10007126 Occupational Work Experience 3 Credits/Units

Students work in a biotechnology laboratory. Emphasizes the integration of academics and practice experiences. Pre-requisite: successful completion of all program courses in the first three semesters of the program, successful completion of a performance exam, and instructor consent.

BIOTECH 10007135 Applied Chemistry for Biotechnology 4 Credits/Units

This course covers topics in organic chemistry, biochemistry and physical chemistry with an emphasis on their application in the biotechnology laboratory. Applied examples will be used from the fields of drug delivery, gene delivery, biopolymers, food chemistry and medicinal chemistry, to illustrate broader concepts such as intermolecular interactions, acid/base equilibria, thermodynamics and kinetics. Laboratory is included.

BIOTECH 10007136 Laboratory Math for Biotechnology 1 Credits/Units

This course introduces mathematical tools that are used in the biotechnology laboratory. Students apply mathematical concepts to solve problems such as: calculating amounts of chemicals required to make solutions, graphing and interpreting data, and calibrating instruments. Basic statistical concepts may also be introduced.

BIOTECH 10007137 Selected Topics in HPLC 1 Credits/Units

The course covers fundamental concepts of HPLC analysis including hardware basics, analysis modes, column chemistry, sample preparation and quantitation, as well as protein analysis and peptide mapping. Troubleshooting, interrogation of poor peak shape and retention problems are a fundamentally important part of the course, as well as method validation and data analysis.

BIOTECH 10007152 Making Biotech Products in a Quality Environment 2 Credits/Units

Proposed to review and further illustrate the importance of quality in a laboratory environment, with special emphasis on how a quality system directly impacts laboratory scientists. This laboratory-based course will revolve around the creation of a product to be used in other courses in the biotechnology curriculum. Students will create the product, as well as monitor the quality of the process. Time constraints would mean that not every aspect of a quality system could be modeled or discussed; however, even a single course in this area would be invaluable to our students for both review of concepts and employability.

BIOTECH 10007155 Quality Regulations and Standards for Biotechnology 2 Credits/Units

This course will cover the history of quality systems (cGMP, GLP, GCP, ISO 9000) and their implementation in the workplace. Emphasis will be placed on the impact of these quality systems on the laboratory technician. Students will also have the opportunity to study regulations and examine the process of disciplinary action under these systems. Current case studies will illustrate the role of governmental and non-governmental oversight in ensuring the quality of the products of regulated workplaces.

BIOTECH 10007174 Applied Microbiology 4 Credits/Units

This survey course includes the structure, function, ecology, nutrition, physiology, and genetics of microorganisms in industrial, agricultural, food and medical microbiology. It also includes an introduction to standard techniques and procedures used in the microbiology laboratory.

Madison Area Technical College

BRCKMSN 50408710 Bricklaying Basics 1st Year 1.5 Credits/Units

This course introduces the masonry apprentice to the tools of the trade. Care and proper use of tools is emphasized. Mixing mortar, as well as the types of mortars, their strengths, properties, and uses are also stressed. The various types of masonry materials are covered, including how they are manufactured. Techniques covering workmanship and trade practices play a key role in this course, as well as an introduction to technical aspects of the masonry trade.

BRCKMSN 50408711 Bricklaying Intermediate 2nd Year 1 Credits/Units

This course continues skills in care and proper use of tools is emphasized. Mixing mortar, as well as the types of mortars, their strengths, properties, and uses are also stressed. The various types of masonry materials are covered, including how they are manufactured. Techniques covering workmanship and trade practices play a key role in this course, as well as an introduction to technical aspects of the masonry trade.

BRCKMSN 50408712 Bricklaying Advanced 3rd Year 1 Credits/Units

This course continues skills in care and proper use of tools is emphasized. Mixing mortar, as well as the types of mortars, their strengths, properties, and uses are also stressed. The various types of masonry materials are covered, including how they are manufactured. Techniques covering workmanship and trade practices play a key role in this course, as well as an introduction to technical aspects of the masonry trade.

BRCKMSN 50408713 Safety Tools and Equipment 0.5 Credits/Units

This course will introduce the learner to OSHA safety standards as it relates to the masonry trade. Emphasis will be placed on scaffolding regulations and guidelines. Interpreting Material Safety Data Sheets(MSDS) for pertinent information on materials used on the jobsite will also be addressed. The learner will also be introduced to safety and maintenance of hand and power tools, in addition to personal protective equipment. Overall jobsite safety is stressed.

BRCKMSN 50408714 Practical Math for Bricklayers 1.25 Credits/Units

This course will introduce the learner to mathematical formulas and equations that are essential and specific to the masonry trade. This course provides the learner with practical mathematical and technical aspects necessary to meet and accept the responsibility of being a mason.

BRCKMSN 50408715 Blueprint Reading for Bricklayers 1 Credits/Units

This course provides instruction in print reading as applied to the masonry trade. Students are introduced to working drawings and their development. Focus is placed on line and symbol identification, dimensions and scale, abbreviations, and specifications. Emphasis is placed on the different types of drawings in a set of blueprints, and the information contained in them. Successful completion of this course will provide the student with a solid understanding of blueprints and specifications relating to the masonry trade.

BRCKMSN 50408716 Advanced Blueprint Reading for Bricklayers 1 Credits/Units

This course is intended for use by advanced apprentices or journey-level workers to hone their skills in blueprint reading. The training materials consist of blueprints and specifications for typical commercial buildings that have been built in the state of Wisconsin. Emphasis is placed on locating key information relating to the masonry construction of a given building using the actual blueprints and specifications.

BRCKMSN 50408717 Materials of Construction for Bricklayers 1 Credits/Units

This course introduces the learner to a variety of construction methods using various building materials. The learner will receive instruction that will enable them to interpret a "Master Format", as well as analyze different foundation types. Emphasis is placed on the primary differences in construction methods that exist involving different building materials.

BRCKMSN 50408718 Basic Shop Sketching for Bricklayers 0.5 Credits/Units

This course provides the learner with instruction in basic shop sketching and drawing. The different types of drawings used in prints are emphasized. The learner will through instruction and practice, be able to make consistent line quality with a pencil, as well as draw basic isometric, oblique, orthographic, and perspective sketches.

BRCKMSN 50408719 Job Planning and Layout for Bricklayers 1 Credits/Units

This course will introduce the learner to identify the differences in labor versus material costs as it relates to planning a construction job. Emphasis will also be placed on job practices that will increase a bricklayers productivity. Bench marks, batter boards, transit set up and use will also be addressed in this course as it relates to building layout. Methods for establishing corners, heights, and laying out bond for walls will also be highlighted. Primary emphasis of this course will focus on the masonry trade.

BRCKMSN 50408720 State and Local Codes for Bricklaying 0.5 Credits/Units

This course will instruct the learner on the use of the Wisconsin Administrative Code book, as well as local codes and ordinances. Emphasis will be placed on locating and applying State Codes to the construction process.

BRCKMSN 50408721 Quantity Survey for Bricklayers 1 Credits/Units

This course introduces students to basic methods of estimating building materials and develops a system for doing quantity surveys. Estimates commonly used in mathematics and masonry are emphasized.

Madison Area Technical College

BRCKMSN 50408722 Computer Basics for Bricklayers 0.5 Credits/Units
This course will instruct the learner in basic computer use. Emphasis will be paced on using the computer to access information, produce expense reports, create a document, and organize files and folders.

BRCKMSN 50408723 Economic Relations for Bricklayers 0.5 Credits/Units
This course will instruct the learner to analyze their financial situation, and deliver information that will assist them in setting personal financial goals and budgets. The learner will also receive instruction on obtaining personal credit, and analyzing investment strategies. The pros and cons of starting a business will also be addressed.

BUSADM 10102104 Business Statistics 3 Credits/Units
Introduces the theory of, and application to basic statistical methods. Emphasizes solving practical business problems. Topics include basic measures, probability, sampling, and time series analysis. Knowledge of Excel is strongly recommended.

BUSADM 10102114 Business Communication 3 Credits/Units
Develop, practice, and apply business and managerial communication skills. Class topics include active listening, concise communication, body language, social styles, managing difficult ("crucial") conversations and conflict, working with diverse others, negotiation, networking, persuasion, video conferencing, document sharing and conducting coaching/performance evaluations.

BUSADM 10102131 Change Management 3 Credits/Units
Extend learning from Project Management Fundamentals with a deeper understanding of change management models, tools, and principles. Enhance business value by realizing sustainable changes successfully. Assess the current change environment and develop strategies, deal with barriers, and analyze the effect of perceptions, attitudes, biases, and organization culture on project outputs and outcomes.

BUSADM 10102132 Strategic Leadership 3 Credits/Units
Gain insights from key leadership experts related to leading oneself, others, and change in organizations. Apply past learned insights and techniques to two simulations, a computerized business and a real-world failing one. Integrate key principles of strategic, financial, marketing and operations management by demonstrating competent managerial problem solving, decision-making and critical thinking. Enhance business perspectives while developing an ability to be a high-integrity, ethical leader.

BUSADM 10102133 Quality Management 3 Credits/Units
Build and refine operational management skills, to solve business problems with use of data analysis and research tools. Recommend strategies, and tactics, to improve and exceed customer expectations and apply tools to "listen to the customer." Tools include quality systems and continuous improvement, as well as Lean, Six Sigma, ISO, CQI, with an emphasis on their application to improve business processes.

BUSADM 10102134 Introduction to Business 3 Credits/Units
Explore concepts related to business strategy, marketing, operations, finance, and corporate culture, as well as their interrelationship within the organization. Expand understanding through case studies and a computer business simulation. Recognize the role of small businesses and their participation in international markets. Use an Ethics framework, further explored in upper-level Program classes, to promote and enforce ethical behavior.

BUSADM 10102135 Project Management Fundamentals 3 Credits/Units
Develop skills to manage a project from start to finish through teamwork. Class topics include project acceptance; defining, planning, scheduling, leading, monitoring, and controlling projects; and project closeout. Apply skills, both as a participant and a project leader, in case studies and group projects, using tools such as Microsoft Project, templates, charters, Gantt charts, critical paths, milestones, risk control and prioritization.

BUSADM 10102142 Business Management Internship 3 Credits/Units
Gain valuable experience and put the knowledge and skills learned from courses in the associate degree program into practice. Complete a 216-hour internship in a business setting supervised by a cooperating and approved employer. Outcomes for internship are determined by the intern, employer, and intern coordinator.

BUSADM 10102143 Organizational Management 3 Credits/Units
Learn why results and relationships are key to effective management, in the context of the traditional managerial elements of planning, organizing, directing, and controlling. Apply techniques for problem solving, critical thinking, decision-making, delegation, motivation, change management, and political savvy behavior to case studies, simulations, and activities. Self-assess Emotional Intelligence (EI) and apply techniques to improve EI. Manage tasks while working independently and/or remotely.

BUSADM 10102160 Business Law 1 3 Credits/Units
This survey course covers legal principles used in the business world. Major emphasis is placed on contracts along with torts, federal and state courts, criminal law, marital property and bankruptcy and wills. The course is taught on a level suitable for an associate degree student. Federal, state and case law serve as the basis of study.

CABMIL 31409101 Surfaces 1 1 Credits/Units
This course will take the learner through the process of fabricating a countertop with solid surface (Corian). Students learn about

the advantages and limitations of solid surface material in different applications, and types of adhesives for seaming and installation. Students will learn tooling and fabrication techniques for various edge treatments, fabricate a coved backsplash, make a cut-out for an appliance, as well as inlay and repairing solid surface.

CABMIL 31409328 **Woodworking 1A: Machinery & Methods** **2 Credits/Units**
Introduces the operation of traditional woodworking equipment. Students perform numerous exercises to gain familiarity with portable power tools and industrial woodworking machinery while building their skills and familiarity with wood. Units include layout, sawing, surfacing, boring, and sanding.

CABMIL 31409329 **Woodworking 1B: Machinery & Methods** **3 Credits/Units**
This course introduces the learner to the operation of traditional woodworking equipment. Students gain familiarity with portable power tools and industrial woodworking machinery while building their skills and familiarity with wood.

CABMIL 31409331 **Woodworking 2: Materials and Processes** **5 Credits/Units**
This course introduces the learner to face frame cabinetry construction methods while continuing to develop skills with woodworking machinery and tools. Students will also explore the specific properties of wood as a building material.

CABMIL 31409332 **Cabinetmaking, Millwork & Furniture 1** **5 Credits/Units**
Planning and execution of cabinet, millwork and furniture projects are explored in this class. Standards for kitchen cabinetry and design are applied as students work together in teams on a group project. Additional areas of study include: jigs and fixtures, 32mm cabinetmaking and leg and rail furniture.

CABMIL 31409333 **Cabinetmaking, Millwork, and Furniture 2** **5 Credits/Units**
Preparation for employment is emphasized in the final quarter of this program as students propose and execute a Leg and Rail final project. Students experience a real work environment while completing one or more job shadow opportunities with area employers. Areas of exploration include veneering, CNC technology, curved and circular work, and millwork manufacturing.

CABMIL 31409337 **Workplace Safety** **1 Credits/Units**
Workplace Safety introduces the learner to OSHA regulations, walking and working surfaces, egress and fire protection, Personal Protective Equipment, electrical safety, materials handling, and hazard communications in the workplace.

CABMIL 31409340 **Tool & Machine Maintenance** **1 Credits/Units**
Proper maintenance is essential in order to obtain accurate and repeatable results. This course focuses on keeping machinery in proper working order and maintaining sharp cutting tools. Students learn to troubleshoot problems and to establish routine maintenance procedures.

CABMIL 31409341 **Wood Finishing Applications and Methods** **1 Credits/Units**
Finishing is both an art and a science. This course demystifies the process of finishing wood and explores the materials used. Hand applied, brushed and sprayed finishes are covered. Proper finish selection and safe use of finishing products are emphasized.

CABMIL 31409342 **Laminates 1** **1 Credits/Units**
This course will take the learner through the process of working with high pressure decorative laminate (plastic laminate). Students learn about selecting proper grades and textures of plastic laminate, types of adhesives, equipment, and tooling used for properly fabricating laminate products.

CABMIL 31409345 **Wood Finishing Processes and Colorants** **1 Credits/Units**
This course explores multi-step finishes, including stains, washcoats, and glazes. In addition, this course will expose students to methods for color matching and repairing damaged finishes.

CABMIL 31409350 **Cabinet Installation** **1 Credits/Units**
Designed to mimic a jobsite, this course will introduce the learner to various methods of installing face frame and frameless cabinetry and countertops into an existing space.

CABMIL 31409351 **Millwork Installation** **1 Credits/Units**
Introduces the learner to various methods of installing moulding, including running trim, casing, and crown.

CABMIL 31409381 **Drawing 1** **1 Credits/Units**
Drawing is essential for quickly and accurately communicating 3-dimensional ideas. This class will introduce the learner to sketching and hand drafting as they relate to woodworking occupations. Areas of instruction include sketching techniques, orthographic and isometric projection, and manual drafting.

CABMIL 31409382 **Drawing 2** **1 Credits/Units**

Building on concepts explored in Drawing 1, this course will provide further instruction in manual drafting as well as an introduction to Computer Aided Design (CAD).

Madison Area Technical College

CABMIL 31409383 **AutoCAD for Cabinet Drawing 1** **1 Credits/Units**
Expanding on concepts introduced in Drawing 1 & 2, this class builds competence in using AutoCAD as a tool to communicate. 32mm cabinetry, architectural layout and cabinet design are emphasized. Students learn to develop working drawings and details for cabinet, millwork and furniture projects.

CABMIL 31409384 **AutoCAD for Cabinet Drawing 2** **1 Credits/Units**
Expanding on concepts covered in AutoCAD for Cabinet Drawing 1, this course focus on developing proficiency with AutoCAD, as well as improving understanding of cabinetry and furniture design. Students learn to develop working drawings and details for cabinet, millwork and furniture projects.

CHEM 10806134 **General Chemistry** **4 Credits/Units**
This course covers the fundamentals of chemistry. Topics include: the metric system; problem solving; periodic relationships; chemical reactions; chemical equilibrium; acids bases and salts; and gas laws.

CHEM 10806186 **Intro to Biochemistry** **4 Credits/Units**
This course provides students with skills and knowledge of organic and biological chemistry necessary for application within Biotechnology, Nursing and other Allied Health careers. Emphasis is placed in recognizing the structure, physical properties and chemical reactions of organic molecules, body fluids, and acids. Additional emphasis is placed on biological functions and their relationships to enzymes, proteins, lipids, carbohydrates, and DNA. Prerequisite: General Chemistry, 10-806-134 with a "C" or better or high school chemistry with a "C" or better. PLEASE NOTE: While the title of this course is Introduction to Biochemistry, it includes very limited biochemistry content and an introduction to organic chemistry, similar to our Chemistry 806-201 course. If you need a "true" biochemistry course for transfer to a school or program, you should check with them before assuming that Introduction to Biochemistry 186 will suffice.

CHEM 20806209 **College Chemistry 1** **5 Credits/Units**
The first semester of a two-semester sequence in college chemistry that includes the topics of measurement, chemical nomenclature, chemical reactions and stoichiometry, atomic structure, gas laws, thermochemistry, chemical bonding and solution chemistry. This course is for students who need one or two semesters of what is typically considered freshman college chemistry. Laboratory work assists in understanding chemical concepts and developing problem-solving skills. Students may complete the year of general college chemistry with 20-806-212.

CHEM 20806212 **College Chemistry 2** **5 Credits/Units**
College Chemistry 2 is a continuation of 20-806-209. This course covers the principles and applications of organic chemistry, reaction kinetics, equilibrium, thermodynamics, electrochemistry, coordination compounds, nuclear chemistry and environmental chemistry. Lab activities explore traditional analytical chemistry techniques, making extensive use of computer-assisted data analysis. This course involves rigorous quantitative problem solving, and a solid mathematics background is recommended.

CHEM 20806256 **Organic Chemistry 1 Lecture** **4 Credits/Units**
The first semester of a two-semester organic chemistry sequence. Includes the electronic structure and bonding of atoms and molecules; the nomenclature, mechanisms, reactions and properties of the following classes of compounds - alkanes, alkenes, alkynes, alkyl halides, alcohols, ethers, thiols, and sulfides; instrumental (IR, NMR) methods of analysis and their interpretation. Includes a three hour per week laboratory component as well as four hours per week lecture/discussion.CrLfCrLfThe first semester of a two semester organic chemistry sequence. Includes the electronic structure and bonding of atoms and molecules; stereochemistry; acids and bases; oxidation and reduction; the nomenclature, reactions, and properties of the following classes of compounds - alkanes, alkenes, alkynes, alkyl halides, alcohols, ethers, and epoxides. Includes the theory and interpretation of IR spectrophotometry and mass spectrometry.

CHEM 20806257 **Organic Chemistry 2 Lecture** **4 Credits/Units**
Continuation of Organic Chemistry 1. Includes the theory and interpretation of NMR and UV-VIS spectrophotometry; the nomenclature, mechanisms, reactions and properties of the following classes of compounds alkadienes, aromatic, aldehydes, ketones, enols/enolates, carboxylic acids, carboxylic acid derivatives, amines, aryl halides, and phenols. Includes multiple-strip syntheses involving all organic classes of molecules. This course completes the lecture portion of 1-year long sequence of basic organic chemistry curriculum.?

CHEM 20806259 **Chemistry for Science and Engineering** **5 Credits/Units**
This is an accelerated chemistry course for science and engineering students with a strong chemistry background, and covers topics typical of a two-semester sequence, including: measurement, atomic theory, stoichiometry, molecular structure, states of matter, gas laws, intermolecular forces, solutions, kinetics, equilibrium, chemical thermodynamics, and electrochemistry.

CHEM 20806266 **Organic Chemistry 1 Lab** **2 Credits/Units**
This course covers traditional material taught in Organic Chemistry, as well as basic organic laboratory techniques, including correct

documentation of work in a laboratory notebook, thin layer chromatography, distillation, recrystallization and separations. It will also include various characterization techniques, including IR, gas chromatography, melting point determination, and refractometry. Lastly, it will cover many of the organic transformations and mechanisms covered in most basic organic chemistry lecture courses, including: substitution and elimination reactions, esterification, and a multi-step extractions. This course will also include a presentation component.

CHEM 20806267 Organic Chemistry 2 Lab 2 Credits/Units
This course covers traditional material taught in Organic Chemistry, as well as basic organic laboratory techniques, including correct documentation of work in a laboratory notebook, thin layer chromatography, distillation, recrystallization and separations. It will also include various characterization techniques, including NMR, IR, gas chromatography, melting point determination, and refractometry. Lastly, it will cover many of the organic transformations and mechanisms covered in most basic organic chemistry lecture courses, including polymerizationn, Diels-Alder, Aldol, Grignard syntheses, green chemistry, unknown characterization with multiple techniques and multi-step synthesis. This course will also include written and oral presentation components.

CHINESE 20802230 Intro to Mandarin Chinese 1 3 Credits/Units
Introduction to the fundamental phonetic system and grammar of standard spoken Chinese and written language including 400 Chinese characters. Focuses on the topics of daily life and promotes communicative skills in the context of Mandarin Chinese through interactive and cultural learning activities. Students learn modern standardized simplified Chinese characters rather than the more complex traditional characters.

CHINESE 20802231 Intro to Mandarin Chinese 2 3 Credits/Units
This course builds on the introduction to the fundamental phonetic system and grammar of standard spoken Chinese and written language and Chinese characters provided in Introduction to Mandarin Chinese I. This course will teach modern standardized simplified Chinese characters rather than the more complex traditional characters. The course will meet for four hours each week for three credits.

CHINESE 20802232 Mandarin Chinese 3 3 Credits/Units
Chinese 3 focuses on developing communication skills in Mandarin Chinese through more complex topics associated with daily life, culture and society. Students actively participate in interactive and cultural learning activities. Students narrate, describe, and predict events using extended discourse. Emphasis is on expanding vocabulary and understanding Chinese culture.

CIVILET 10607120 Methods In Civil Engineering 2 Credits/Units
An introductory engineering course that familiarizes students with the civil engineering and construction processes from project concept to completion. Provides new students opportunity to develop and improve their problem-solving skills and prepare for subsequent technical courses.

CIVILET 10607125 Intro To CAD for Civil Engineering 2 Credits/Units
This course introduces computer aided drafting (CAD) and will utilize software related to civil engineering design. This course will focus on: basic drawing techniques, creating and editing objects and text, proper utilization of layers, and creating blocks and templates.

CIVILET 10607133 Estimating 3 Credits/Units
Stresses estimating for general civil engineering work. Covers the preparation of detailed estimates as prepared by contractors for bidding purposes, the general estimate as prepared by engineers, and approximate estimates. Areas covered: highways, water and sewer lines, bridges, culverts, streets and general construction grading. Prerequisite: 10-607-177, fourth-semester standing or consent of instructor.

CIVILET 10607140 Strength of Materials for Civil Engineering 2 Credits/Units
An analysis of the principles of strength of materials as they apply to various fasteners, welded joints, beams and shafts through practical design and analysis problems. Topics covered include simple stresses, mechanical properties of materials, center of gravity, moment of inertia, shear force and bending diagrams and beam design. Related engineering analysis software is utilized throughout the course.

CIVILET 10607147 Civil Drawing 1 3 Credits/Units
Emphasis on development of graphical communication. Begins with basic manual drafting skills including line work, lettering, drafting tools use and free hand sketching of construction details. Transition in the last half of the semester to a CAD-based environment stressing geometric construction principles and simple engineering drawings.

CIVILET 10607148 Civil Drawing 2 2 Credits/Units
Applications-oriented class with CAD emphasis. More complex drawing projects including mapping, roadway design elements and structural detail applications. Drawing organization and standards, data conversion and sharing, third-party add-ins. Prerequisites: 10-607-147 and 10-607-156.

CIVILET 10607149 Aggregates And Concrete 2 Credits/Units

Introduces the fundamental principles of aggregates, Portland cement concrete and bituminous concrete. Emphasizes standards-based sampling and testing in laboratory and field environments. Tests are performed according to standards set by the American Society for Testing and Materials (ASTM) and American Association of State Highway and Transportation Officials (AASHTO).

Students communicate results in written reports. Prerequisites: 10-804-114, and 10-103-137.

CIVILET 10607155 Survey 1 3 Credits/Units
Basic measurement concepts, procedures, errors and computations underlying the technical aspects of surveying. Students use modern instrumentation to perform elevation, distance, and angular measurements. Coordinate geometry is introduced as a computational tool. Computations are done both manually and on computer using commercial software.

CIVILET 10607156 Survey 2 3 Credits/Units
Principles, computations and field methods, from design to stakeout, involved in three-dimensional curvilinear survey applications. AASHTO and WisDOT vertical and horizontal alignment standards; geometric and volumetric calculations. Field work reflecting different construction surveys are performed utilizing modern instrumentation. Prerequisite: 10-607-155. Corequisites: 10-607-147 and
10-804-107.

CIVILET 10607158 Survey 3 3 Credits/Units
Advanced concepts and procedures building on knowledge and skills attained in previous surveying classes. Concepts include geodetic applications, spatial reference systems, equipment adjustment, digital data collection and photogrammetry. Fieldwork includes total station calibration, control leveling, control network establishment and digital topographic data collection. Prerequisites: 10-607-156 and 10-607-147.

CIVILET 10607160 Soils 2 Credits/Units
Introduces the basic principles of soil mechanics and their application in engineering practice. Topics include soil composition and texture, subsurface investigation, classification, moisture-density relationships, permeability and seepage, consolidation, settlement, shear strength, lateral earth pressures, fundamentals of retaining structures, shallow and deep foundations, slope stability and erosion loss calculations.

CIVILET 10607161 Project 3 Credits/Units
Project-driven course through which civil engineering technicians gain firsthand experience with design by developing plans, specifications and reports for a "real-world" project while working in a team environment. Students present written and oral reports to reinforce technical communication skills. Prerequisites: 10-607-148 and 10-607-158. Corequisites: 10-607-133 and 10-607-182.

CIVILET 10607168 Land Surveying 1 3 Credits/Units
Covers legal principles relating to the creation of property boundaries. Examines rights and how they can be transferred whole or part, intentionally or not. Identifies specific Wisconsin statutes and administrative code requirements regarding boundary creation and measurement criteria. Writing descriptions minimizing ambiguities and potential common law interpretation. Prerequisite: 10-607-156 Survey 2.

CIVILET 10607171 Construction Materials 2 Credits/Units
Introduction to the design, specification and detailing of steel and reinforced concrete in typical civil engineering projects. Emphasis on infrastructural applications. Prerequisite: 10-607-160

CIVILET 10607172 Stormwater Management 2 Credits/Units
Introduces principles involved in the design of storm sewer systems, culverts, and detention/retention basins. Covers the basic concepts of hydraulics and hydrology. Pre-requisite: Third semester standing.

CIVILET 10607175 Land Surveying 2 3 Credits/Units
Covers the principles and practices of boundary re-establishment. Interpretation of written conveyances; principle of evidence; identification and effect of unwritten rights. Public Land System corner/line re-establishment and application in Wisconsin. Prerequisite: 10-607-156 Survey 2.

CIVILET 10607177 Legal Elements Engineering 2 Credits/Units
Emphasizes contract relationships. The first half of the semester is spent studying the elements of a valid contract along with a study of the court system. The remainder of the semester concentrates on specifications, contracting procedure and the relationship between the three main parties involved in a construction contract: owner, engineer and contractor. Other topics include professional liability, professional ethics, product liability, discharge and remedies for non-completion. Prerequisite: third-semester standing or consent of instructor

CIVILET 10607178 Statics and Mechanics for Civil Engineering 2 Credits/Units
Introduces students to the basics of statics. Learners study and analyze forces and loading conditions applied to structures and mechanical devices. Areas of study include resultant and equilibrant of forces, moments, nonconcurrent-coplanar forces (trusses), concurrent-noncoplanar forces and static friction. Related engineering analysis software will be utilized throughout the course.

CIVILET 10607179 Intro to Geographical Information Systems (GIS) 2 Credits/Units
Basic terminology and components of geographic information systems. Capturing and organizing spatial data; integrating graphic and tabular information. Using spatial relationships to answer geographic queries. Civil engineering applications of GIS technology.

CIVILET 10607182 Water Supply and Sewerage 2 Credits/Units

This course will provide the student with an understanding of the principles involved in the design of municipal water supply, municipal sanitary sewerage and private on-site waste treatment (POWTS) systems.

CIVILET 10607193 **Career Development** **1 Credits/Units**
Prepares students for work in a professional engineering environment by providing them with a knowledge and understanding of themselves and others. This course also guides students through the etiquette required for success in the job market and assists them in assembling the materials and information necessary for effective job applications and interviews.

COLLSUCC 20890200 **College Success** **3 Credits/Units**
This course provides learners with strategies to develop skills for success in college and in life. Learners will work on academic skills such as test taking, note taking, time management, reading, writing, memory, etc. Learners will also work on other success strategies such as personal responsibility, motivation, goal setting, interdependence, emotional intelligence, lifelong learning and self-awareness. Learners apply self-management techniques, explore resource management strategies, practice effective study skills strategies, and learn about ways to improve personal effectiveness.

COLLSUCC 20890201 **Study Skills** **1 Credits/Units**
This course provides learners with strategies to develop skills for success in college. There is a strong focus on academic skills which include test taking, note taking, reading along with other topics. Learners will apply self management techniques, explore resource management strategies, and practice study skills.

COLLSUCC 20890202 **Career Development** **1 Credits/Units**
This course provides learners with strategies to develop skills necessary to make satisfying career development decisions. Learners will have an opportunity to participate in self-awareness activities and standardized assessments that focus on the areas of personality, interests, skills, and values. In addition, this course will explore researching career paths, market research, planning, goal setting and decision making. Students will leave with a better understanding of themselves, career paths, and our current job market.

COMM 10801196 **Oral/Interpersonal Communication** **3 Credits/Units**
Focuses on developing effective listening techniques and verbal and nonverbal communication skills through oral presentation, group activity, and other projects. The study of self, conflict, and cultural contexts will be explored, as well as their impact on communication.

COMM 20810200 **Introduction to Communication Studies** **3 Credits/Units**
This course provides an introduction to Communication, both as an area of practice in various careers and a field of study to understand everyday life. In this course you will learn about the role of communication in families, friendships, and workplace relationships. You will also explore theories of Communication, conduct and evaluate research, and apply course concepts to real-life scenarios.

COMM 20810205 **Small Group & Interpersonal Communications** **3 Credits/Units**
This course explores verbal and nonverbal concepts, theories, and practical skills necessary to become competent in interpersonal and small group settings. Students explore dependent, independent and interdependent relationships with others in personal and work-related settings.

COMM 20810206 **Difficult Conversations** **3 Credits/Units**
In this course, you will develop the skills necessary to navigate conversations that are challenging, complicated, or downright unpleasant. We will discuss theories and practices of interpersonal communication, focusing on those that help us understand and manage these conversations. We will do this through readings and discussions as well as analysis and research.

COMPSCI 20804215 **Computer Science 1** **3 Credits/Units**
This course is intended for students with no programming experience. Topics include basic object construction, the compiling process, general formatting requirements, primitive types, assignments, expressions, logic constructs with if blocks, loops, methods, primitive arrays, arrays of objects, text input and output, a binary search algorithm, and testing and debugging.

COMPSCI 20804216 **Computer Science 2** **3 Credits/Units**
Topics covered include: inheritance, polymorphism, abstract classes, interfaces, exceptions, generics, singly-linked lists, stacks and queues via linked-lists, recursion, algorithm complexity, binary search, selection sort, insertion sort, quicksort, merge sort, binary search tree (BST) insertions, deletions, removals, in-order transversal, and heaps.

COMPSCI 20804217 **Introduction to Programming in Python** **3 Credits/Units**

This course is an introduction to computer programming in Python, with application to data analysis. It introduces computational thinking and computer programming using the Python language, along with the treatment, processing and visual communication of data. The analysis and presentation of real datasets are emphasized. No previous programming experience needed.

Madison Area Technical College

COMPSCI 20804270 **Data Structures and Algorithms** **4 Credits/Units**
This course is intended for students interested in pursuing a computer science major. It focuses on the use of data structures and the algorithms which are typically employed on these data structures. Topics include linked lists, stacks, queues, trees, heaps, hashing, searching, sorting, graphs, maps, recursion, and various forms of performance metrics.

COMPSOFT 10103121 **Microsoft Windows** **1 Credits/Units**
Introduces the Windows 10 operating system - the basis for working in many businesses or organizations. Learn and practice file management skills, work with common elements (start menu, taskbar, shortcuts, help and apps), use accessory programs, customize windows, and search for information. This course provides the foundational knowledge for anyone seeking to advance their skills in Microsoft 365/Office 2019. Students are required to have access to a computer that uses the Windows 10 operating system. Before enrolling, students must be competent in using the mouse, finding information on the internet, sending email messages with attachments, and adhering to file management practices. If lacking, students should enroll in the Basic Skills Education Course, "Computer Basics" prior to Windows 10.

COMPSOFT 10103133 **Excel Beginning** **1 Credits/Units**
Within the Microsoft Office Suite, Excel Beginning is an introduction to Microsoft Excel spreadsheet software used to effectively manage data to make better business decisions. Create and format worksheets and workbooks; analyze data using formulas and functions; create charts to display data visually. Work with functions such as SUM, IF, AND, OR, AVERAGE, MIN, MAX, COUNT, and Date functions. Prerequisite: Competency in Windows including file management skills.

COMPSOFT 10103145 **Access** **1 Credits/Units**
Within the Microsoft Office Suite, Microsoft Access database software can help manage your information, data, and records. In this beginning level course, students will create, edit, and manipulate databases, add tables to store and organize data, create relationships to take advantage of a relational database, perform queries to extract meaningful information, add calculations to tables and queries to determine values, create and use forms to assist with data entry and online data management, and develop reports for data analysis and reporting out to stakeholders. Students must be competent in Windows and have file management skills.

COMPSOFT 10103165 **Outlook** **1 Credits/Units**
Use Microsoft's messaging and personal information management program. Communicate by email; schedule appointments, meetings and events; manage the Inbox, contact lists, tasks, notes, and to-do lists; categorize and flag messages; track and archive messages; configure and customize Outlook; manage Outlook components; integrate Outlook options; create quick steps and rules; configure autoarchive settings, work with news feeds.

COMPSOFT 10103169 **Collaboration and Productivity Tools** **1 Credits/Units**
Learn, compare, and analyze the successful use of collaboration and social media tools used in organizations today. Organize notes, images, files, and correspondence with Microsoft OneNote; build a customized online calendar to track meetings and tasks; explore and participate in social media applications from a business perspective; examine video conferencing systems and take part in a live web meeting; utilize SharePoint to store and manage files. This course uses Microsoft Office 365/OneNote 2019.

COMPSOFT 10103186 **MS (Microsoft) Project** **2 Credits/Units**
Within the Microsoft Office Suite, Microsoft Project is a project management software used to plan a project, create a project schedule and Gantt Chart, communicate project information, assign resources and costs, track project progress through completion, and share project information with other programs. This course will use Microsoft Office 365/Project 2019.

Prerequisite: Competency in Windows including file management skills.

CONST 31410301 **Introduction to Construction** **5 Credits/Units**
This course provides instruction in the fundamentals of floor, wall, ceiling and roof framing. A variety of building methods are discussed in the context of current understanding of how buildings work and why they fail.

CONST 31410302 **Layout, Foundations and Concrete** **2 Credits/Units**
This course takes students through all that happens below the mudsill. We will locate a building on a lot, form up concrete footings and walls, mix and place concrete slabs, and dive into concrete science.

CONST 31410308 **Construction Industry Codes and Regulations** **2 Credits/Units**
Units of instruction include zoning requirements, residential and commercial building codes, sanitary regulations, permit applications, building permits and inspection procedures. Contract documents and office practice are also discussed. (Instructor consent required to enroll.)

CONST 31410309 **Plan Reading and Drawing** **1 Credits/Units**
This course provides instruction in the interpretation of construction drawings and documents. Specific areas of emphasis include architectural scale, symbols, abbreviations and specifications, and how drawings are translated to create the built world. Areas of

drawing instruction include sketching techniques, orthographic projection, and isometric drawings.

CONST 31410310 Materials and Estimating 2 1 Credits/Units
This course builds on material and estimating skills learned in Materials and Estimating 1. Students will create estimates using Excel spreadsheets. In the capstone project, students will create a bid for building one of the student project homes. The bid will then be used as the basis of a sales presentation delivered to professionals from the home building industry.

CONST 31410311 Commercial Construction 1 Credits/Units
This course focuses on techniques and materials used in commercial construction settings. By introducing common practices, it will help you determine if the commercial setting is right for you. It also identifies how to gain work in the commercial setting.

CONST 31410324 Remodeling Techniques 1 Credits/Units
Explores the differences between new building construction and remodeling existing buildings. Topics covered include site protection, safe demolition techniques, lead and asbestos hazards, removing existing walls, replacing windows and doors, and tying into the existing structure.

CONST 31410328 Construction Techniques 1 3 Credits/Units
Continues instruction on roof framing and introduces installation methods for roof shingles, windows and doors, soffits and fascia, exterior trim and siding. Deck building and stair construction are also included. Drainage planes and greener building techniques are also discussed.

CONST 31410329 Construction Techniques 2 5 Credits/Units
This course emphasizes interior finish including, but not necessarily limited to, installing wall board, hanging interior doors, installing interior trim, installing kitchen and bathroom cabinets, and completing a punch list.

CONST 31410337 Workplace Safety 1 Credits/Units
This course will cover several key areas of OSHA workplace safety, including: erection of ladders and scaffolds, HASCOM (Hazardous Materials Communication), selection and use of PPE (Personal Protective Equipment), proper machined guarding, and prevention of slips, trips and falls.

CONST 31410338 Nailin' It--Success in Construction & Remodeling 1 Credits/Units
This course introduces students to the skills needed to be a successful Construction & Remodeling student. It also gives students an introduction to construction careers, basic construction safety and a campus and program orientation. Students who complete this course with a C or better will have completed their College Success requirement towards the Construction program.

CONST 31410339 Construction and Remodeling Lab 4 Credits/Units
Students will practice carpentry skills learned in Introduction to Construction and Construction Techniques 1. They will continue to work, under faculty supervision, on the sheds and the home that they began in the fall semester. They may also complete a small remodeling project. Carpentry tasks will include framing, roofing, window and door installation and exterior finishing.

CONST 31410345 Materials and Estimating 1 1 Credits/Units
This course introduces students to using building plans to create materials and labor estimates. Material selection and methods for calculating labor rates will also be covered. (Instructor consent required to enroll.)

CONST 31410363 Building Science and Sustainability 1 Credits/Units
In order to design and build quality, energy efficient and resource efficient homes, it is important to understand the interaction of building systems. In this course, students explore the home as a system through the lens of the four control layers. Building more sustainable homes will be discussed.

CONST 31410379 Construction Math 1 Credits/Units
Construction Math is a review of basic mathematics that consists of an introduction to using a scientific calculator, order of operations, fractions, decimals, use of percentage, units of measurement including the metric system, the reading of analog instruments for length measurement, and practical plane geometry.

CONST 31410385 Introduction to 3D Computer Assisted Drafting 1 Credits/Units
In this course, students create three dimensional building models using Sketch Up and a building information modeling software such as Chief Architect. Those models will then be used to create construction documents.

CONST 31410410 Fundamentals of Construction 1 2 Credits/Units
This course provides an introduction to the identification, safe use, and care of hand and portable power tools. Lab work includes the construction of sawhorses using techniques learned in class. Students must also complete Fundamentals of Construction 2 (one credit) to fulfill the Fundamentals of Construction (total 3 credits) requirement for the Construction & Remodeling Program.

CONST 31410411 Fundamentals of Construction 2 1 Credits/Units
This course provides an introduction to the identification, safe use and care of hand and portable power tools, especially those used

for finish carpentry. Lab work includes the construction of cornhole games using techniques learned in class. This course fulfills the third and final credit of the Fundamentals of Construction program requirement for students in the Construction & Remodeling program.

COSMET 10502330 Cosmetology Concepts 1 Credits/Units
This orientation course is designed to maximize the students' understanding of the cosmetology program prior to first-term enrollment. Students are introduced to the industry and program competencies. Students will be assessed in their preparedness, technical skills, online learning management system, and abilities to increase the chance of successful program completion.

COSMET 31502310 Cosmetology Science & Infection Control 3 Credits/Units
Students perform safety, sanitation and infection control according to Wisconsin state statutes and cosmetology codes. Students study chemistry, trichology, microbiology, first aid, human anatomy, electricity, hair care, hair/scalp disorders and other theory based topics. Introduces students to a closed lab service setting on manikins, peers, and models.

COSMET 31502314 Basic Haircutting 3 Credits/Units
This course will introduce the tools used to cut hair in the cosmetology industry. Students learn the foundation of haircutting with an emphasis on safety, sanitation and infection control.

COSMET 31502315 Barber Haircutting 1 Credits/Units
This course introduces basic fundamentals of barber haircutting. Theory and practical applications are introduced including the proper use and care of cutting equipment.

COSMET 31502331 Basic Hair Color 4 Credits/Units
Students learn the foundation of color theory, the color wheel and its relation to the Law of Color. Students practice safety and sanitation procedures related to this subject by practicing proper applications and following manufacturers instructions.

COSMET 31502333 Nail Technology 2 Credits/Units
Students learn nail theory, structure, diseases and disorders. Students develop skills in performing basic natural nail services such as; manicures and pedicures while following safety and infection control procedures. This class does not include nail enhancements.

COSMET 31502335 Aesthetic & Makeup Artistry 2 Credits/Units
Students learn skin theory and analysis, structure and disorders. Students develop skills in performing basic facials, hair removal techniques, and makeup application while following safety and sanitation procedures.

COSMET 31502337 Chemical Texturizing 2 Credits/Units
Students perform techniques in chemical texturizing by using permanent waving and chemical relaxing products. Students understand how the hair is restructured chemically through the study of chemistry. Students practice client consultations and all safety and sanitation procedures.

COSMET 31502338 Long Hair, Natural Haircare, & Braiding 2 Credits/Units
Students apply their basic hair design skills by braiding, performing upstyles and textured hair designs. Long hair design also focuses on analysis, transformation, sculpted forms and the effects on all hair textures, wigs, hair extensions, and caring for them.

COSMET 31502339 Salon Business & Marketing 2 Credits/Units
Students develop skills in social media, direct marketing, retail sales and promotions. Students learn about business models, management and strategic plans in efforts to become an entrepreneur.

COSMET 31502346 Advanced Haircutting 2 Credits/Units
Advanced haircutting builds on the techniques used in cosmetology and barbering. Students learn the art of razor haircutting, dry haircutting, textured hair, blending and tapering with clippers and shears.

COSMET 31502358 State Board Review/Wisconsin Laws & Rules 3 Credits/Units
Review state board subjects in relation to Wisconsin cosmetology laws and code rules, in preparation for practical and written exams.

COSMET 31502360 Planning for Salon Services & Externship 1 Credits/Units
Introduction to client services in a licensed establishment. Students will develop their portfolios to interview with licensed businesses to be placed in their externship location.

COSMET 31502361 Basic Salon Externship 2 Credits/Units

Students will begin client services in the student salon. They will practice basic services, safety, and infection control. Students will be assessed by cosmetology instructors, interview with community-based licensed establishments, and placed into their externship location.

COSMET 31502362 Intermediate Salon Externship 2 Credits/Units

Students will continue salon services through an externship by performing practical skills outlined in WI Cosmetology Code 5, retail methodology, and infection control while working in a community-based licensed establishment under the supervision of a licensed cosmetologist.

COSMET 31502363 Advanced Salon Externship 2 Credits/Units
Students will complete salon services through an externship while working in a community-based licensed establishment under the supervision of a licensed cosmetologist.

COSMET 31502397 Hair Design 2 Credits/Units
Students learn the evolution of hair design studying historical and modern styles practicing techniques of wet and thermal styling. Students develop skills in, thermal curls, blow outs, roller sets, pin curls, and silk press.

COSMET 31502398 Client Relations 1 Credits/Units
Client relations builds on the communication and consultation skills of students while learning the importance of a professional image, hygiene, grooming, and ethics necessary to be a cosmetology industry employee. Students learn the basics about professional development and business management.

COSMET 31502441 Advanced Hair Color & Highlighting Techniques 2 Credits/Units
Students develop skills including advanced color trends, color corrections, foiling, foilyage, and balayage by using various hair lightening products to achieve the results by following manufacturer instructions while demonstrating safety protocols.

COSMET 50502521 Trichology, Bacteriology, Sterilization and Sanitation 2 Credits/Units
Examine topics related to the structure and disorders of the hair and scalp. Become familiar with the proper selection of shampoos, conditioners and treatments for providing hair care and scalp services. Study design decisions and become familiar with the techniques associated with basic hair cutting. Identify dexterity, procedures and techniques in hair cutting and hair styling needed to provide client satisfaction. Understand bacteriology and sanitation as it relates to providing hair care services. Introduction to cosmetology laws and rules.

COSMET 50502522 Hair Cutting, Design and Chemical Services 2 Credits/Units
Gain an understanding of hair cutting and receive and introduction to chemical services. Study the physical and chemical changes that must take place in all chemical services performed. Practice the application of chemicals and the placement of permanent wave rods to achieve the desired chemical services. Become familiar with use and care of tools used in a salon setting.

COSMET 50502523 Advanced Chemical Services and Salon Business 2 Credits/Units
Continued study of tools and equipment used in a salon setting. Learn about advanced chemical services including coloring and chemical texturizing. You will also study cosmetology salon industry business operations.

COSMET 50502524 Facial Anatomy, Skin & Nail Care, and State Regulations 2 Credits/Units
Learn to recognize various nail irregularities, disorders and diseases in order to determine when to continue service or refer the client to a physician. Practice different procedures that are used to provide nail care services. Study the anatomy of the face in order to be able to accurately perform related services. Become familiar with skin care, hair removal and make-up. Review barber/cosmetology laws and rules and its application to providing services to the client's in a safe and sanitary manner. Review for State Exam and the final exam for your apprenticeship training.

COSMET 50502525 Facial Anatomy, Skin, Shaving, and State Board Regulations 2 Credits/Units
Study the anatomy of the face in order to be able to accurately perform related services. Explore skin care and shaving techniques. Practice use, disposal, and disinfection of shaving tools. Review blood exposure, barber/cosmetology laws and rules and its application to providing services to the client's in a safe and sanitary manner. Review for State Exam and the final exam for your apprenticeship training.

CRIMJUST 10504105 Professional Development for Criminal Justice 3 Credits/Units
This course is designed for second year criminal justice students who are preparing to enter into the job search process. Prepares the student for the hiring process for a Criminal Justice career including applications, resumes, interviews, and hiring process standards. This course is also based on the Office of Community Oriented Policing, "Innovations in Police Recruitment and Hiring" manual?

CRIMJUST 10504143 Criminology for Law Enforcement 3 Credits/Units
Exposes criminal justice students to these questions: what is crime and why is it a problem? Focusing on those questions, the course will look at what is known about crime and how it is known. Also touches on crimes, criminals and theories, while focusing on the police in the criminal justice system. Prerequisite: completion of first-year courses

CRIMJUST 10504170 Introduction to Corrections - Criminal Justice 3 Credits/Units
Examines the concept of punishment and its form, functions, and enforcement throughout history, with an emphasis on the

operation, structure, clientele, and issues confronting the institutions, agencies, and programs encompassing the corrections system including jails, prisons, and probation and parole.

CRIMJUST 10504180 Internship 3 Credits/Units
Integrates learned classroom theory and skills with real-life experience under the direct supervision of practitioners. Students are placed within an agency to interact, observe and participate to a limited degree with practitioners during the performance of their regular duties. Students receive intense one-on-one instruction in developing useful skills based on field experience. Prerequisites: Instructor approval, completion of two semesters (30 credits and all 1st year core program courses) in the Criminal Justice Program and a 2.5 GPA. Travel to internship site is the responsibility of the student. Students may need to pass a criminal background examination by the supervising agency.

CRIMJUST 10504182 Disturbance Resolution Theory 3 Credits/Units
Explores disturbance resolution (also commonly known as use of force) theories in the US Criminal Justice System to include Wisconsin use of force legislation, policies, procedures, and de-escalation concepts and practices. Course also includes public perception and ethical considerations. Corresponding disturbance resolution case law will be explored. Disturbance resolution best practices will be analyzed across the criminal justice system to include corrections, the courts, and policing.

CRIMJUST 10504900 Introduction to Criminal Justice 3 Credits/Units
This course explores the Criminal Justice system while focusing specifically on the three primary components of that system: Law Enforcement, the Criminal Court system and the Corrections System.

In the Law Enforcement Unit, students will study the police and their role within the system and society-at-large while focusing between the roles and functions of federal, state and local law enforcement agencies. Learners will explore contemporary issues, police procedures, and ethical dilemmas to acquire critical insight.

In the Court System Unit, learners will distinguish between the roles and functions of court personnel and various courts with jurisdiction in Wisconsin and federal courts with jurisdiction throughout the United States.

In the Corrections Unit, students will examine the various ways that punishment and rehabilitation are practiced within the corrections system. Learners will study and discuss the five primary goals of sentencing and evaluate their application and success.

CRIMJUST 10504902 Criminal Law 3 Credits/Units
This course covers the evolution of substantive and procedural criminal law and its impact on society. Students will analyze the basic elements of criminal offenses and the fundamental concepts of due process and fairness underlying American criminal procedure both before and after arrest.

CRIMJUST 10504905 Report Writing 3 Credits/Units
In this course, the learner will explain the context of report writing, take effective field notes, organize information in reports, write narratives, describe what information should be included in certain types of reports, prepare for court, describe how to be an effective witness, and testify as a witness in court. This is part of the criminal justice courses.

CRIMJUST 10504906 Criminal Investigation Theory 3 Credits/Units
In this course, the learner will describe the role evidence plays in criminal investigations and prosecutions; apply the steps for processing crime scenes; apply appropriate strategies to locate, handle, and package evidentiary items; document the crime scene; recognize the unique investigative issues for crimes against life; apply appropriate strategies to secure the scene, collect and preserve evidence, and investigate a death; recognize the dynamics of victimization; apply knowledge of the definitions and responsibilities for law enforcement; apply appropriate interview techniques with adult or child victims; analyze the role of law enforcement in responding to domestic abuse; intervene and apply appropriate investigative strategies; respond to an officer-involved domestic violence incident; analyze the role of law enforcement in responding to sexual abuse; demonstrate investigative techniques in a simulated sexual assault case; and identify other resources that can assist in sexual assault cases. This is part of the criminal justice courses. Prerequisites: 10-504-902.

CRIMJUST 10504909 Foundations of Policing 3 Credits/Units
Examines the roles and functions of police; includes police history and organization, challenges and expectations within the field; addresses police operations and critical issues such as technology, drug investigations and homeland security.

CRIMJUST 10504910 Diversity and Criminal Justice 3 Credits/Units
An examination of race in the context of the criminal justice system. Emphasis on the treatment of racial minorities as victims and offenders by law enforcement, courts, and corrections. The main purpose of this course is to assist students build their analytic and critical skills necessary to gain deeper, understanding of the important issues of race and the criminal justice system.

CRIMJUST 10504911 Interviewing 3 Credits/Units

Examines the principles of effective interviewing as applied to investigative reporting, research, persuasion, counseling, employment, and the investigation of crime. Addresses the theory and practice of interviewing and interrogation as applied to gaining information from complainants, witnesses, victims, informants, and suspects.

CRIMJUST 10504912 Ethics in Criminal Justice 3 Credits/Units

Ethical issues relevant to law enforcement, the courts, and corrections are examined.The basis for ethical dilemmas and decision making at all stages of the criminal justice system are presented. Actual ethical dilemmas are presented and analyzed for hands-on discussion and resolution. Topics include developing moral and ethical behavior, analyzing policy and management issues, professionalism, and ethics for practitioners in criminal justice.

CRIMJUST 10504913 Restorative Justice and Victimology in Criminal Justice 3 Credits/Units
This course focuses on the perspectives of restorative justice and the study of crime victims to include the nature, extent, and causes of crime and the implementation of restorative principles and practices. Emphasis will be placed on the underpinnings of victimology (to include patterns and trends), theoretical contributions, and the relationship among victimology and restorative justice in the criminal justice system. Philosophies and principles of restorative justice will include an analysis of those involved in restorative initiatives. Several restorative justice initiatives will be analyzed, practiced, and facilitated with a criminal justice organization.

CRIMJUST 10504914 Juvenile Justice 3 Credits/Units
Students in the course will examine the history of the juvenile justice system and the nature and extent of juvenile delinquency in the U.S. Students will also compare biological, psychological and sociological theories and analyze the impact of social issues related to delinquency. In addition to outlining case law regarding the legal rights of juveniles, students will distinguish between the roles of the Police, Juvenile Courts, and Juvenile Aftercare within the juvenile justice system and how they interact with and influence each other.

CRIMJUST 10504917 Police Community Relations 3 Credits/Units
This course examines the history of community policing, problem-oriented policing, community responsibilities, media relations, and evolving strategies. Students analyze criminal justice organizations including human resources management, research studies, environmental factors, centralized authority, and other issues.?

CRIMJUST 30504361 Basic Jail Officer Academy - Phase 1 3 Credits/Units
This course is Phase 1 of the jail officer basic training program mandated by the Wisconsin Department of Justice, Law Enforcement Standards Board and is designed to train officers in the day-to-day operations of a jail facility. They will also receive training in areas that enhance their ability to perform their duties as a jail officer. Training provided will often include, but not be limited to, the following topics: Admit and Release Inmates, Correctional Law, Health Care, Intro to Corrections, Officer Wellness, ?Maintain Jail Security, Professional Communication Skills, Principles of Subject Control, Reports.

CRIMJUST 30504362 Basic Jail Officer Academy - Phase 2 3 Credits/Units
This course is Phase 2 of the jail officer basic training program mandated by the Wisconsin Department of Justice, Law Enforcement Standards Board and is designed to train officers in the day-to-day operations of a jail facility. They will also receive training in areas that enhance their ability to perform their duties as a jail officer. Training provided will often include, but not be limited to, the following topics: CPR, Ethics, Fire Safety, Inmate Supervision and Behavior Control, Investigations, Hostage Response, POSC, Suicide Prevention, Supervision of Special Needs Inmate.

CRIMJUST 30504500 Overview of Patrol Response 2 Credits/Units
Through classroom lecture, and on-campus lab, and WI Department of Justice integration exercises students will learn and apply skills addressed in the following WI Department of Justice 720 Academy curriculum framework Phase I topics: Critical Thinking and Decision-Making, Basic Response (RESPOND), Radio Procedures, Introduction to TraCS, Traffic Law Enforcement I, First Aid, CPR/AED, and Naloxone/Narcan, and Physical Fitness. This course will also include the WI DOJ 720 Academy Integration Exercises.

CRIMJUST 30504501 Physical Fitness 1 Credits/Units
Through classroom lecture and on-campus lab students will apply Phases I-III Physical Fitness WI Department of Justice 720 Academy curriculum framework program requirements and Officer Wellness Suicide Prevention.

CRIMJUST 30504502 Application of Investigations 1 Credits/Units
Through classroom lecture, on-campus lab, and WI Department of Justice 720 Academy integration exercises students will learn and apply skills addressed in the following Phase III topics of the Department of Justice 720 Academy curriculum framework: Ethics II: Moral Reasoning and Professional Conduct, Cultural Competence II, Interrogations, Testifying in Court, Crimes III and Physical Evidence Collection.

CRIMJUST 30504503 Overview of Criminal Justice 1 Credits/Units
Through classroom lecture and WI Department of Justice 720 Academy integration exercises, students will learn and apply skills addressed in the following WI Department of Justice 720 Academy Phase I curriculum framework topics: Academy Orientation, Fundamentals of Criminal Justice, Ethics I, Cultural Competence, Agency Policy, and Professional Communication Skills I.

CRIMJUST 30504504 **Principles of Emergency Vehicle Response** **2 Credits/Units**
Through classroom lecture, and on-campus lab, and WI Department of Justice 720 Academy integration exercises students will learn and apply skills addressed in the following Department of Justice 720 Academy Phase II topics: Emergency Vehicle Operation and Control (EVOC) and Vehicle Contacts II.

CRIMJUST 30504505 **Sensitive Crimes** **2 Credits/Units**
Through classroom lecture, and on-campus lab and WI Department of Justice 720 Academy integration exercises, students will learn and apply skills addressed in the following Department of Justice 720 Academy curriculum framework Phase III topics: Domestics, Juvenile Law, Victims, Sexual Assault, and Child Maltreatment. The DOJ Phase III Written Examination will be administered in this course.

CRIMJUST 30504506 **Overview of Investigations** **2 Credits/Units**
Through classroom lecture, on-campus lab, and WI Department of Justice 720 Academy integration exercises students will learn and apply skills addressed in the following Department of Justice 720 Academy curriculum framework Phase I topics: Constitutional Law I, Crimes I, Interviews, and Report Writing I. The DOJ Phase I Written Examination will be administered in this course.

CRIMJUST 30504507 **Application of Traffic Response** **3 Credits/Units**
Through classroom lecture, and on-campus lab and WI Department of Justice integration exercises, students will learn and apply skills addressed in the following Phase III topics from the WI Department of Justice 720 Academy curriculum framework: Traffic Law Enforcement - Core and Radar, Traffic Crash Investigations & Incident Management, Operating a Motor Vehicle While Intoxicated (OMVWI), Standardized Field Sobriety Tests (SFST), Hazardous Materials and Weapons of Mass Destruction (WMD), Incident Command Systems and NIMS, and Report Writing.

CRIMJUST 30504508 **Principles of Investigations** **1 Credits/Units**
Through classroom lecture, and on-campus lab, and WI Department of Justice 720 Academy integration exercises students will learn and apply skills addressed in the following Phase II topics of the WI Department of Justice 720 Academy curriculum framework: Constitutional Law II, Physical Evidence Collection, and Crisis Management. The Phase II Written Exam will be given in this course.

CRIMJUST 30504509 **Principles of Tactics** **5 Credits/Units**
Through classroom lecture and on-campus lab and integration exercises, students will learn and apply skills addressed in the following Phase II topics from the Department of Justice 720 Academy curriculum frameworks including: Professional Communication Skills II, DAAT, Firearms II, Tactical Response, and Tactical Emergency Critical Care For Law Enforcement Officers.

CRIMJUST 30504510 **Overview of Tactics** **1 Credits/Units**
Through classroom lecture, and on-campus lab and WI Department of Justice 720 Academy integration exercises, students will learn and apply skills addressed in the following Department of Justice 720 Academy curriculum framework Phase I topics: Fundamentals of Firearms, Vehicle Contacts I, Officer Wellness I, and DAAT I.

CULARTS 10314130 **Dessert Plating** **2 Credits/Units**
Students learn the art of plating desserts in modern contemporary format. Working with various dessert components, students will gain a hands on experience on how to apply plating techniques to desserts.

CULARTS 10316101 **Principles of Sanitation** **1 Credits/Units**
Covers food service sanitation principles and the role of food service personnel in the prevention of contamination and food borne illness. Certification through the National Restaurant Association Educational Foundation is a requirement for completion and can be used to apply for state certification.

CULARTS 10316106 **Food Theory** **2 Credits/Units**
This course provides the opportunity for the learner to develop the knowledge, skills, and understanding of food preparation in commercial kitchens that will enhance their careers.

CULARTS 10316108 **Culinary Baking Fundamentals** **1 Credits/Units**
Provides a general understanding of basic baking principles and knowledge of the functions and appropriate usage of the major ingredients used in production baking. Different types of bakery products are classified according to their characteristics. Ingredient cost-outs are calculated.

CULARTS 10316111 **Professional Cooking 1** **4 Credits/Units**
Students will learn basic skill sets and foundation block of professional cooking in a practical environment. The class develops foundation skills that are used in every kitchen. Emphasis of the class is: sanitation, knife skills, heat transfer, protein cooking, working in teams, Mise en place, sauce production and starch cookery.

CULARTS 10316115 **Culinary Baking Lab** **2 Credits/Units**

Students will develop a foundation in baking principles through hands-on application in a modern baking lab using production equipment. Students will prepare a variety of standard bakery products to obtain knowledge about the many processes of baking.

CULARTS 10316120 Advanced Skills Lab 1 4 Credits/Units
Students learn, develop, and apply domestic and ethnic cooking techniques in a simulated restaurant environment common in full-service restaurants. Students will also learn to care for their on-premises environment.

CULARTS 10316121 Professional Cooking 2 4 Credits/Units
This lab course emphasizes the demands of running a kitchen, developing quality products, and sticking to details. Students will elevate their skills in heat transfer, sanitation, critical thinking, team work, and sauce production.

CULARTS 10316130 Advanced Skills Lab 2 4 Credits/Units
Building on Advanced Skills Lab 1, students will utilize up to date cooking techniques to focus on presentation, flavors, and time management while following industry standards to prepare high-end foods. Students will practice their skills a real-world working environment while also focusing on care of the lab environment.

CULARTS 10316132 Waitstaff Training 2 Credits/Units
Students will learn skills on providing high quality service to guests and the fundamental techniques of table service. Students will also gain insight on entering guest orders and interacting with the kitchen staff. They will be provided with management opportunities that will require critical thinking and decision making.

CULARTS 10316133 Garde Manger/Decorative Foods 2 Credits/Units
Through independent and group projects, students will solidify their understanding of Garde Manger principles and explore the intricacies of the cold kitchen. Students will gain hands-on experience in essential techniques including salads, sandwiches, sausage-making, charcuterie, pickles, and ice carving.

CULARTS 10316134 Cost Control 3 Credits/Units
Being successful in the culinary business involves analyzing costs related to products and services unique to the industry. Identify the components of cost control and revenue management, such as purchasing, receiving, inventory management, production, and waste. Learn about service and portion controls, labor costs, forecasting, scheduling, cash management, and revenue security.

CULARTS 10316135 Dining Room Operations 2 Credits/Units
This course focuses on the art of hospitality and service excellence. Students will develop leadership skills, coach and mentor staff, and master the fundamentals of table service. Through hands-on experience in a live restaurant, students will gain confidence, enhance communication skills, and make critical decisions to ensure guest satisfaction.

CULARTS 10316139 Catering 2 Credits/Units
This course provides a comprehensive overview of off-premises catering, equipping students with the knowledge and skills necessary to successfully plan and execute small and large-scale events. Topics include menu design, food production, venue selection, rental coordination, beverage planning, labor management, and contract negotiation. In their final project, students will apply their knowledge and skill by planning and coordinating a real-world off-premises catered event.

CULARTS 10316140 Menu Planning 1 Credits/Units
This course provides the fundamentals of menu planning. Topics include menu trends, the market survey, nutrition, menu planning, foodservice menus, yield tests, standard recipes, recipe costing, menu development and design, sale history, merchandising, and equipment analysis. Emphasis is placed on developing the skills necessary to effectively create a professional menu.

CULARTS 10316144 Global Studies Culinary - Italy 3 Credits/Units
This course provides the opportunity for the learner to develop the knowledge, skills, process and understanding of the International Slow Food Movement through attending a 3-day symposium in Turino, Italy. The course will take students through the largest outdoor market in Europe to purchase, plan, and construct a meal using local, sustainable organic products at a wine estate, converted into a 30-room agriturismo hotel. Day excursions will include tours and lectures and important wine-making facilities in the area.

CULARTS 10316152 Nutrition 1 Credits/Units
Provides information about nutrition as it applies to the food service industry. The six classes of nutrients are discussed as well as the latest guidelines set forth by governmental agencies and health organizations. Students learn about healthful cooking methods needed to modify and create menus for specific health concerns. The role of diet in disease prevention also is discussed.

CULARTS 10316158 Food Purchasing Analysis 1 Credits/Units
This course provides a comprehensive understanding of food and beverage purchasing for food service establishments, focusing on optimizing costs and maximizing profitability. By mastering these essential skills, students will be able to make informed decisions that positively impact the bottom line of any food service operation.

CULARTS 10316160 Pasture to Plate 3 Credits/Units

Studies the farm-to-table journey from pasture to plate. Develop a culinary philosophy that follows the life of the animal to the plate, addresses humane animal harvest, and maximizes usage of the whole carcass. Equate food with livestock and develop knowledge towards a sustainable end product.

CULARTS 10316161 Protein Identification, Fabrication, and Utilization 1 3 Credits/Units
Introduction to the muscle and bone structure of beef, veal, pork, lamb, game, and poultry; fabrication methods for sub-primal and foodservice cuts; and proper tying and trussing methods. Analyze national meat identification systems, carcass inspection, quality and yield grading, costing and yield testing, purchasing specifications, and the farm-to-table trail. Learn proper cooking methods for all meats, knife selection, and use of butchery equipment.

CULARTS 10316162 Slaughtering 3 Credits/Units
Witness how animals are transported, unloaded, and processed as part of a live animal slaughter; perform animal identification, and document the custody chain, including tagging and trace-ability information.

CULARTS 10316163 Protein Identification, Fabrication, and Utilization 2 3 Credits/Units
Identify animal carcasses and the process to cut, portion, label, and transfer meat to storage. Assess meat for quality and follow all safety and sanitation procedures. Determine process for highest value of meat, perform meat grinding, smoking, curing and brining. Create meat sausage and portion prepared meats. Use knife skills and maintain butchering equipment.

CULARTS 10316166 Mobile Harvest 3 Credits/Units
Students will gain insight on managing and safely operating a mobile harvest unit from a slaughter. They will understand mobile harvest unit care, expectations for operating the unit, and learn about state certification requirements for operation. Students will be expected to learn the safe means of slaughtering animals for harvest in the mobile unit, likely with the use of a firearm.

CULARTS 10316167 Charcuterie: Value-Added Products 3 Credits/Units
Students will prepare basic smoked meats and gain experience in dry curing and aged charcuterie products to be sold to the Madison College community. Students will prepare bacon, ham, sausage, terrines, galantines, ballotines, pâtés, and confit, primarily from pork and beef using cures, spices, and herbs from classical methods of modern-day methods under HACCP rules and regulations.

CULARTS 10316168 Retail Butcher Sales 3 Credits/Units
Participate in the sales of meat items produced from the Protein ID Fabrication 1 and 2 classes. Develop understanding in customer service, inventory, and pricing of meat to be sold. Following safe meat sales and understanding of sanitation as it relates to sales. Utilizing HACCP for any value-added items.

CULARTS 10316178 Americana Cuisine 2 Credits/Units
This course explores the diverse culinary landscape of the United States, highlighting the rich history and cultural significance of American regional cuisine. Students will prepare iconic dishes from around the country and experiment with modern interpretations of classic recipes. This course offers a comprehensive understanding of American foodways and the culinary techniques that define them.

CULARTS 10316189 Breakfast Cookery 1 Credits/Units
This course focuses on classic American breakfast dishes that emphasizes speed, efficiency, and customer satisfaction in a fast-paced, high-volume environment. Students will gain hands-on experience in a simulated diner setting through daily specials. Students will explore diverse breakfast offerings from home and around the world.

CULARTS 10316194 Culinary Internship 2 Credits/Units
The internship is designed to provide students with an opportunity to relate current educational material from the college classroom to practical experience under the direction of professionals in extended work assignments.

CULARTS 10316195 Hazard Analysis Critical Control Point (HACCP) for Business 2 Credits/Units
Butchers, chefs, and food manufacturing companies all need to have Hazard Analysis Critical Control Point (HACCP) plans if they are going to package goods to sell or utilizing specific cooking and storing techniques. The class will explore how to create, develop, and implement a useable HACCP plan.

DENTAST 10508121 EFDA Dental Procedures 3 Credits/Units
Placement and finishing of restorative materials and application of sealants and temporizations.

DENTAST 10508122 EFDA Preventative Procedures 1 Credits/Units
Provide preventative procedures including coronal polishing, application of topical fluoride, fluoride varnish and other topical agents.

DENTAST 10508123 EFDA Prosthodontic Procedures 2 Credits/Units
Learn how to adjust dentures and other removable appliances, pack cord, remove sutures and dressings.

DENTAST 10508124 **EFDA Clinical** **2 Credits/Units**

pply skills developed in Dental Procedures, Preventative Procedures and Prosthodontic procedures in a clinical setting with patients under the direct supervision of a dentist.

DENTAST 31508302 **Dental Chairside** **5 Credits/Units**

Prepares dental assistant students to chart oral cavity structures, dental pathology and restorations and to assist a dentist with basic dental procedures including examinations, pain control, amalgam restoration and cosmetic restoration. Student will also develop the ability to educate patients about preventive dentistry, brushing and flossing techniques, and dental procedures, using lay terminology. Throughout the course, students will apply decoding strategies to the correct use and interpretation of dental terminology. Prerequisites: completion of, or concurrent enrollment in, 10-508-101.

DENTAST 31508303 **Dental Materials** **2 Credits/Units**

Prepares dental auxiliary students to handle and prepare dental materials such as liners, bases, cements, amalgam, resin restorative materials, gypsum products, and impression materials. They also learn to take alginate impressions on manikins and clean removable appliances.

DENTAST 31508304 **Dental & General Anatomy** **2 Credits/Units**

Prepares dental assistant students to apply fundamentals of general and dental anatomy to informed decision making and to professional communication with colleagues and patients.

DENTAST 31508305 **Applied Dental Radiography** **2 Credits/Units**

Prepares dental auxiliary students to operate x-ray units and expose bitewing, periapical, extra oral and occlusal radiographs. Emphasis is placed on protection against x-ray hazards. Students also process, mount and evaluate radiographs for diagnostic value.

DENTAST 31508307 **Dental Assistant Professional** **1 Credits/Units**

Prepares dental assistant students for professional success in a dental practice or another dental health care environment. Students develop professional appearance and image. More importantly, they learn to work within ethical guidelines and legal frameworks. In preparation for entering the work force, dental assistants customize or develop their portfolios and lay out an on-going professional development plan. Prerequisite: acceptance into the Dental Assistant program.

DENTAST 31508312 **Dental Assistant Clinical Lab** **1 Credits/Units**

Students apply skills developed in Dental and General Anatomy, Dental Health Safety, Dental Chairside, Dental Materials, Dental Radiography, and Professionalism in on-campus, mock-clinical experience.

DENTAST 31508313 **Dental Assistant Clinical Experience** **2 Credits/Units**

Students apply skills developed in Dental and General Anatomy, Dental health Safety, Dental Chairside, Dental Materials, Dental Radiography, Professionalism in a clinical setting with patients. Emphasizes integration of core abilities and basic occupational skills.

DENTHYG 10508101 **Dental Health Safety** **1 Credits/Units**

Prepares dental auxiliary students to respond proactively to dental emergencies, control infection, prevent disease, adhere to OSHA Standards, and safely manage hazardous materials. Students also take patient vital signs and collect patient medica/dental histories. CPR certification is prerequisite: students will be required to show proof of certification before beginning the course.

DENTHYG 10508102 **Oral Anatomy, Embry, Histology** **4 Credits/Units**

Prepares Dental Hygienist students to apply detailed knowledge about oral anatomy to planning, implementation, assessment, and evaluation of patient care. Students identify distinguishing characteristics of normal and abnormal dental, head, and neck anatomy and its relationship to tooth development, eruption, and health.

DENTHYG 10508103 **Dental Radiography** **2 Credits/Units**

Prepares dental auxiliary students to operate x-ray units and expose bitewing, periapical, extra oral, and occlusal radiographs. Emphasis is placed on protection against x-ray hazards. Students also process, mount, and evaluate radiographs for diagnostic value. In this course students demonstrate competency on a manikin. In addition, students expose bitewing radiographs on a peer, role-play patient. Students gain further experience in exposing radiographs on patients in the clinical portion of their program. This course also provides the background in radiographic theory required for students to make informed decisions and adjustments. Pre-requisites: completion of, or concurrent enrollment in, Dental Health Safety, 10-508-101, and Dental and General Anatomy, 31-508-304.

DENTHYG 10508105 **Dental Hygiene Process 1** **4 Credits/Units**

Introduces Dental Hygiene students to the basic technical/clinical skills required of practicing Dental Hygienists include the use of basic dental equipment, examination of patients, and procedures within the dental unit. Under the direct supervision of an instructors, students integrate hands-on skills with entry-level critical thinking and problem-solving skills. The course also reinforces the application of Dental Health Safety skills.

Madison Area Technical College

DENTHYG 10508106 Dental Hygiene Process 2 4 Credits/Units

This clinical course builds on and expands the technical/clinical skills student dental hygienists began developing in Dental Hygiene Process 1. Under the direct supervision of an instructor, students apply patient care assessment, planning, implementation, and evaluation skills to provide comprehensive care for calculus case type 1 and 2 patients and perio case patients. This course also introduces the application of fluoride and desensitizing agents, whole mouth assessments, comprehensive periodontal examinations, application of sealants, and patient classification. Students also begin performing removal of supragingival stain, dental plaque, calcified accretions, and deposits. In addition, they gain further experience in exposing radiographs on patients.

DENTHYG 10508107 Dental Hygiene Ethics & Profes 1 Credits/Units

Helps student dental hygienists develop and apply high professional and ethical standards. Students apply the laws that govern the practice of dental hygiene to their work with patients, other members of a dental team and the community. Emphasis is placed on maintaining confidentiality and obtaining informed consent. Students enhance their ability to present a professional appearance.

DENTHYG 10508108 Periodontology 3 Credits/Units

This course prepares student dental hygienists to assess the periodontal health of patients, plan prevention and treatment of periodontal disease, and to evaluate the effectiveness of periodontal treatment plans. Emphasis is placed on the recognition of the signs and causes of periodontal dfisease and on selection of treatment modalities that minimize risk and restore periodontal health.

DENTHYG 10508109 Cariology 1 Credits/Units

This course focuses on the characteristics and contributing factors of dental decay. Dental Hygiene students help patients minimize caries risk by developing treatment plans, communicating methods to patients, and evaluating treatment results. Prerequisites: satisfactory completion of all first semester, second year Dental Hygiene courses and concurrent enrollment in 10-508-124.

DENTHYG 10508110 Nutrition and Dental Health 2 Credits/Units

Prepares student dental hygienists to counsel patients about diet and its impact on oral health. Students learn to distinguish between balanced and unbalanced diets and to construct diets that meet the needs of patients with compromised dental/oral health Students also learn to counsel patients about the effect of eating disorders on dental health.

DENTHYG 10508111 General and Oral Pathology 3 Credits/Units

This course prepares the student dental hygienist to determine when to consult, treat or refer clients with various disease, infection or physiological conditions. Students learn to recognize the signs, causes, and implications of common pathological conditions including inflammatory responses, immune disorders, genetic disorders, developmental disorders of tissues and cysts, oral tissue trauma, and neoplasm of the oral cavity.

DENTHYG 10508112 Dental Hygiene Process 3 5 Credits/Units

This clinical course builds on and expands the technical/clinical skill student dental hygienists developed in Dental Hygiene Process 2. In consultation with the instructor, students apply independent problem-solving skills in the course of providing comprehensive care for calculus case type 1, 2, and 3 patients and perio case type 0, I, II, and III patients. This also introduces root detoxification using hand and ultra-sonic instruments, a selection of dental implant prophylaxis treatment options, and administration of chemotherapeutic agents. Students also adapt care plans in order to accommodate patients with special needs.

DENTHYG 10508113 Dental Materials 2 Credits/Units

Prepares dental auxiliary students to handle and prepare dental materials such as liners, bases, cements, amalgam, resin restorative materials, gypsum products and impression materials. Students also learn to take alginate impressions and clean removable appliances. Prerequisites: completion of, or concurrent enrollment in Dental Health Safety (10-508-101).

DENTHYG 10508114 Dental Pharmacology 2 Credits/Units

Prepares student dental hygienists to select safe and effective patient premedication and within the scope of dental hygiene practice. Students will also learn to recognize potential pharmacological contraindications for specific patients and to take measures to avoid negative impact or alert other members of the dental team to possible negative impact.

DENTHYG 10508115 Community Dental Health 2 Credits/Units

This coruse prepares the Dental Hygienist student to play a proactive role in improving the dental health of community members of all ages. Students perform and interpret dental health research to determine community dental health needs.

DENTHYG 10508117 Dental Hygiene Process 4 4 Credits/Units

This clinical course builds on and expands the technical/clinical skills student dental hygienists developed in Dental Hygiene Process 3. With feedback from the instructor, students manage all aspects of cases in the course of providing comprehensive care for calculus case type 0, 1, 2, and 3 patients and for perio case type 0, I, II, and III patients. Emphasizes maximization of clinical efficiency and effectiveness. Prepares student dental hygienists to demonstrate their clinical skills in a formal examination situation.

DENTHYG 10508118 Dental Anxiety and Pain Management 2 Credits/Units

This course prepares the student dental hygienist to work within the scope of dental hygiene practice to manage anxiety and pain for dental patients. Students learn to prepare and administer local anesthesia and nitrous oxide safely. The course also addresses the recommendation of alternative pain control measures.

DENTHYG 10508304 **Dental & General Anatomy** **2 Credits/Units**
Prepares Dental Assistant students to apply fundamentals of general and dental anatomy to informed decision making and to professional communication with colleagues and patients. Prerequisites: acceptance into the Dental Assistant program.

DIESEL 10412100 **Diesel Shop Skills Fundamentals** **2 Credits/Units**
Introduction to shop procedures, safety practices, tools, equipment, and vehicles commonly found in a diesel and heavy equipment facility. Learn about the process for obtaining a Wisconsin Commercial Driver's License (CDL). Conducted in a shop environment.

DIESEL 10412110 **Metalworking for Heavy-Duty Applications** **2 Credits/Units**
This course focuses on welding and metal cutting safety as it applies to heavy-duty applications. Students will learn to setup and use welding and cutting equipment to weld and cut a variety of types and thicknesses of materials commonly used in heavy-duty applications. Skill development emphasis will be placed on cutting metal with oxy-fuel and plasma arc methods. Welding techniques and procedures for SMAW and GMAW will also be included. In addition, students will have the opportunity to demonstrate layout procedures and complete fabrication projects.

DIESEL 10412112 **Mobile Hydraulics** **3 Credits/Units**
Prepares the student with the knowledge and skills needed to test, adjust, service, and repair mobile hydraulic systems found on trucks and off-highway equipment. Also included is hydraulic schematic interpretation and tracing oil flow through hydraulic systems. Lab exercises include disassembly and assembly of various hydraulic components.

DIESEL 10412113 **Advanced Hydraulics and Hydrostatics** **3 Credits/Units**
Students will further inspect, test, service, diagnose, and adjust hydraulic and hydrostatic systems and components used in off-highway equipment. Students will conduct testing and adjustment procedures on load sensing, pressure and flow compensated, and pilot control systems.

DIESEL 10412125 **Cab Climate Control and Refrigeration Systems** **3 Credits/Units**
Lectures/labs provide skills to diagnose, maintain and service air conditioning and transport refrigeration equipment found on truck trailers and off-road equipment.

DIESEL 10412137 **Preventive Maintenance** **4 Credits/Units**
This course will provide the opportunity to perform preventive maintenance inspections and conduct minor repairs on heavy-duty trucks and equipment.

DIESEL 10412138 **Diesel Shop Management** **2 Credits/Units**
The student will gain the knowledge needed to function in a typical service department setting. The student will learn what it takes to manage a service department, the costs involved in running the department and the day-to-day problems that arise in the service department. General business operational procedures, record keeping and cost effectiveness will also be part of this course.

DIESEL 10412139 **Vehicle Inspection** **2 Credits/Units**
This course will provide an overview of the Federal Motor Carrier Safety Regulations as they relate to the inspection, repair, and maintenance of commercial motor vehicles. Students will inspect commercial motor vehicles and complete inspection documentation according to the Code of Federal Regulations Title 49, Parts 393, and Appendix A to Part 396.

DIESEL 10412144 **Fundamental Diesel Electrical/Electronics Systems** **3 Credits/Units**
Theory and laboratory experiences in this course are designed to introduce the student to the diesel electrical/electronic systems used on today's modern trucks and construction equipment. Fundamental theory of electricity and electronics, troubleshooting techniques, use of digital multimeter and current clamp, types of electrical circuits, wiring, components, batteries and the use of wiring diagrams will be covered.

DIESEL 10412145 **Electrical/Electronics Systems Diagnostics** **3 Credits/Units**
Theory and laboratory experiences in this course are designed to give the student the knowledge and skills needed to diagnose, service, and repair heavy-duty electrical systems found on today's modern trucks and off-road equipment.

DIESEL 10412155 **Heavy Duty Drivetrains** **4 Credits/Units**
This course prepares the student with the knowledge and skills needed to adjust, diagnose, maintain, service and repair heavy duty drivetrains found on trucks and construction equipment.

DIESEL 10412164 **Brake and Suspension Systems** **4 Credits/Units**
Prepares the student with the knowledge and skills needed to adjust, diagnose, service and repair heavy duty brakes and suspension systems. Students will also perform vehicle alignment procedures and utilize various alignment equipment.

DIESEL 10412175 **Fuel Systems** **2 Credits/Units**
This course will include overviews of mechanical and electronic fuel systems and their related components primarily found on diesel engines. Students will diagnose, service, and repair fuel systems equipped on both on-highway and off-highway applications. An overview of the relationship of the fuel system to the aftertreatment system will be discussed. Also included are safe work habits and

features of emerging alternative fuel sources.

DIESEL 10412177 Diesel Engine Diagnostics 3 Credits/Units
Lectures and labs use the latest in diagnostic equipment to evaluate engine performance and diagnose power complaints on mechanical and computer controlled diesel fuel injection systems.

DIESEL 10412184 Diesel Engine Technology 2 Credits/Units
Study in this course will allow the student to develop a basic knowledge of design, construction and operating principles of the diesel engine. Service, maintenance and the types of repairs made on diesel engines and diesel engine support systems will be a major emphasis of the course.

DIESEL 10412185 Diesel Engine Repair 4 Credits/Units
Teaches students to maintain, service and repair diesel engines and engine support systems. The course also includes precision measuring, failure analysis and parts inspection.

DIESEL 10412188 Electronic Control Systems 3 Credits/Units
This course provides the student with the experience needed to diagnose and service modern electronic control systems used on trucks and construction equipment. The course includes electronic controlled diesel engines, ABS brake systems, electronic controlled transmissions and other computer controlled electronic vehicle systems.

DIESEL 10412189 Heavy Duty Emission Control Systems 3 Credits/Units
Teaches students to maintain, service, and repair emission control systems found on heavy duty diesel and alternate fueled engines. The course also includes fault diagnosis, failure analysis, and component inspection for reusability.

DIESEL 10412190 Diesel Equipment Laboratory Experience 1 1 Credits/Units
Students service various trucks, construction and industrial equipment. Emphasizes daily shop operations, procedures and safe work habits. Simulated on-the-job experiences develop and apply students' knowledge and skills. Prerequisite: all first year courses.

DIESEL 10412195 Occupational Experience 1 - Diesel 2 Credits/Units
As interns, students work on electrical/electronic systems, vehicle and equipment maintenance, heavy duty brakes, suspensions, drive trains and general shop maintenance. Types of jobs and competencies employed may vary depending on what area of the industry the employer represents. Technical competencies for this course may be performed either alone, as an experienced technician's helper or a combination thereof. Prerequisites: all first year program courses.

DIESEL 10412255 Off-Highway Powertrain Systems 3 Credits/Units
Teaches students the operation, power flow, service, and repair of off-highway powertrain components such as clutches, torque converters, and various transmissions. Also included are axles, final drives, suspension, and braking systems used in off-highway equipment.

DIESEL 10412355 Advanced Off-Highway Electronics and Powertrain Systems 3 Credits/Units
This course will familiarize the student with diagnostic, troubleshooting, and repair techniques specific to off-highway equipment electronic and powertrain systems. Hands-on activities will allow the student to practice and demonstrate diagnostic procedures and repair techniques related to the electronic control systems, powertrain systems, and the operator interface.

DRAMA 20810230 Intro To Theatre 3 Credits/Units
This is a beginning study of theatre especially as it relates to modern audiences. Students will examine and experience theatre in its various forms. A survey of theatre history from a global perspective provides the foundation for a greater understanding and perspective of the art. This course is an opportunity to explore playwriting, acting, directing and design leading to critical analysis of production. Students are expected to analyze scripts and attend performances turning in written reviews. The sequence of this course begins with audience perspective layered with historical and performance perspectives.

DRAMA 20810235 Stagecraft 1 3 Credits/Units
Introduction to basic theater and event techniques, theories, terminology, and application of performance and entertainment production technology. Students will be trained in construction and the variable applications of stagecraft, installation and rigging, lighting, sound, and projection with specific focus on safety and best practices in the theater and entertainment industry.

DRAMA 20810238 Cultural Diversity in Contemporary American Theater 3 Credits/Units
Investigates the representation of gender, ageism, sexual identity and racial stereotypes in written and performance forms. Explores how popular images are created and reinforced by writers, directors, and performers. Students analyze performance, scripts, and video documentation, as well as develop an original work of theatrical expression.

DRAMA 20810246 Stage Technology Practicum 1 Credits/Units

The Stage Technology Practicum provides extensive hands-on training introduced in the Stagecraft 1 course, providing real-world experience technically supporting on-campus events, conferences, presentations, and performances.

DRAMA 20810260 Drama Practicum (1 cr) 1 Credits/Units
Drama Practicum is designed to engage and challenge students actively involved in theatre programming at Madison College or with a partner theatre organization from the community. This practicum stresses the self-development of artistic proficiency of theatre students. There is a minimum of 36 hours of service required for a 1 credit practicum.

DRAMA 20810261 Drama Practicum (2cr) 2 Credits/Units
Drama Practicum is designed to engage and challenge students actively involved in theatre programming at Madison College or with a partner theatre organization from the community. This practicum stresses the self-development of artistic proficiency of theatre students. A minimum of 72 service hours are required for the 2 credit practicum.

DRAMA 20810262 Acting 1 3 Credits/Units
Acting 1 is an introductory course exploring the fundamentals of acting and performance. This course emphasizes the actor's process in preparing for a role including character development, script analysis, theoretical study, and performance. Students will learn various acting techniques from a diverse range of perspectives.

DRAMA 20810263 Acting 2 3 Credits/Units
Continues the actor's preparation and execution of believable roles as a member of an ensemble. Particular attention is addressed to script analysis, character development, and ensemble performance in relation to theatrical genre.

DRAMA 20810270 Movement Theory & Training for Actors 1 Credits/Units
Movement Theory and Training for Actors is an introductory course designed to assist acting students to better understand physical movement, the relationship between training and energy, and the use of physical movement in character development.

EARLYCHL 10307108 ECE: Early Language and Literacy 3 Credits/Units
This course explores strategies to encourage the development of early language and literacy knowledge and skill building in children birth to 8 years of age. Learners will investigate the components of literacy including; literacy and a source of enjoyment, vocabulary and oral language, phonological awareness, knowledge of print, letters and words, comprehension and an understanding of books and other texts. Theories and philosophies regarding children's language and literacy development will be addressed. Dual language learning will be examined within the context of developmentally appropriate practices. Assessment tools for early language and literacy acquisition will be reviewed.

EARLYCHL 10307110 ECE: Social Studies, Art, and Music 3 Credits/Units
This 3-credit course will focus on beginning level curriculum development in the specific integrated content areas of social studies, art, music, & movement (SSAMM).

EARLYCHL 10307112 ECE: STEM (Science, Technology, Engineering, and Mathematics)3 Credits/Units
This final training experience includes 2 weeks of head teaching, stresses staff-parent communication and may be designed to coordinate with student's choices of career specializations.

EARLYCHL 10307115 ECE: Infant Toddler Capstone 3 Credits/Units
The capstone is the last course all students take prior to completing the Infant Toddler Credential. This course integrates the theory, practice, and reflection of courses 1-3 and requires demonstration of best practices. Supervised demonstration in the learner's own infant/toddler setting. Student portfolio development is required. Students must be in an early childhood setting with infants or toddlers during this course.

EARLYCHL 10307140 ECE: Behavior and Emotional Challenges 3 Credits/Units
The relationship we have with the family members will reflect on our ability to work successfully with a child. Building relationships 1) Helps each child feel accepted in the group; 2) Assists children in learning to communicate and get along with others; 3) Encourages feelings of empathy and mutual respect among children and adults and 4) Provides a supportive environment in which children can learn and practice appropriate and acceptable behaviors as individuals and as a group.

EARLYCHL 10307141 ECE: Special Healthcare Needs 3 Credits/Units
This course covers a wide variety of special health care needs that play significant roles in the lives of both children and their families. Parents will be able to supplement what you know, lead you to good resources, and provide the training and support that you need. It can be uncomfortable to ask, but it is more uncomfortable not to have the answers! Parents trust you with one of the most important things in their lives - their child. View parents as a partner in the care of their child.

EARLYCHL 10307142 ECE: Inclusion Capstone Family and Team Centered Practices 3 Credits/Units

Examine family and team-centered practices to further enhance your ability to work with children who have disabilities, their families, and other service providers. This course will spend time with a child in the community in their home, school, childcare, grocery store, medical settings, etc. You are offered the opportunity to deeply explore the perspectives of the various people involved in this child's life as well as the service delivery systems available to the child and family.

EARLYCHL 10307148 ECE: Foundations of Early Childhood Education 3 Credits/Units
This 3-credit course introduces you to the early childhood profession. Course competencies include: explore the concepts of

diversity, cultural responsiveness, and anti-bias as it relates to early childhood education, investigate the history of early childhood education, examine regulatory requirements for early childhood education programs in WI, summarize types of early childhood education settings, identify the components of a quality early childhood education program, summarize responsibilities of early childhood education professionals, explore early childhood curriculum models and examine the critical role of play as it relates to developmentally appropriate practice.

EARLYCHL 10307151 ECE: Infant & Toddler Development 3 Credits/Units
In this 3-credit course you will study infant and toddler development as it applies to an early childhood education setting. Course competencies include: integrate strategies that support diversity, cultural responsiveness, and anti-bias perspectives; analyze development of infants and toddlers (conception to thirty-six months); correlate prenatal and postnatal conditions with development; summarize child development theories; analyze the role of heredity and the environment; examine culturally and developmentally appropriate environments for infants and toddlers, examine the role of brain development in early learning (conception through thirty-six months); examine caregiving routines as curriculum; and examine developmental and environmental assessment strategies for infants and toddlers.

EARLYCHL 10307160 ECE: Field Experience 1 3 Credits/Units
This introductory field experience course, introduces the foundations of early childhood education under guided supervision of a mentor teacher in an early childhood setting, working with children birth through age 8. This course meets the requirements for the Wisconsin Model Early Learning Standards 18-hour training.

EARLYCHL 10307167 ECE: Health, Safety, & Nutrition 3 Credits/Units
This course examines the topics of health, safety and nutrition within the context of the early childhood educational setting. Course competencies include: follow governmental regulations and professional standards as they apply to health, safety and nutrition; provide a safe, healthy, and nutritionally sound early childhood program; adhere to child abuse and neglect mandates; apply Sudden Infant Death Syndrome (SIDS) risk reduction strategies; incorporate health, safety and nutrition concepts into the children's curriculum.

EARLYCHL 10307169 ECE: Infant Toddler Group Care 3 Credits/Units
This course focuses on caring for infants and toddlers in center based and family child care settings. Materials will cover program quality, philosophy, structure, environments, health and safety, developmentally appropriate practice, and inclusion/diversity issues.

EARLYCHL 10307170 ECE: Field Experience 2 3 Credits/Units
This intermediate field experience course includes assisting the mentor teacher in carrying out classroom routines and implementing developmentally appropriate learning experiences that promote child development and learning through play for children birth to age 8.

EARLYCHL 10307179 ECE: Child Development 3 Credits/Units
The 3-credit course examines child development within the context of the early childhood education setting. Course competencies include: integrate strategies that support diversity, cultural responsiveness, and anti-bias perspectives; analyze social, cultural, and economic influences on child development; summarize child development theories; analyze development of children ages three through five; analyze development of children ages five through eight; relate child development research findings to teaching practice; analyze the role of heredity and the environment; examine the role of brain development in early learning (ages 3-8); examine developmental and environmental assessment strategies for children ages 3-8.

EARLYCHL 10307181 ECE: Child Care Operations Management 3 Credits/Units
Course 2 of the Administrator Credential. Includes discussion and practical applications related to scheduling, staffing, facilities management, equipment acquisition and maintenance, services delivery, record keeping and communication.

EARLYCHL 10307182 ECE: Child Care Financial Management 3 Credits/Units
Review of principles and practices in budget planning and preparation and fiscal management, including hands-on experience with program applications.

EARLYCHL 10307184 ECE: Child Care External Environment 3 Credits/Units
Course 4 of the Administrator Credential. Review of external factors which affect the operation of early care and education programs including determination of community child care needs, marketing, laws and regulations, working with government and community agencies, political and societal issues and trends.

EARLYCHL 10307185 ECE: Child Care Best Practices 3 Credits/Units

Course 5 of the Administrator Credential. Establishing and maintaining quality programs based on professional standards and the best available information on child growth and development and family friendly environment/services. Includes a review of literature and research studies; licensing laws and regulations; criteria for staff credentials (CDA) and the accreditation of programs by the National Academy of Early Childhood Programs; funding requirements and performance standards, such as those for Head Start.

EARLYCHL 10307186 ECE: Child Care Administrator Capstone 3 Credits/Units
Course 6 of the Administrator Credential. This is the culminating experience in the credential course sequence. Major individual

projects are required with a focus on the integration of program aspects in developing strategic planning for change. 3 credits. Prerequisites: Courses 1 through 5 of WPCCCA course sequence.

EARLYCHL 10307187 ECE: Children w diff Abilities 3 Credits/Units
This 3-credit course focuses on the child with differing abilities in an early childhood education setting. Course competencies include: integrate strategies that support diversity, cultural responsiveness, and anti-bias perspectives; promote inclusive programs for young children; apply legal and ethical requirements including, but not limited to, ADA and IDEA; examine the consultation process to embed intervention in natural based settings; differentiate between typical and exceptional development; analyze the differing abilities of children with physical, cognitive, health/medical, communication, and/or behavioral/emotional disorders; identify community and professional resources; interpret an individual educational plan (IEP/IFSP) for children with developmental differences; adapt curriculum to meet the needs of children with developmental differences; examine strategies for cultivating partnerships with families who have children with developmental differences.

EARLYCHL 10307188 ECE: Guiding Children's Behavior 3 Credits/Units
This 3-credit course examines positive strategies to guide children's behavior in the early childhood education setting. Course competencies include: integrate strategies that support diversity, cultural responsiveness, and anti-bias perspectives; analyze techniques for and effects of strong relationship-building with children and families; identify positive and proactive guidance principles and techniques to support children; analyze environmental influences on child behavior; identify strategies that support children's active engagement in the learning environment; identify strategies that proactively teach emotional literacy and regulation techniques; identify strategies that proactively teach friendship skills; identify strategies that proactively teach children calming, relaxation, and problem-solving techniques; utilize observation and assessment techniques to assess and interpret behavior; create a behavior support plan based on a functional behavior assessment; create a guidance philosophy. This course meets the requirements of the "24 hour Wisconsin" Pyramid Model training.

EARLYCHL 10307190 ECE: Field Experience 3 3 Credits/Units
This advanced field experience course focuses on supporting young children's development birth to age 8 through observation, assessment, and implementation of developmentally appropriate teaching strategies.

EARLYCHL 10307195 ECE: Family & Community Relations 3 Credits/Units
In this 3-credit course you will examine the role of relationships with family and community in early childhood education. Course competencies include: implement strategies that support diversity, cultural responsiveness, and anti-bias perspectives when working with families and community; analyze contemporary family patterns and trends; identify strategies to strengthen and support families; explore effective communication strategies; discover strategies for developing respectful and reciprocal relationships with families; analyze strategies to promote family engagement in early childhood education programs; explore a variety of formats for meeting with families in their contexts; advocate for children and families; and explore community resources that provide a range of services for children and families.

EARLYCHL 10307204 ECE: Child Care Admin and Supervision 3 Credits/Units
Course one of the Administrator Credential. This course provides an overview of roles and responsibilities of directors, coordinators, supervisors and other administrators in early childhood programs.

EARLYCHL 10307210 ECE: Field Experience 4 3 Credits/Units
This final pre-professional field experience course focuses on demonstrating a comprehensive understanding of children birth to age 8, and families. An emphasis is on practicing the lead teacher role to design, implement and evaluate a connected unit of learning experiences.

EARLYCHL 10307260 ECE: Building a Foundation for Understanding Diversity 3 Credits/Units
Students will be required to explore the historical context of racism and discrimination, reflect deeply on their own identity, culture, intersectionality and biases, and begin to consider steps they can take toward growth.

EARLYCHL 10307261 ECE: Building on the Assets of Families and Cultures 3 Credits/Units
Students will learn about how to build on the assets of diverse families. They will learn how to engage families while respecting their different backgrounds, welcome families and solicit their involvement so teachers and families can work collaboratively in the best interest of their child.

EARLYCHL 10307262 ECE: Culturally Appropriate Interactions and Guidance 3 Credits/Units

Students will learn about culturally appropriate interactions and guidance for young children. Students will explore their own biases; reflect on their intentional and unintentional beliefs that lead to their responses when working with children from backgrounds different from their own. Students will also begin to recognize the disparity of equity that may impart a cumulative emotional and historical trauma across generations while learning how to interact and guide children that may be affected by such.

EARLYCHL 10307263 ECE: Authentic Curriculum that Connects with Children 3 Credits/Units
Students will learn about the importance of creating curriculum that connects with children from diverse backgrounds. Students will also explore their role as leaders in the classroom and their program in creating a culturally competent environment for children and families. Students will create a capstone project as a summative assessment intended to demonstrate and display what they have

learned throughout the four courses comprising this credential.

EARTHSCI 20806241 Earth Science 3 Credits/Units
Earth Science introduces the physical nature of the earth. The course covers topics in geology, geography, meteorology, oceanography and astronomy. Physical processes and an understanding of their causes and effects are investigated

EARTHSCI 20806244 General Geology 4 Credits/Units
This course introduces the student to the composition and structure of the earth, its surface features and the processes that have shaped and produced these features. The course consists of three one-hour lectures per week and a two-hour weekly lab session. The laboratory is meant to reinforce topics and concepts covered in lecture, and provide hands-on examination of geologic maps, rocks and minerals.

EARTHSCI 20806246 Survey of Oceanography 3 Credits/Units
This course introduces the student to the ocean sciences. The student will investigate the origin of the oceans, ocean chemistry, ocean circulation, waves, tides, sediments and the biology of the ocean. An emphasis will be on the connections between the ocean and the atmosphere, the structure of the ocean basins and life in the oceans. To reinforce the course concepts, the students will interpret current data and maps during class assignments.

EARTHSCI 20806247 Earth Science Lab 1 Credits/Units
This is a one-credit introductory science lab course that investigates the physical aspects of the Earth System. This lab course is offered as a compliment to the 3-credit Earth Science lecture course (20-806-241). The course focuses on the interactions between the geosphere, hydrosphere, biosphere and atmosphere. Students will complete labs that focus on understanding landscape evolution and human interactions with the environment.

EARTHSCI 20806249 Geologic Evolution of the Earth 4 Credits/Units
This four-credit lab science course introduces the student to the history of the Earth, with a focus on the evolution of the continents and the fossil record. Students will learn about geologic time, including how geologists built the geologic time scale. Basic aspects of geology, including plate tectonics, minerals and the rock cycle will be covered. Students will learn about the origin of life on earth, evolution and extinction, how fossil plants, invertebrates and vertebrates are classified. Students will gain an understanding of the Earth's geologic history as known from rock and fossil evidence.

EARTHSCI 20806251 Undergraduate Geology Field Experience 2 Credits/Units
This course is a multi-day, hands-on learning geology experience for students who are interested in the earth sciences. Students will participate in a field trip to important geological locations and gain experience identifying minerals, rocks and fossils in the field. Students will practice making observations and interpretations on geology and will learn how to "see" geology in the field. Field trip destination may vary depending on the instructor leading the course.

EARTHSCI 20806252 Natural Hazards 3 Credits/Units
The course will focus on the physical processes that create environmental hazards (e.g., earthquakes, volcanoes, severe weather), the primary controls on their frequency and intensity, and how human decision-making can influence the magnitude of impact that they have when they inevitably occur.

ECON 10809195 Economics 3 Credits/Units
This course is designed to give an overview of microeconomics, macroeconomics, and international economics. Concepts include scarcity, resources, alternative economic systems, growth, supply and demand, monetary and fiscal policy, inflation, unemployment and global economic issues.

ECON 20809211 Macroeconomics 3 Credits/Units
This course introduces students to the study of macroeconomics. The course is designed to provide students with a foundation for understanding macroeconomic issues and policies. Topics include GDP, inflation, unemployment, fiscal and monetary policy, and international trade. The course discusses the role of markets, government and central banks in stabilizing the economy, addressing social issues and promoting growth. This course meets the need for college transfer credit.

ECON 20809212 Microeconomics 3 Credits/Units

Introduces basic economic principles to analyze economic topics such as the minimum wage, poverty, pollution, the impact of monopoly power, and globalization. Students analyze the economic role of markets and prices, with emphasis on when markets work well and when they fail. Also explore decision-making behavior by consumers and businesses in a variety of economic scenarios, including evaluation of the role of governmental policies to influence economic outcomes.

ECON 20809214 Intro International Econ 3 Credits/Units
International Economics is an introductory course that examines issues in international trade and international finance and the interconnectedness of the world's economies. Topics include the economic arguments for trade, current trade policies and practices, the effects of trade restrictions, free trade and fair trade, foreign exchange markets, and the role of international institutions such as the World Bank, the International Monetary Fund and the World Trade Organization. Current issues such as currency crises and free trade agreements will also be discussed.

ECON 20809228 Environmental Economics 3 Credits/Units

This course addresses the interaction between the economy and the environment. Market evaluations include energy, minerals, agriculture, forests, fisheries and tourism. Economic concepts include externality costs, market failure, cost-benefit analysis and definitions of growth. Environmental topics include public health, biodiversity, soil erosion, water quality and atmospheric impacts. Political issues include energy policy, pollution, genetic engineering, land use and environmental justice.

EDFOUND 20809216 **Introduction to Education and Teaching** **3 Credits/Units**
Students are introduced to education and teaching through practical experience in school settings, group discussions, and individual reflection. Each student will complete 50 hours of K-12 classroom observation. We will explore the relationships among education, curriculum, and instruction across contexts of home, community and school; connecting school practices with philosophical perspectives of education.

EDFOUND 20809217 **Introduction to Special Education** **3 Credits/Units**
An introduction to common terms and issues of students with disabilities. Emphasis on inclusion, diversity issues, and legislative mandates including nondiscriminatory assessments, parent/community involvement, individualized education programs, and professional practice with multidisciplinary approaches to supporting children with disabilities in a diverse society.

ELEC-BLD 10413769 **Introduction to the National Electrical Code** **2 Credits/Units**
Gain an introduction to the uses and applications of the state and national electrical codes. Explore standard definitions, enforcement issues and the code-making cycle. Focus on electrical installations to determine compliance with the state and national electrical codes.

ELEC-BLD 10413770 **Introduction to Residential Wiring Methods** **2 Credits/Units**
Introduces students to residential wiring methods that includes practical application and hands-on experience in implementing safety, tool usage, and NEC code requirements.

ELEC-BLD 10413771 **Commercial Wiring Techniques** **2 Credits/Units**
Introduces students to Commercial wiring methods that include practical application and hands-on experience. Skills that students will develop are interpretation of commercial plans, branch circuit requirements, along with conduit bending techniques while applying NEC code requirements.

ELEC-BLD 10413772 **Motors and Transformers** **2 Credits/Units**
Introduces students to magnetism, electromagnetism, transformers, DC generators and motors, AC single-phase and three-phase motors, and an introduction to AC drives.

ELEC-BLD 10413773 **Electric Motor Control** **2 Credits/Units**
Introduces students to the concept of motor control and logic diagrams. The hands-on applications focus on control devices, timers and motors. Students design control circuits and wire complex control scenarios.

ELEC-BLD 10413774 **Electrical Safety Related Work Practices - 70E** **1 Credits/Units**
This course is intended to be an introductory review of safety practices associated with working with electricity. In this course, we will be exploring the hazards related to working with electricity and methods of protection. You will be introduced to electrical hazard types; how to perform energized work; and how to complete risk assessments. Finally, you will be expected to demonstrate and perform safety practices in simulation and written form.

ELEC-BLD 10413775 **Intermediate National Electrical Code** **2 Credits/Units**
Explore standards and procedures used by electricians in determining requirements for electrical installations. Focus on the process of using the code to make decisions and how different occupancies, such as residential, commercial or industrial, affect the electrical installation process.

ELEC-BLD 10413776 **Trends in Electricity** **1 Credits/Units**

Explore current trends and recent developments in residential and commercial electricity.?Trends change based on current events within the industry.?Focus on code, enforcement issues, new materials, equipment and techniques surrounding the new developments. Apply what you learn through hands-on activities.

ELEC-BLD 50413530 **Tech Electrical 1** **4 Credits/Units**
This course description is unavailable at this time. Please contact the center offering the course for more information.

ELEC-BLD 50413531 **Tech Electrical 2** **4 Credits/Units**
This course description is unavailable at this time. Please contact the center offering the course for more information.

ELEC-BLD 50413532 **Tech Electrical 3** **2 Credits/Units**
This course description is unavailable at this time. Please contact the center offering the course for more information.

ELEC-BLD 50413533 **Tech Electrical 4** **2 Credits/Units**
This course description is unavailable at this time. Please contact the center offering the course for more information.

ELEC-BLD 50413534 **Tech Electrical 5** **2 Credits/Units**
This course description is unavailable at this time. Please contact the center offering the course for more information.

ELEC-BLD 50413535 **Tech Electrical 6** **2 Credits/Units**
This course description is unavailable at this time. Please contact the center offering the course for more information.

ELEC-BLD 50413570 **Tech Electrical 7** **2 Credits/Units**

ELEC-BLD 50413571 **Tech Electrical 8** **2 Credits/Units**

ELEC-BLD 50413580 **Trade Electrical Semester 1** **2 Credits/Units**
Students will spend the semester learning about DC theory, electrical hazards, electrical theory, and electrical boxes. Other topics covered include safety and introducing the National Electric Code.

ELEC-BLD 50413581 **Trade Electrical Semester 2** **2 Credits/Units**
Students will spend the semester learning about hand bending, raceways, conductors and cables, electrical construction documents, residential wiring, and electrical test equipment. Other topics covered include safety and introducing the National Electrical Code.

ELEC-BLD 50413582 **Trade Electrical Semester 3** **2 Credits/Units**
Students will spend the semester learning about AC theory, lighting, conduit, junction boxes, conductor installations, and solar applications. Other topics covered include special occupancies, special equipment, and grounding/bonding.

ELEC-BLD 50413583 **Trade Electrical Semester 4** **2 Credits/Units**
Students will spend the semester learning about cable tray, conductor terminations, grounding and bonding, circuit breakers, and controls. Other topics covered include special conditions and communications in the National Electrical Code.

ELEC-BLD 50413584 **Trade Electrical Semester 5** **2 Credits/Units**
Students will spend the semester learning about load calculations, conductors, lighting applications, hazardous locations, overcurrent protection, and distribution equipment. Other topics covered include motor controls, safety, grounding and bonding, and National Electrical Code topics.

ELEC-BLD 50413585 **Trade Electrical Semester 6** **2 Credits/Units**
Students will spend the semester learning about transformers, commercial services, motor calculations, VDV (voice-data-video), and motor controls. Other topics covered include safety, grounding and bonding, and National Electrical Code topics.

ELEC-BLD 50413586 **Trade Electrical Semester 7** **2 Credits/Units**
Students will spend the semester learning about load calculations ? feeders and services, health care facilities, standby and emergency systems, basic electronic theory, fire alarm systems, specialty transformers, and advanced controls. Other topics include safety, grounding and bonding, and exam prep.

ELEC-BLD 50413587 **Trade Electrical Semester 8** **2 Credits/Units**
Students will spend the semester learning about HVAC controls, heat tracing and freeze protection, motor operation and maintenance, medium-voltage termination/splices, special locations, and fundamentals of crew leadership. Your topics include safety. Exam prep. And calculations ? AC refrigeration, welders, short circuit, and motors.

ELEC-IND 10413752 **Codes for Industrial Electricians 1: Introduction to the NEC** **1 Credits/Units**

This course introduces the apprentice to the layout and purpose of the National Electric Code. It also strives to teach the apprentice proper methodology to research a code question and correctly interpret what they are reading. Various examples in the textbook and activity sheets help guide the apprentice through this process. Apprentices will research the structure of the National Electric Code and define the requirements of the code that are common to all electrical installations. In addition, apprentices will examine the installation requirements for fire pumps, emergency systems and fire alarms. This is the first course module of 8 dealing with electrical codes applicable to the trade.

ELEC-IND 10413753 **Codes for Industrial Electricians 2: OCPD and Electrical Device Installations** **1 Credits/Units**
In this module of Codes for Industrial Electricians, apprentices will learn how to plan for the installation of overcurrent protection devices and how to select the proper boxes, cabinets and conduits for industrial electrical installations as called for in the NEC and other electrical codes. This is the second of 8 course modules on the NEC.

ELEC-IND 10413754 **Codes for Industrial Electricians 3: Article 250 Part A** **1 Credits/Units**
Course three of 8 examines the application of grounding to industrial electrical situations as required by the NEC and other electrical codes.

Madison Area Technical College

ELEC-IND 10413755 **Codes for Industrial Electricians 4: Article 250 Part B** **1 Credits/Units**

Course 4 of 8 on the NEC continues to examine Article 250 and grounding applications for industrial electrical installations. Apprentices will complete their review of this portion of the NEC and examine additional related electrical codes in effect across Wisconsin.

ELEC-IND 10413756 **Codes for Industrial Electricians 5: Article 300, Cords/Cables, Hazardous Installations** **1 Credits/Units**

Course five of 8 examines article 300 of the NEC and wiring methods for industrial electrical applications. In addition, apprentices will determine sizing requirements for cords and cables for installations common to industrial facilities. Finally, the course will identify code requirements for equipment installations in hazardous locations.

ELEC-IND 10413757 **Codes for Industrial Electricians 6: Conductors, Raceways, Data/Communication Cables** **1 Credits/Units**

Course six of 8 covers the selection of proper conductors and raceways for industrial electrical installations as required by the NEC and other electrical codes. In addition, course competencies will include examining the installation requirements for data and communication cables.

ELEC-IND 10413758 **Codes for Industrial Electricians 7: Motors and Generators** **1 Credits/Units**

Course seven of 8 reviews the code requirements for the selection of electrical components for typical industrial electrical motor installations. Course module includes sizing of controls, conductors, switches, branches, and more.

ELEC-IND 10413759 **Codes for Industrial Electricians 8: Transformers** **1 Credits/Units**

Course eight of 8 reviews the electrical code requirements which provide for the protection of various industrial transformer installations. Course competencies include developing plans, sizing equipment and components, safety, and references to applicable sections of the NEC.

ELEC-IND 10413765 **Power Systems & Variable Speed Drives for Industrial Electricians** **3 Credits/Units**

This course provides the opportunity for students to learn about power systems and variable speed drives (VSD's). Topics include electricity, electronics, power transmissions, motor operations, AC and DC motor drives, servo and stepper drives, peripherals and communication. Apprentices will also explore closed loop control, feedback devices, and drive maintenance and the troubleshooting of VSD's. Course includes lab/shop and classroom lecture-lab hours.

ELEC-IND 10413768 Industrial Electrician Solid State Electronics 3 Credits/Units
This course provides the apprentice with the skills and knowledge for troubleshooting basic solid-state devices and circuits. The construction, identification, and operating characteristics of solid-state devices is investigated. The apprentice builds test circuits, gathers and analyzes data, and follows safety procedures. Methods for locating defective components are applied. The replacement of printed circuit board components is performed. Also examined is the effect of temperature on the operation of solid-state devices.

ELEC-IND 32413760 Industrial Electrician Transformers 1 Credits/Units
Designed to introduce the Industrial Electrician Apprentice to the basic concepts of single and three-phase transformers. The course will cover transformer theory, turns, current and voltage ratios as well as proper connections and use of various transformers.

ELEC-IND 32413761 Industrial Electrician Motors & Generators 1 Credits/Units
This is the first course of 3 courses for industrial electrician apprentices to explore motor controls. This course introduces concepts, terminology, and safety. In addition, this is designed to give the Industrial Electrician Apprentice the knowledge required by industry to maintain electric motors and generators. This course material will cover DC motors and generators, single-phase and three-phase motors, as well as alternators.

ELEC-IND 32413770 Intermediate PLCs for Industrial Electricians 1 Credits/Units
This is the second of 3 courses for industrial electrician apprentices.

ELEC-IND 32413771 Advanced PLCs for Industrial Electricians 1 Credits/Units
The third course of 3 for industrial electrician apprentices. PLC applications and assessment projects are planned.

ELECENG 10662105 Advanced Circuits 3 Credits/Units
Topics include analysis of series and parallel AC RLC circuits, utilizing series and parallel equivalent circuits, superposition, Delta-Wye transformations, and Nodal Analysis. Real, reactive, and apparent power in AC circuits along with ideal loads in both single and three phase circuits are studied. Lab work includes analysis, computer simulation and actual measurements.

ELECENG 10662106 Advanced Electronics 3 Credits/Units
Topics include variable frequency analysis of RLC circuits, first order Bode plots and correlation of time and frequency response. Semiconductor devices and circuits, including diodes, bipolar transistors and field effect transistor are studied. The time and frequency response of single stage BJT and FET amplifiers is examined. Lab work includes analysis, computer simulation and actual measurements.

ELECENG 10662117 Analog Circuit Design 1 Credits/Units
This course is a lab-based curriculum designed to emphasize essential elements of analog electronics engineering design. The content includes: analog circuit design, researching parts, doing analysis of circuits against specifications, prototyping circuits, the use of test equipment to verify operation of prototype circuits, collecting data and writing engineering reports, and presenting results to an engineering audience. Labs are designed to provide hands-on learning opportunities to build technical skills in working with circuits and the equipment commonly used in industry, while mastering the fundamental techniques of analog circuit design.

ELECENG 10662120 Digital Circuit Design and VHDL 1 Credits/Units
Course covers digital logic circuits design concepts centered on sequential machines, computer programmable devices, FPGAs and VHDL. The course covers analysis of clocked sequential circuits, derivation of stat graphs and tables, sequential circuit design with a strong emphasis on VHDL programing of FPGAs.

ELECT 10605101 Electronics Internship Level 1 3 Credits/Units
This course provides the opportunity for students to apply classroom theory and skills in a business environment. Activities may include PCB assembly, embedded programming, troubleshooting, and repair. Students learn useful skills based on field experience.

ELECT 10605102 Electronics Internship Level 2 3 Credits/Units
This course provides the opportunity for students to apply classroom theory and skills in a business environment. Activities may include PCB assembly, embedded programming, troubleshooting, and repair. Students learn useful skills based on field experience.

ELECT 10605107 Certified IPC Application Specialist (CIS) A-610 1 Credits/Units
Certified IPC Application Specialist (CIS) training focuses on what line workers, operators, inspectors and buyers need to know to inspect or make acceptance/rejection decisions. IPC-A-610, Acceptability of Electronic Assemblies is the most widely used standard published by the IPC. Certification in this industry-traceable program demonstrates a commitment to continuous improvement of product quality and reliability. The CIS program provides individuals with a portable credential that represents their understanding of IPC-A-610.

Madison Area Technical College

ELECT 10605108 **Certified IPC Application Specialist (CIS) J-STD-001** **1 Credits/Units**
Certification in this industry-developed and approved hands-on solder training and certification program helps enhance employee skills and performance. The CIS program provides individuals with a portable credential that recognizes their soldering skills and understanding of this internationally recognized standard.

ELECT 10605112 **AC/DC Electronics 1** **3 Credits/Units**
Covers basic concepts of electric circuits including: Ohm's Law; Kirchhoff's Voltage, and Current Laws; power calculations; and components such as resistors, switches, fuses, conductors, insulators, capacitors, inductors, relays, and other basic electronic components. Also covers use of test equipment.

ELECT 10605113 **Analog Circuit Techniques** **3 Credits/Units**
This introductory electronics course covers devices, circuits and applications. This course uses analog electronics devices ? diodes, field effect and bipolar transistors and operational amplifiers to learn basic theory and use of test equipment in testing and troubleshooting. Lab procedures emphasize the use of documentation (schematics, layout diagrams, parts lists, data sheets) and troubleshooting procedures.

ELECT 10605114 **AC/DC Electronics 2** **3 Credits/Units**

This course continues to develop the concepts learned in AC/DC Electronics 1, 10605112. This course covers RL, RC, RLC circuits; transformers; filters; series and parallel resonance; bridge circuits; Thevenin and Norton theorems; wave shaping; internal resistance; motors; generators; three phase power; power factor and corrections; reactive and apparent power; wye and delta systems. Lab sessions require in-depth technical lab reports.

ELECT 10605115 **Analog Circuit Principles** **3 Credits/Units**
This course continues to develop the concepts learned in Analog Circuit Techniques (10-605-113). The theory and application of field effect and bipolar transistor amplifiers, operational amplifiers and oscillators are covered with an emphasis on circuits including gain, impedance and frequency response. Lab procedures emphasize increased proficiency with electronic test equipment.

ELECT 10605116 **Engineering Project Principles** **3 Credits/Units**
This is a project based course centering on analog circuit applications. This course emphasizes hands-on skills, assembly, testing and troubleshooting, documentation, group work and presentations.

ELECT 10605118 **Digital Circuit Techniques** **3 Credits/Units**
This introductory electronics course covers schematics, component identification, engineering notation, basic logic gates, numbering systems, component identification, and soldering techniques for through hole and surface mount components. IPC-A-610* Standard for Acceptance Criteria for Electronic Assemblies is followed for inspection of assemblies. Following the RoHS directive, lead free solder and assemblies are used in this course. *IPC certification is not automatic upon course completion. IPC certification is awarded separately from the academic credits.

ELECT 10605119 **Digital Circuit Principles** **3 Credits/Units**
Covers digital logic circuits including basic gates, flip-flops, decoders, counters, shift registers, multiplexing circuits, comparators and other similar devices. It also covers Boolean algebra and minimization techniques as well as Field Programmable Gate Arrays (FPGA). Lab work includes individual project design, including layout, construction, testing and documentation.

ELECT 10605123 **Embedded Device Concepts** **3 Credits/Units**
Embedded Concepts focuses on embedded programming with a hardware emphasis. Arduino development boards are used heavily in this course to explore programming and troubleshooting. Variables, conditionals, mathematical operations, functions, loops, interrupts, libraries, event sequencing, flow charts, visual programming and general Embedded C programming are covered throughout this course. Students will engage with Arduino development boards to understand compilation, downloading, and troubleshooting of embedded code in a target microprocessor.

ELECT 10605143 **Motors and Control Circuits** **3 Credits/Units**
This advanced course covers AC and DC motors, stepping motors, feedback systems, servo controllers, sensors, relays, SCRs, Triacs, MOSFETs, programmable logic controllers, industrial controllers, and applied systems and online microcomputer controls.

ELECT 10605151 **Instrumentation and Troubleshooting** **3 Credits/Units**
This advanced course covers the approach, methodology and techniques in trouble shooting electronic circuits and systems as well as the calibration, uses and limitations of common electronic test equipment.

ELECT 10605152 **Digital Systems Analysis** **3 Credits/Units**
This is a project based advanced course focusing on digital circuits, embedded controllers and interfacing. The course emphasizes hands-on skills, assembly, testing and troubleshooting, documentation, working in groups and presentations.

ELECT 10605164 **Electro-optics, Lasers, and Photonics Fundamentals** **3 Credits/Units**
This course is a comprehensive study of photonics designed as a one-semester course. It provides the foundation required to prepare technicians in the areas of optics, electro-optics, lasers, and photonics. The content includes: Nature and properties of light, optical handling and positioning, light sources and laser safety, basic geometrical optics, basic physical optics, and principles of lasers. The labs provide the hands-on learning opportunities to build technical skills in working with lasers, optical components and interfacing these components with electronics.

ELECT 10605172 **Applied Electronic Math 2** **2 Credits/Units**
Continues to develop the mathematics skills needed by technicians to be successful in their field and is closely tied to the other second-semester electronics courses. Laboratory sessions continue to integrate math with electronic applications. Course is only offered in the last 8 weeks of each semester.

ELECT 10605173 **Embedded Programming** **3 Credits/Units**
This introductory course covers the fundamentals of electronic computer language, systems and structure. Embedded processor hardware is studies from a system level perspective. Programming structures such as loops, branching, data storage, bit-level processing (masking), functions, arrays, pointers and structures will be covered. Languages include ANSI C, Embedded C Language and principles of assembly language.

ELECT 10605176 **Microcontrollers** **3 Credits/Units**

This course covers microcontrollers and digital systems. Topics include Embedded C programming of Microcontrollers, Basic architectural concepts, parallel and serial I/O, Interrupts, Timer Subsystems, Analog to Digital conversion, Asynchronous Serial Communications (USART), CAN Bus communications, Synchronous Serial Communications (MSSP/SPI/IC2 Bus), Pulse Width Modulation (PWM), and basic control concepts.

ELECT 10605178 **Networks, Interfacing and Programming** **3 Credits/Units**
This advance course focuses on networking fundamentals and implementation with an emphasis on Linux. Explores Network layers and Protocols, LabView and FPGA Programming, wireless standards, and Hardware Configuration and programming of various Ethernet connected devices (computers, microcontrollers, remote sensors, control equipment and other hardware).

EMS 10531102 **Emergency Medical Technician 1** **2 Credits/Units**
Based upon the State of Wisconsin/U.S. Department of Transportation/National Highway Transportation Safety Administration curriculum, this approximately 54 hour course covers modules 1-3 and includes classroom instruction, lectures, discussion, demonstrations, skill practice on the roles and responsibilities of being an Emergency Medical Services Provider, as well as basic communication and documentation skills, anatomy and physiology, performing a patient assessment, critical thinking, and basic airway management. This course is a co-requisite of the EMT 2 course.

EMS 10531103 **Emergency Medical Technician 2** **3 Credits/Units**
This course is a co-requisite of the EMT 1 course and continues the State of Wisconsin/U.S. Department of Transportation/National Highway Transportation Safety Administration curriculum. This approximately 130 hour course covers modules 4-8 and includes classroom instruction, lectures, discussion, demonstrations, online assignments, and skill practice on emergent medical and traumatic encounters, dealing with special populations, and EMS Operations. Ten real-life or high-fidelity patient care experiences are required. Successful completion of EMT 1 and EMT 2 prepares students to obtain licensure as an EMT Basic in the State of Wisconsin. This course is a co-requisite of the EMT 1 course.

EMS 10531910 **Introduction to Paramedicine** **1 Credits/Units**
This course introduces students to the skills needed to be a successful Paramedic student. It also provides students with information about what it is like to be a Paramedic.

EMS 10531911 **EMS Fundamentals** **2 Credits/Units**
This course provides the paramedic student with comprehensive knowledge of EMS systems, safety, well-being, legal issues, and ethical issues, with the intended outcome of improving the health of EMS personnel, patients, and the community. The students will obtain fundamental knowledge of public health principles and epidemiology as related to public health emergencies, health promotion, and illness/injury prevention. Introducing students to comprehensive anatomical and medical terminology and abbreviations will foster the development of effective written and oral communications with colleagues and other health care professionals. Co-requisites are required with this course and are specific to the Paramedic daytime or evening track.

EMS 10531912 **Paramedic Medical Principles** **4 Credits/Units**
This course addresses the complex depth of anatomy, physiology, and pathophysiology of major human systems while also introducing the paramedic students to the topics of shock, immunology, and bleeding. Co-requisites are required with this course and are specific to the Paramedic daytime or evening track.

EMS 10531913 **Adv Patient Asses Principles** **3 Credits/Units**
This course teaches the paramedic student to integrate scene and patient assessment findings with knowledge of epidemiology and pathophysiology to form a field impression. By utilizing a structured and organized assessment process with knowledge of anatomy, physiology, pathophysiology, life span development, and changes that occur to the human body with time, the students will learn to develop a list of differential diagnoses through clinical reasoning, along with the ability to modify the assessment as necessary to formulate a treatment plan for their patients.

EMS 10531914 **Adv Pre-Hospital Pharmacology** **3 Credits/Units**
This course provides the paramedic student with the comprehensive knowledge of pharmacology required to formulate and administer a pharmacological treatment plan intended to mitigate emergencies and improve the overall health of the patient. Co-requisites are required with this course and are specific to the Paramedic daytime or evening track.

EMS 10531915 **Paramedic Respiratory Management** **2 Credits/Units**
This course teaches the paramedic student to integrate complex knowledge of anatomy, physiology, and pathophysiology into the assessment to develop and implement a treatment plan with the goal of assuring a patient airway, adequate mechanical ventilation, and respiration for patients of all ages. Specific knowledge pertaining to the respiratory system is also provided to ensure the student is prepared to formulate a field impression and implement a comprehensive treatment plan for a patient with a respiratory complaint. Co-requisites are required with this course and are specific to the Paramedic daytime or evening track.

EMS 10531916 **Paramedic Cardiology** **4 Credits/Units**
This course teaches the paramedic student to integrate assessment findings with principles of cardiovascular anatomy, physiology, epidemiology, and pathophysiology to formulate a field impression and implement a comprehensive treatment plan for a patient with a cardiovascular complaint. Co-requisites are required with this course and are specific to the Paramedic daytime or evening track.

EMS 10531918 **Advanced Emergency Resuscitation** **1 Credits/Units**
By teaching Advanced Cardiac Life Support (ACLS) and Pediatric Advanced Life Support (PALS) methodologies and protocols, this course prepares the paramedic student in the integration of comprehensive knowledge of causes and pathophysiology into the management of shock, respiratory failure, respiratory arrest, cardiac arrest, and peri-arrest states with an emphasis on early intervention to prevent respiratory and/or cardiac arrest if possible. Co-requisites are required with this course and are specific to the Paramedic daytime or evening track.

EMS 10531919 **Paramedic Medical Emergencies** **4 Credits/Units**
This course teaches the paramedic student to integrate assessment findings with principles of anatomy, physiology, epidemiology, and pathophysiology to formulate a field impression and implement a comprehensive treatment plan for a patient with a medical complaint. Co-requisites are required with this course and are specific to the Paramedic daytime or evening track.

EMS 10531920 **Paramedic Trauma** **3 Credits/Units**
This course teaches the paramedic student to integrate assessment findings with principles of anatomy, physiology, epidemiology, and pathophysiology to formulate a field impression and implement a comprehensive treatment plan for an acutely injured patient. Co-requisites are required with this course and are specific to the Paramedic daytime or evening track.

EMS 10531921 **Special Patient Populations** **3 Credits/Units**
This course teaches the paramedic student to integrate assessment findings with principles of anatomy, physiology, epidemiology, and pathophysiology to formulate a field impression and implement a comprehensive treatment plan for patients with special needs. Gynecological emergencies, along with special considerations in trauma are also included within this course. Co-requisites are required with this course and are specific to the Paramedic daytime or evening track.

EMS 10531922 **EMS Operations** **1 Credits/Units**
This course provides the paramedic student with the knowledge of operational roles and responsibilities to ensure patient, public, and EMS personnel safety. Co-requisites are required with this course and are specific to the Paramedic daytime or evening track.

EMS 10531923 **Paramedic Capstone** **1 Credits/Units**
This course provides the student with a final opportunity to incorporate their cognitive knowledge and psychomotor skills through labs and scenario-based practice and evaluations prior to taking the National Registry written and practical examinations. Technical skills attainment (TSA) for each student will be compiled and/or documented within this course as required by the DHS-approved paramedic curriculum. Co-requisites are required with this course and are specific to the Paramedic daytime or evening track.

EMS 10531925 **Paramedic Clinical 1** **1 Credits/Units**
Enhance your learning through the practice of paramedicine in health care environments such as the Emergency Department, Respiratory Therapy, and Operating Room, with actual patients under the supervision of clinical preceptors. Participate in multidisciplinary high-fidelity human patient simulator experiences. Successful completion of this course requires you to meet all clinical competency requirements at the paramedic level as defined by WI DHS EMS. Co-requisites are required with this course and are specific to the Paramedic daytime or evening track.

EMS 10531926 **Paramedic Clinical 2** **1 Credits/Units**
Enhance your learning through the practice of paramedicine in health care environments such as the Emergency Department, Trauma-Life Support Center, Burns Center, and Cardiac Cath Labs, with actual patients under the supervision of clinical preceptors. Participate in multidisciplinary high-fidelity human patient simulator experiences. Successful completion of this course requires you to meet all clinical competency requirements at the paramedic level as defined by WI DHS EMS. Co-requisites are required with this course and are specific to the Paramedic daytime or evening track.

Madison Area Technical College

EMS 10531927 **Paramedic Clinical 3** **1 Credits/Units**
Enhance your learning through the practice of paramedicine in health care environments such as the Emergency Department, Pediatric Care, and Birthing Centers, with actual patients under the supervision of clinical preceptors. Participate in multidisciplinary high-fidelity human patient simulator experiences. Successful completion of this course requires you to meet all clinical competency requirements at the paramedic level as defined by WI DHS EMS. Co-requisites are required with this course and are specific to the Paramedic daytime or evening track.

EMS 10531928 **Paramedic Field Internship** **3 Credits/Units**
Enhance your learning through the practice of paramedicine and EMS Operations in the field environment with actual patients under the supervision of an approved paramedic preceptor. Successful completion of this course requires you to meet all clinical and field competency requirements at the paramedic level as defined by WI DHS EMS. Co-requisites are required with this course and are specific to the Paramedic daytime or evening track.

EMS 10531929 **Paramedic Clinical 4** **1 Credits/Units**
Enhance your learning through the practice of paramedicine in field and health care environment experiences with actual patients under the supervision of instructors or approved preceptors. Participate in formal high-fidelity human patient simulator experiences as a part of this course. Co-requisites are required with this course and are specific to the Paramedic daytime or evening track.

EMS 30531391 **Advanced Emergency Medical Technician (AEMT) 1** **1 Credits/Units**
This course builds on the Emergency Medical Technician (EMT) curriculum. In this course, you will continue to learn advanced patient assessment, communication skills and advanced life support interventions.

EMS 30531392 **Advanced Emergency Medical Technician (AEMT) 2/Clinical** **3 Credits/Units**
This course focuses on Pharmacology, Medical Emergencies, Trauma Emergencies, Specialties/Operations, and completion of your clinical requirements. This course meets the educational requirements for Wisconsin licensure.

EMS 30531393 **Advanced Emergency Medical Technician (AEMT) Field Capstone** **1 Credits/Units**
Enhance learning through practice in the field environment with patients under the supervision of a preceptor. Successful completion of this course requires students to meet all clinical and field competency requirements set forth by the program. This course provides the student with a final opportunity to incorporate their cognitive knowledge and psychomotor skills through labs and scenario-based practice and evaluations prior to taking the National Registry examination.

EMTEC 10620100 **Introduction to PLCs** **1 Credits/Units**
Introductory study of PLC Programming overview (parts, principles of operation, size and applications), PLC components (I/O modules, specifications, CPU, memory, programming options), Number systems and codes (binary, decimal, hexadecimal, BCD, ASCII, binary arithmetic), Fundamentals of Logic (binary concept, AND, OR, NOT functions, Boolean algebra, logic gates, word level instructions), Basics of programming in RSLogix500 (memory organization, program scan, programming languages, instruction addressing, XIC, XIO, OTE instructions, creating ladder logic), PLC installation practices, editing, and troubleshooting (enclosures, electrical noise, grounding, voltages, program editing, program monitoring, preventive maintenance, troubleshooting, connecting to your PLC to your PC)

EMTEC 10620101 **Programmable Logic Controllers 1** **3 Credits/Units**
Fundamentals of programmable logic controller (PLC) installation, interfacing, operation, and programming. Students learn about PLCs connected to Windows-based PCs running state-of-the-art programming tools. Students study discrete and analog input and output; hardware sensor interfacing and troubleshooting techniques; fundamentals of digital systems and will program PLCs using timer, counter, latch, data movement, sequencing, integer arithmetic and other instructions.

EMTEC 10620102 **Programmable Logic Controllers 2** **3 Credits/Units**
Advanced programmable logic controller (PLC) installation, interfacing, operation, and programming. Students learn how to connect advanced PLCs in a typical industrial PLC network utilizing Ethernet, DH+, RS232 and RIO communication paths. Data sharing and distributed PLC programming techniques along with fundamentals of touch panel programming and operation are studied.

EMTEC 10620104 **Sensors, Vision, and Safety Systems** **3 Credits/Units**
Applies various sensors to analog input modules of programmable controllers and to A/D converters for computer systems.

EMTEC 10620106 **Robotics 1 - Basic Operations for Industry** **1 Credits/Units**
FANUC Robotics based introductory study of applications, operation, programming and troubleshooting of Industrial Robots. Prepares the learner to identify the component parts of a robot; describe teach pendant and robot functions; power up the robot control in proper sequence; jog in Joint and Cartesian movement; identify axis movements; navigate the teach pendant to set up the robot for desired movement; demonstrate working knowledge of arm speed and inching control; select the Frames of reference used by the coordinate system; edit an existing program.

Madison Area Technical College

EMTEC 10620108 **Robotics 2 - Programming for Industry** **2 Credits/Units**
FANUC Robotics based advanced study of applications, operation, programming and troubleshooting of Industrial Robots. Prepares the learner to establish and modify robot axis soft limits; navigate the teach pendant to set up the robot for automatic operation; define the Frames of reference used by the coordinate system; create multiple Tool Frames; create a program file; write a functional motion instruction; edit, copy and delete an existing program; demonstrate the use of a wait statement; demonstrate the use of a Call statement; demonstrate the use of an Output statement; and upload and download program memory files. Backup and restore the Controller image

EMTEC 10620110 **Robotics 3 - Vision 2D for Industry** **2 Credits/Units**
This course prepares the learner to program a vision systems as a stand-alone solution and integrate into robotic systems.The student will receive instruction on general vision concepts, including camera setup, lighting, lensing, 2D Single & 2D Multiple View Process and perform hands-on programming with industrial vision systems.

EMTEC 10620112 **Introduction to Integration** **2 Credits/Units**
The planning, documenting, fabrication, assembly and programming of electro-mechanical components is used to introduce students to the principles of integrating automated machines. This course applies the project management, and CAD 2D skills related to electro-mechanical automated systems. The study of motion sequences and control drawings as well as Gantt chart creation and application will be used within this class. Machine efficiencies and trouble-shooting of desktop electro-pneumatic controls is applied.

EMTEC 10620114 **Integration 1** **4 Credits/Units**
The student will apply the concepts of robots and automation by building a small automation system. This automation cell will be accomplished within the framework of an assigned team of students. Student will apply learned concepts studied in previous classes. These concepts will assist in building, testing, and running their automated work cell. Student will develop, and apply project planning, time management and cooperative methods with their team members to build their work cell. Student will learn how to design and make parts for this project. Student also will specify and purchase parts as well as, analyze system malfunctions, which may occur to the modular level. Student will practice the skills needed to interface and make repairs.

EMTEC 10620116 **Integration 2** **4 Credits/Units**
Focuses on integration of a complete manufacturing cell. Typical components include programmable controllers, robot, sensors, drives, conveyors, pneumatics, hard automation, control wiring and vision. Students plan, wire, program, troubleshoot and develop documentation for the whole system.

ENGLISH 10801195 **Written Communication** **3 Credits/Units**
Develops workplace writing skills which include prewriting, drafting, revising, and editing. A variety of writing assignments are designed to help the learner analyze audience and purpose, research and organize ideas, and format and design documents based on workplace subject matter and content.

ENGLISH 10801197 **Technical Reporting** **3 Credits/Units**
Prepare and present written, oral, and visual communication products, including instructions, proposals, informal and formal reports. Produce clear, usable communication by incorporating information design principles, arranging content to satisfy diverse audience needs, and presenting visuals for various contexts. Designed as an advanced course to develop collaborative communication practices, information literacy skills, and ethically responsible professional communication strategies.

ENGLISH 20801201 **English 1** **3 Credits/Units**
The first course in communication skills at the college level, developing student abilities in critical reading, writing, listening, and speaking, for both exposition and argumentation. The course emphasizes summarizing, analyzing, and synthesizing information from sources, and develops research and presentation skills. The class assumes competence in English grammar and paragraph structure.

ENGLISH 20801202 **English 2** **3 Credits/Units**
This course is a continuation of English 1. Students use advanced research skills to write essays that are informative and persuasive in nature and based on topics from the social sciences and humanities. Students conduct research using secondary library resources but also focus on using qualitative methods to conduct primary research, including observation and interviews. MLA format and one other format (APA or Chicago) will be taught. Students will prepare 25-35 pages of polished writing.

ENGLISH 20801204 **Introduction to Literature** **3 Credits/Units**
Introduction to Literature gives students the tools necessary to understand, analyze, and appreciate literature by exploring a variety of literary genres and periods. The course also considers broader conversations about the significance of literature and its historical and cultural contexts. Individual sections may focus on a particular literary theme or emphasis.

ENGLISH 20801207 **World Indigenous Literatures** **3 Credits/Units**
World Indigenous Literatures compares Native American Literature with the literatures of Indigenous peoples around the world (e.g. Latin America, Asia, Africa, Europe, Australasia, and the Pacific Islands). The selection of oral and written materials represents the culture and art of Indigenous groups that originally inhabited any geographical area prior to the arrival of settler-colonial peoples with a central focus on how these materials place US Ethnic issues within a global context.

Madison Area Technical College

ENGLISH 20801209 Literature and Science 3 Credits/Units
The course explores the longstanding relationship between literature and science. Students will discover how literature depicts science, how science changes literature, and, lastly, how these fields have collaborated over the centuries to communicate new knowledge. Students will read a wide variety of genres such as science fiction, science writing, and environmental nonfiction that have shown how the sciences and the humanities have had a long and mutually beneficial relationship.

ENGLISH 20801211 Gay & Lesbian Literature 3 Credits/Units
Students analyze and discuss gender expansive and LGBTQ literature with a focus on intersectional identities. Weekly assignments allow students to consider cultural and historical time periods, documentary films, and biographical articles in both discussion boards and individual journals. Students write creatively and critically as they discover connections between literary elements and theory. Assignments include a narrative, literary analysis, and a research project.

ENGLISH 20801212 Ethnic Literature 3 Credits/Units
Students will read dramas, essays, novels, poetry, or short stories through the lens of race, ethnicity, language, and identity in a multicultural society. Texts include authors identifying as African American, Arab American, Asian American, Jewish American, Latinx, Native American, or multiracial. Readings will represent multiple ethnic groups, but specific authors and genres will vary by instructor.

ENGLISH 20801213 Indigenous American History 3 Credits/Units
Introduces students to the rich, complex and varied literary traditions reflected in the works of contemporary Native American storytellers in fiction, poetry, drama, and film. Issues of language, cultural identity, historical witness, and current social and political experiences are reflected in these genres. The works are discussed in terms of specific cultural and universal themes, and their place in the emerging Native American literary canon.

ENGLISH 20801214 African American Literature 3 Credits/Units
African American Literature introduces students to the rich, complex, and varied literary traditions reflected in the works of African American writers. Studies developments and achievements in voice, genre, and style and explores issues of language, cultural identity, historical witness, and social and political experience. Individual sections may focus on a particular theme, genre, or period for emphasis.

ENGLISH 20801215 British Literature 1 3 Credits/Units
This course examines major authors, works, and periods of British literature from its foundations to the early eighteenth-century within the context of historical, cultural, and philosophical developments.

ENGLISH 20801216 British Literature 2 3 Credits/Units
British Literature 2 examines British fiction, biography, autobiography, poetry, and drama from the 1740s through the late twentieth century.

ENGLISH 20801219 Western World Lit: Classical Antiquity to the Middle Ages 3 Credits/Units
This course studies Egyptian and Sumerian myths and legends, and the outstanding literary masterpieces of Western literature, from the Old Testament and Homer to the end of the Renaissance (16th century). The first semester is not a prerequisite of the second.

ENGLISH 20801220 Western World Lit: Early Renaissance to Present 3 Credits/Units
This is a study in the outstanding literary masterpieces of Western literature from the Neoclassic period to modern times.The first semester is not a prerequisite of the second.

ENGLISH 20801221 Literature and Popular Culture 3 Credits/Units
Students analyze, interpret, and discuss literature and popular culture as artifacts that reflect, amplify, and confront societies' constructions of race, gender, class, sexuality, religion, otherness and belonging. Students read primary texts and critical works that offer genre definitions, provide historical context, establish a relation between content and the culture that produced it. Assignments include: discussion board postings, reading quizzes, and essays.

ENGLISH 20801222 U.S. Latino Literature 3 Credits/Units
Explores U.S. Latinx literature through reading and analysis of texts, including poetry, fiction, drama, and autobiography written by a variety of Latinx groups. Students analyze Latinx literature through the lens of genre, cultural identity, social and political experiences, as well as important historical events. Classes are conducted in English. All required texts were originally written in English or are offered in English translation.

ENGLISH 20801226 Introduction to African Literature 3 Credits/Units
Introduction to African Literature focuses mainly on the literature of Africa from before colonization to the present. It introduces students to the rich, complex, and varied literary traditions reflected in the works of African writers. It studies developments and achievements in voice, genre, and style and explores issues of language, cultural identity, historical witness, and social and political experience. Individual sections will focus on a particular theme, genre, or period for emphasis.

ENGLISH 20801227 **Children's Literature** **3 Credits/Units**
This course introduces students to the major genres of literature for young people such as folklore, illustrated works, and short novels. Students will read a variety of works from different eras and study ways children's literature and the understanding of childhood have developed.

ENGLISH 20801229 **Contemporary Literature** **3 Credits/Units**
This course surveys contemporary literature (mainly British and American) in relation to contemporary society and to major developments in the arts of fiction, drama and poetry. Readings mainly cover material published in the last 25 years.

ENGLISH 20801230 **Classical Mythology** **3 Credits/Units**
Surveys principal myths and legends of Greek and Roman literature in relation to the historical and sociological context of ancient society as well as their importance and influence in modern times. The course will include the reading and analysis of translations of original classical works.

ENGLISH 20801231 **19th c. Russian Literature in Translation** **3 Credits/Units**

19th c. Russian Literature in Translation will provide the opportunity for students to study, in English, the great works of literature from 19th c. Russia. While World Literature courses already provide a broad survey of literature from around the world, this course would focus on the specific culture and literature of Russia during the 19th century.

ENGLISH 20801232 **20th c. Russian/Soviet Literature in Translation** **3 Credits/Units**
This course is designed to present a survey of Russian literature in a period of political, cultural, and aesthetic revolution, beginning with avant-garde movements before the Bolshevik Revolution and the dynamic literary response in the 1920s to the revolution itself, including examples of Socialist Realism, dissident and émigré literature, continuing through the periods of the Thaw and Perestroika. Readings include Chekhov, Zamyatin, Olesha, Bulgakov, Pasternak, Solzhenitsyn and others.

ENGLISH 20801240 **Creative Writing** **3 Credits/Units**
Students learn to manage the creative process through exercises and activities that lead to short stories and poetry; drama and creative non-fiction may be addressed as well. Reading assignments allow students to become familiar with principles and practice of various genres of creative writing and classroom activities prepare students for participating in workshop discussions.

ENGLISH 20801241 **Creative Writing/Fiction** **3 Credits/Units**
Students develop skills in writing prose fiction including character development, scene structure, dialogue and dramatic tension as they build toward the construction and revision of short stories, novellas, etc. Reading assignments allow students to become familiar with principles and practice of fiction. Class meetings follow a workshop format.

ENGLISH 20801243 **Creative Writing/Poetry** **3 Credits/Units**
Students develop poetic technique in open and traditional forms as they draft, critique, and revise poems. Reading assignments allow students to become familiar with principles and practice of poetry and poetics. Class meetings follow a workshop format.

ENGLISH 20801244 **Creative Writing/Non Fiction** **3 Credits/Units**
Students merge literary techniques with the skills or reportage to develop works of creative non-fiction. Reading assignments allow students to become familiar with principles and practice of literary non-fiction. Class meetings follow a workshop format.

ENGLISH 20801249 **Film Writing** **3 Credits/Units**
Film Writing is an intermediate-level creative writing course for the aspiring writer who wants to learn the craft of scriptwriting for feature film and/or television. Because of its emphasis on narrative structure and visual storytelling, Film Writing is also an excellent training ground for fiction writers, technical and business writers, and writers working in social media. Typical outcomes of the course include a better understanding of how to tell a story, improved dialog skills, and a greatly enhanced ability to "show" rather than "tell." Class sessions involve lecture, film viewing, and writing workshops.

ENGLISH 20801250 **Women In Literature** **3 Credits/Units**
Women in Literature examines women as both writers and subjects of literature. Students read works from a number of genres and eras, studying ways women writers have contributed to, challenged and redefined the literary tradition. Students may analyze theme, genre, language, identity issues, social and political topics, and critical theory. The works are selected to explore intersections of gender with race, class and sexuality.

EVTMGT 10109102 **Fundamentals Of Meeting Mgmt** **3 Credits/Units**
Overview of the events industry, event planning careers, and various aspects and skills involved in planning meetings and events. Students explore the core issues of event planning from the fundamentals to the new trends shaping the events industry. Development of event request for proposal, site inspection checklists, and meeting timelines are introduced.

FILM 20810250 **Introduction to Film** **3 Credits/Units**
Examines techniques of film production and explores the relationship between film form and film meaning. Students view films that represent significant movements in the evolution of the medium and learn how to research and write analytical essays about these films.

FILM 20810254 **History Of World Cinema** **3 Credits/Units**
History of World Cinema examines the history of the film medium, primarily as an art form but also as a form of communication, in the United States and internationally from its origin in the 1800s to the present, highlighting significant movements in its development. Students view domestic and foreign films as a basis for study.

FINANCE 10114126 **Corporate Finance** **3 Credits/Units**
This intermediate-level course views finance from the perspective of the financial manager. Topics include techniques of financial analysis, forecasting and budgeting, operating and financial leverage, working capital management, the time value of money, cost of capital, long-term debt and stock financing, dividends and retained earnings. Students are expected to apply both principles of accounting and finance.

FINANCE 10114127 **Financial Analysis** **3 Credits/Units**
A capstone course for the Finance program. Students work in teams to analyze an industry and work individually to analyze a specific company. The project familiarizes students with common sources of business and financial information and develops their analytical skills. A final oral and written report is required.

FINANCE 10114128 **Financial Institutions** **3 Credits/Units**
Introductory-level course which considers the role of financial institutions in the economy. Topics include financial intermediation, the Federal Reserve System, financial markets and instruments, and non-bank financial institutions, including savings and loan associations, credit unions, finance companies, insurance companies, pension funds, mutual funds and governmental financial institutions.

FINANCE 10114130 **Personal Finance** **3 Credits/Units**
This introductory course considers finance from the point of view of the individual or family unit. Topics include budgets, insurance, housing, borrowing, saving, investing and estate planning. Students complete personal finance projects applying the material learned.

FINANCE 10114140 **Investments** **3 Credits/Units**
This advanced course considers alternative investment media and markets. Topics include the investment environment, fundamental and technical analysis, timing, selectivity and diversification, and computer-based investment management. Investment analysis will make use of a student-developed spreadsheet platform.

FIRET 10503100 **Fire Recruit Academy** **5 Credits/Units**
200 hours of fire fighting training prepares students for the State of Wisconsin Firefighter I and Firefighter 2 certification examinations.

FIRET 10503143 **Building Construction for Fire Protection** **3 Credits/Units**
Covers the basic principles of construction and specific classifications of construction as they relate to fire prevention, fire resistance, fire and smoke containment, and performance under fire conditions. Specific building styles, including high-rise and multi-family dwelling units, are also studied. and multi-family dwelling units, are also studied.

FIRET 10503144 **OSHA for the Fire Service** **3 Credits/Units**
This course introduces the basic concepts of occupational health and safety as it relates to emergency service organizations. Topics include risk and hazard evaluation and control procedures for emergency service organizations.

FIRET 10503151 **Fire Prevention** **4 Credits/Units**
Provides functional information regarding the history and philosophy of fire prevention, organization and operation of a fire prevention bureau, use of fire codes, and identification and correction of fire hazards. Meets all requirements for Fire Inspector 1 certification with the State of Wisconsin.

FIRET 10503154 **Hazardous Materials Chemistry** **2 Credits/Units**
This course provides basic chemistry relating to the categories of hazardous materials including recognition, identification, reactivity, and health hazards encountered by emergency services.

FIRET 10503156 **Strategies, Tactics & Inc Mgmt** **4 Credits/Units**
Provides an in-depth analysis of the principles of emergency response through utilization of an incident management system. Prepares students to pursue current national ICS training requirements.

FIRET 10503157 **Fire Investigation** **3 Credits/Units**
Provides learners with the fundamentals and technical knowledge needed for proper fire scene investigation. Prerequisites: all first, second, and third semester courses.

FIRET 10503191 **Principles of Emergency Services** **2 Credits/Units**
This course provides an overview to fire protection and emergency services; career opportunities in fire protection and related fields; culture and history of emergency services; fire loss analysis; organization and function of public and private fire protection services; fire departments as part of local government; laws and regulations affecting the fire service; fire service nomenclature; specific fire

protection functions; basic fire chemistry and physics; introduction to fire protection systems; introduction to fire strategy and tactics; life safety initiatives.

FIRET 10503192 **Principles of Emergency Services Safety & Survival** **3 Credits/Units**
This course introduces the basic principles and history related to the national firefighter life safety initiatives, focusing on the need for cultural and behavior change throughout the emergency services. Prerequisite: all first, second, and third semester courses.

FIRET 10503193 **Fire Protection Systems** **3 Credits/Units**
Provides information relating to the features of design and operation of fire detection and suppression systems.

FIRET 10503194 **Fire Protection Hydraulics** **3 Credits/Units**
This course provides a foundation of theoretical knowledge in order to understand the principles of the use of water in fire protection and to apply hydraulic principles to analyze and to solve water supply problems.

FIRET 10503195 **Fire Behavior and Combustion** **3 Credits/Units**
This course explores the theories and fundamentals of how and why fires start, spread and are controlled.

FITREC 10109106 **Programming & Community Events in Fitness, Recreation, & Wellness** **3 Credits/Units**
This course provides practical knowledge and experiences on the essential elements and design concepts of program planning. Emphasis is placed on student involvement in planning and directing programs for diverse populations in a variety of physical settings.

FITREC 10109121 **Introduction to Fitness, Recreation, and Wellness** **3 Credits/Units**
This course is an introduction to the fitness, recreation, and wellness industry. Emphasis will be placed on career pathways, informational interviewing, professional organizations and certifications, scope of practice, future of the industry, and personal development. Students will investigate and implement personal branding through websites, social media, marketing, and personal business materials.

FITREC 10109127 **Fitness, Recreation, & Wellness Practical Lab** **3 Credits/Units**
In this capstone course, students will be assigned clients to expand their knowledge and skills in the industry. Students will develop, implement, and evaluate individualized and/or group programming for the Madison College community to improve overall health and well-being. Students will be supervised and evaluated on their practical skills by the instructor of this course.

FITREC 10109135 **Leadership Strategies in Fitness, Recreation, & Wellness** **3 Credits/Units**
This course focuses on the development of foundational leadership knowledge and skills within the field. Students will learn and apply various leadership and communication styles, motivational theories, and group dynamics. Students will develop and practice skills for organizing and leading specific activities, including cooperative games and group initiatives.

FITREC 10109155 **Facility Management in Fitness, Recreation, & Wellness** **3 Credits/Units**
Principles for planning, assessing and evaluating resources, areas and facilities. Topics include scheduling, planning and design, assessing resources, routine and preventative maintenance, care of outdoor and natural areas, and impact on the environment.

FITREC 10109159 **Health & Wellness Coaching** **3 Credits/Units**
This course is designed to give students the knowledge and understanding necessary to prepare for the ACE Health Coaching Certification Exam and become effective health coaches. This course is designed to give you both the knowledge and skills needed to assess a client's lifestyle behaviors and support them through behavior change.

FITREC 10109160 **Diversity, Equity, & Inclusion in Fitness, Recreation, & Wellness** **3 Credits/Units**

This course serves as an introduction to inclusion and an understanding of needs and program adaptations relative to recreational pursuits. Topics covered include history, philosophy, purpose, programming, as well as characteristics and needs of individuals with disabilities.

FITREC 10109173 Group Fitness & Small Group Coaching 3 Credits/Units
ACE PREP COURSE - This course is designed to give students the knowledge and understanding necessary to prepare for the exercise science portion of the ACE Certifications. We will cover human anatomy, exercise physiology, applied kinesiology, and nutrition. Students will begin to learn how to facilitate functional training assessments, programming, movement, core, balance, and flexibility.

FITREC 10109176 Personal Training 3 Credits/Units
ACE PREP COURSE - Students will gain knowledge and understanding necessary to prepare for the ACE Personal Trainer Certification Exam and become effective personal trainers. This course is designed to help students learn how to facilitate rapport, adherence, self-efficacy, and behavior change in clients, as well as designing programs to improve the five components of fitness.

FITREC 10109181 Fitness, Recreation, & Wellness Internship 3 Credits/Units
Students must complete 196 hours of internship with an approved fitness/recreation/wellness agency. The on-site practitioner and internship coordinator supervise the student's progress. Recommended for students who have completed two full semesters of program coursework and have an overall GPA of 2.0 or higher.

FITREC 10109197 Outdoor Experiential Facilitation 3 Credits/Units
Learn basic facilitation and technical skills to lead outdoor experiential activities including expeditionary tripping and low/high challenge course programming. Topics include planning, logistics, menu prep, permits, equipment, facilitation skills and methods, and group development. Class includes at least one overnight trip and optional opportunity to receive ACCT Level 1 Certification.

FITREC 10109297 Exercise Science for Fitness Professionals 3 Credits/Units

This course is designed to give students the knowledge and understanding necessary to prepare for the exercise science portion of the ACE Certifications. We will cover human anatomy, exercise physiology, applied kinesiology, and nutrition. Students will begin to learn how to facilitate functional training assessments, programming, movement, core, balance, and flexibility.

FITREC 10109299 Precision Nutrition Coaching 3 Credits/Units
This course is designed for fitness and wellness professionals looking to further explore the relationship between fitness and nutrition. Students will learn the latest discoveries in nutrition science to help clients achieve lasting behavior change. Topics include: cellular biology, digestion, metabolism, macronutrients, micronutrients, and nutrition coaching.

FOUNHLTH 10501101 Medical Terminology 3 Credits/Units
Focuses on the component parts of medical terms: prefixes, suffixes and word roots. Students practice formation, analysis and reconstruction of terms. Emphasis is on spelling, definition and pronunciation. Introduction to operative, diagnostic, therapeutic and symptomatic terminology of all body systems, as well as systemic and surgical terminology, is included.

FOUNHLTH 10501107 Digital Literacy for Healthcare 2 Credits/Units
Provides an introduction to basic computer functions and applications utilized in contemporary healthcare settings. Students are introduced to the hardware and software components of modern computer systems and the application of computers in the workplace. Emphasizes the use of common software packages, operating systems, file management, word processing, spreadsheets, databases, Internet, and electronic mail.

FOUNHLTH 10501153 Body Structure & Function 3 Credits/Units
A concise introduction to human body structure and function. Normal and abnormal states of the body and basic disease processes affecting the body are emphasized. Common problems encountered in a variety of health care settings are presented.

FOUNHLTH 31501101 Medical Terminology 3 Credits/Units
Focuses on the component parts of medical terms: prefixes, suffixes and word roots. Students practice formation, analysis and reconstruction of terms. Emphasis is on spelling, definition and pronunciation. Introduction to operative, diagnostic, therapeutic and symptomatic terminology of all body systems, as well as systemic and surgical terminology, is included.

FOUNHLTH 31501153 Body Structure & Function 3 Credits/Units
A concise introduction to human body structure and function. Normal and abnormal states of the body and basic disease processes affecting the body are emphasized. Common problems encountered in a variety of health care settings are presented.

FRENCH 20802221 French 1 4 Credits/Units
This course is for students beginning the study of French or those who need to review the basics before going on to French 2. Students will learn to participate in uncomplicated conversations on everyday topics and gain a better understanding of and appreciation for people and cultures other than their own.

Madison Area Technical College

FRENCH 20802222 **French 2** **4 Credits/Units**
This course is for students who have completed 1 year of high school French OR 1 semester of college French. Students will learn to understand more complicated conversations and readings and respond with longer, more complex sentences and even paragraphs. Emphasis will be placed on gaining a better understanding of and appreciation for other cultures.

FRENCH 20802223 **French 3** **4 Credits/Units**
This course is for students who have completed 2 years of high school French OR 2 semesters of college French. Students will learn to speak and write at an intermediate level, with an ability to discuss topics that require higher level thinking and more complex structures. Emphasis will be placed on gaining a better understanding of and appreciation for other cultures.

FRENCH 20802224 **French 4** **4 Credits/Units**
This course is for students who have completed 3 years of high school French OR 3 semesters of college French. Students will expand their ability to speak and write at an intermediate level, increasing both the quality and quantity of language produced. Emphasis will be placed on gaining a deeper understanding of and appreciation for other cultures.

FRENCH 20802226 **French 5** **3 Credits/Units**
This course is for students who have completed the grammar review of French 3 and 4 and are now ready to advance their proficiency through more extensive writing and speaking. Various sources of cultural significance from the Francophone world will be used as we explore the idea of identity.

FSHNMKTG 10104183 **International Business in Fashion** **2 Credits/Units**
This course provides the student with the opportunity to interface with various aspects of the Fashion Business on an international level. Students gain exposure as to how marketing, design, and merchandising are approached abroad. An international trip is scheduled for approximately ten days to Italy in the Spring Semester every other academic year.

GENENG 10605252 **Introduction to Computer Engineering** **3 Credits/Units**

Presents logic components built with transistors, Boolean algebra, basic combinational logic design, basic synchronous sequential logic design, basic computer organization and design, and introductory machine-and assembly-language programming and its implementation on a Field Programmable Gate Array. The course introduces students to a team based project in assembly programming providing the experience of a real life computer engineering design project. (Designed to be a transfer course to the UW-Madison Electrical Engineering Program as ECE 252.).

GENENG 10605270 **AC/DC Circuit Techniques and Principles** **3 Credits/Units**
Provides students with hands-on experiences with instruments such as oscilloscopes, digital multimeters, signal generators and other measuring equipment. Covers circuit analysis for series and parallel circuits, Ohms Law, Kirchoff's current and voltage laws, linearity, superposition, Thevenin's theorem, Circuit analysis using Nodal and Mesh Analysis and concepts of AC signals, RC, LC and RLC circuits, filters, resonance. Concepts are reinforced with hands-on experiments coupled with mathematical analysis.

GENENG 10606156 **Statics and Mechanics 2: Centroids, Inertia, and Friction** **1 Credits/Units**
Statics is the study of particle and rigid body equilibrium, and courses in statics are a fundamental component of many engineering degrees. This course serves as a bolt-on to 10-606-155 Statics and Mechanics; the two courses combined are equivalent to Engineering Statics, 20-806-232.

GENENG 10606231 **Introductory Engineering Graphics** **3 Credits/Units**
A freshman course which provides the undergraduate engineering student with a background in descriptive geometry, orthographic projection, engineering drawing techniques, and computer-aided engineering graphics. Topics covered include point-line and plane relationships in projection; multi-view engineering drawings; auxiliary and section views; mechanical fasteners; engineering drawing applications. (Designed for engineering transfer students as the equivalent of ME 231 at UW-Madison.)

GENENG 10606232 **Reverse Engineering and SolidWorks Assemblies** **1 Credits/Units**
Introduces the student to assembly modeling using SolidWorks, utilizing both bottom-up and top-down assembly modeling techniques. A complete set of working drawings will be created, through individual part drawing and assembly drawing techniques. Model creation will also take place by measurement of an existing part/assembly, allowing the student to practice the reverse engineering process to create model and drawing details. This course serves as a bolt-on to 20-606-231 Introductory Engineering Graphics; two courses taken together are equivalent to GE 2030 at UW-Platteville.

GENENG 10662121 **Circuit Modeling 1** **3 Credits/Units**
This course explores electrical engineering concepts including voltage, current, resistance, impedance, Opamps, phasors, Ohms law, Kirchhoffs laws, superposition, Thevenins and Nortons theorems applied to the modeling of zero-order networks, Complex numbers and algebra.

GENENG 10662221 **Circuit Modeling 2** **4 Credits/Units**
This course explores electrical engineering concepts including phasors and sinusoidal steady-state analysis and power. Resonant circuits. Mutual inductance. Transient response of linear networks with Laplace transform.

Madison Area Technical College

GENENG 10662252 **Introduction to Computer Engineering** **3 Credits/Units**
Presents logic components built with transistors, Boolean algebra, basic combinational logic design, basic synchronous sequential logic design, basic computer organization and design, and introductory machine-and assembly-language programming and its implementation on a Field Programmable Gate Array. The course introduces students to a team based project in assembly programming providing the experience of a real life computer engineering design project. (Designed to be a transfer course to the UW-Madison Electrical Engineering Program as ECE 252.).

GENENG 20806232 **Statics** **3 Credits/Units**
Statics is the study of particle and rigid body equilibrium. The course will give students the tools required to calculate forces transmitted to different parts of a structure, given a set of loads acting on it. Vector mathematics is developed and used to analyze complex physical systems. Distributed loads are analyzed with the theory of centroids and moments of inertia.

GENENG 20806233 **Dynamics** **3 Credits/Units**
Dynamics introduces students to the motion of bodies subjected to forces. The course will give students the tools required to analyze the kinematics of systems of particles and rigid bodies. Students will determine the dynamic response of a system to applied loadings using Newton's Laws, the Principle of Work and Energy, and the Principle of Impulse and Momentum.

GENENG 20806234 **Mechanics of Materials** **4 Credits/Units**
Mechanics of Materials introduces students to simple stress and strain; design and investigation of joints, beams, torsion members and columns; evaluation of shear, moment, slope and deflection of beams and combined stresses.

GENENG 20806294 **Engineering Seminar** **1 Credits/Units**
The course offers students interested in engineering careers an orientation experience. Assignments and activities will be focused on academic and career planning and exploration. Students will become familiar with different engineering programs and career paths at Madison College and 4-year institutions.

GENENG 20806295 **Introduction to Engineering** **3 Credits/Units**
This course provides students with an overview of engineering based on a "hands-on" experience with a client-centered engineering design project, which includes: 1) a team-based design project, 2) a survey of engineering disciplines, 3) an introduction to computer tools and lab techniques, and 4) management of a project budget. Instruction will include an introduction to technical fabrication skills required to produce a prototype design product. This course is intended for students intending to transfer to four-year engineering degree programs.

GLBLED 10140107 **Perspectives on Study Abroad** **1 Credits/Units**
This course is required for all students accepted into a Madison College sponsored semester-long Study Abroad program. It is designed as an introduction to and support of residence and study in another country. Students will learn cultural theories, learning styles, cross-cultural communication skills, and strategies for development of cross-cultural competencies. The course will facilitate the intense learning process that occurs when individuals are placed in a new cultural context and will challenge students to explore their own cultural assumptions.

GLBLED 10140333 **Interdisciplinary Global Studies Abroad** **3 Credits/Units**
This course cultivates a global mindset, enhances cross-cultural communication skills, and prepares students for international collaboration. Students explore international business practices, visit various business/cultural sites, and collaborate in multinational teams. The experience fosters an understanding of cultural intersections, socio-historical contexts, and global business practices through engagement at the host site (Northern Ireland, Germany, or Wisconsin).

GRDSGN 10201102 **Design Fundamentals** **3 Credits/Units**
In this class you will be introduced to the elements and principles of design. This semester long class meets 6 hours a week, and introduces students to the design elements of line, shape, space, color, texture, color, and typography through hands on explorations and creative exercises. The supporting design principles and theories are taught, along with course materials that introduces students to Graphic Design history, and the role of Graphic Design in contemporary society.

GRDSGN 10201103 **Drawing Fundamentals** **3 Credits/Units**
An introductory course to build draftsmanship and confidence in basic observational drawing skills. It includes the study of proportion, line and tone, light source, composition, perspective, human anatomy and life drawing. This is a foundation course with emphasis on technical skill-building, class discussion of contemporary and historical art, daily sketchbook practice and hands-on learning.

GRDSGN 10201106 **Advanced Illustration** **3 Credits/Units**
An advanced course that explores diverse conceptual image making practices for a variety of illustrative disciplines. Emphasis is placed on creativity, style and media exploration, and producing full-color portfolio pieces using a combination of traditional and digital techniques. The course also introduces historical and contemporary usages of Illustration and elements of professional practice such as time keeping, invoicing and how to maintain and communicate effectively with clients.

GRDSGN 10201110 Advanced Typography 2 Credits/Units
Through lecture, demonstrations and applied projects students explore and develop the effective use of type in graphic design.

GRDSGN 10201114 Introduction to Industry Applications 3 Credits/Units
An introduction to essential tools and software used in creating digital designs. This course builds foundational skills in layout, digital asset creation, and visual communication. Students will learn to design and properly prepare icons, images, vector illustrations, and other elements for visually appealing, user-friendly interfaces and digital products.

GRDSGN 10201121 Graphic Design Workshop 3 Credits/Units
Explore the role, meaning and making of graphic design in our society. The course covers icons and symbols, logos and identity, pattern, texture, layout, design trends, design history, resources for designers as well as the professional practices and the field of graphic design today. Projects cover a range of applications, with emphasis on concept, process, presentation and communication.

GRDSGN 10201128 Print & Digital Production 3 Credits/Units
Practical training in production of digital composition. The student learns to solve realistic print and digital design problems from rough layout through production by completing a variety of increasingly complex assignments.

GRDSGN 10201132 Designing for Development 3 Credits/Units
In this advanced course, students will build on prior learning to master preparing digital designs for developer handoff. Students will explore file organization, structuring, industry-standard terminology, and effective workflow and collaboration techniques, ensuring clear communication between designers and developers to create impactful, functional digital products.

GRDSGN 10201136 Concept Development 2 Credits/Units

Introduces exercises and processes to foster creativity and the development of unique ideas for graphic design, advertising and digital applications. Emphasis is placed on improving research, brainstorming, writing, speaking and critical thinking skills. Working individually, in teams and in groups, students will come up with unexpected solutions to realistic and contemporary industry problems. Visual presentations cover a wide range of levels of finish and incorporate traditional and digital media and rendering techniques.

GRDSGN 10201137 Survey of Design 1 Credits/Units
This course focuses on the Graphic and Web/Interactive design professions, the personal qualities and aptitudes of a designer, and the broad range of career opportunities and tasks performed. The course also offers students an introduction to the requirements and demands of the program and a career in the design industry.

GRDSGN 10201144 Principles of Letterpress: Design and Printing 3 Credits/Units
Provides a foundation in designing for letterpress including typography, composition, image creation/selection, color separation, and ink and paper selection. Students will be introduced to professional practices in a letterpress shop, terminology, composing, prepress, locking up and printing generated on a variety of presses. Artwork will be created with metal and wood handset type, and photopolymer plates using Adobe Illustrator software.

GRDSGN 10201145 Introduction to Screen Printing 2 Credits/Units
Investigation into the tools, techniques and technologies of serigraphy, also known as screen printing. Students learn the safety issues surrounding this printing format. Students investigate a variety of stencil methods and produce at least one project in each of four methods. Students are also introduced to the use of the variety of inks, fabrics and papers used for differing end products, as well as the use of solvents for diluting inks and cleaning up. Projects include the development of a retail product produced through screen printing that may be offered for sale in Madison College enterprise centers. Laboratory hours are allotted to provide flexible accumulation of credit hours. Budgets and production schedules are applied to projects.

GRDSGN 10201146 Advanced Screen Printing Workshop 2 Credits/Units
This course is focused on advancing the skills of learners who have completed the Introduction to Screen Printing course and/or work experience. Emphasis will be put on concept, planning, and high-quality production of a variety of print projects. Projects will focus on further investigation into the use of specific inks, multiple layers of ink, screen mesh and stencil issues, various substrates and archival considerations. At least one multiple color fabric (or T-shirt) project will be addressed employing Plastisol inks and heat set equipment.

GRDSGN 10201147 Advanced Letterpress Workshop 2 Credits/Units
This course will enable students who have completed the Principles of Letterpress course (or comparable coursework/experience) to continue to grow their knowledge and experience in letterpress printing. Projects will be both collaborative and self-directed. Students will become more familiar with press maintenance, set-up and the workings of a print shop. Students will gain entrepreneurial experience through creation of products for sale in pop-up events.

GRDSGN 10201151 Typography 3 Credits/Units
This class is an investigation of all things type related. Students will develop an eye for type and understand how to use it effectively in their design work. Topics include the principles of good typography, type terminology and history, font selection and pairing, letter, word and line spacing, typographic hierarchy, paragraphs and layout, character and paragraph styles, using a grid, trends in typography and the importance of type as the foundation of visual communication.

Madison Area Technical College

GRDSGN 10201152 Illustration & Color 2 Credits/Units
A variety of traditional and digital tools, techniques, styles and media are used to enhance the drawing skills of visual artists and designers. Levels of drawing from loose sketches to tightly finished art are explored, but the emphasis is placed on simplified, gestural and stylized drawing important to concept, composition, presentation and communication. Projects will be predominantly black and white, although some tone and limited color may be incorporated.

GRDSGN 10201153 Integrated Design 2 Credits/Units
Students will simulate the experience of helping a client launch a brand. Students produce a cohesive set of projects including logo and identity, brand standards guide, web presence, motion graphics, and unique print collateral materials appropriate to support this new venture. Smaller independent projects provide additional opportunities to include multi-piece collections for their portfolio.

GRDSGN 10201154 Design Project Management 3 Credits/Units
This class covers general business practices, work-flow and advance production techniques in the design field through applied projects. Collaboration is emphasized where teams apply business practice in developing a product from concept to actual launch. Students will work through the process of producing a photo shoot and prepare files for a variety of media channels. This is an advanced level course with an emphasis on portfolio level work and professionalism.

GRDSGN 10201156 Front-End Web Design 3 Credits/Units
Students will continue to master HTML and CSS, with an introduction to Javascript and other programming languages. Creative, hands-on projects will be designed and programmed for a front-end, user interface context.

GRDSGN 10201157 Social Media Concepting 3 Credits/Units
Create content and campaigns for social media platforms. The focus will be idea based and will include writing, image making (illustration and photography), and video. Daily content, social media contests and ways to encourage user generated content will be covered.

GRDSGN 10201158 Advanced Digital Design 2 Credits/Units
This course introduces students to working in a contemporary digital workflow and provides a studio-like experience. Students will focus on concept, user experience, and most importantly, design execution. They will use the skills they have acquired and work to develop real-world design solutions for a variety of digital mediums.

GRDSGN 10201162 Portfolio Preparation 2 Credits/Units
Students prepare a portfolio of their work and various business materials to apply for employment. Students are supervised and assisted in choice and number of samples, and portfolio layout. Lectures are given on job interviewing and job markets. Faculty approval of a finished portfolio is required for graduation.

GRDSGN 10201163 UX Foundations 3 Credits/Units
UX Foundations is designed to provide students with a strong foundational understanding of user experience design principles and practices. The course covers the key concepts and techniques necessary to design effective and engaging digital products and experiences. Throughout the course, students will learn about the importance of user-centered design and how to conduct user research to inform design decisions. The course will be hands-on, with students working on projects and assignments that simulate real-world UX design challenges.

GRDSGN 10201166 UI Design 3 Credits/Units
This course introduces theories, skills and applications needed for designing digital interfaces. Topics include design principles, typography, color, imagery, iconography, interactivity, usability & accessibility, UI design patterns, prototyping, and preparation of content for development handoff.

GRDSGN 10201168 Human Centered Design 2 Credits/Units
This course introduces essential strategies and tactics for successful design. Topics include user-centered design, content design, user experience, user research, information architecture, search engine optimization, analytics, accessibility, and mobile/responsive design concepts. Work on real-world case studies and conduct peer reviews to learn and practice skills that can be applied in any profession that works digitally delivered content.

GRDSGN 10201169 Business of Graphic Design & Illustration 2 Credits/Units
This course introduces students to the business aspects of entrepreneurial and freelance design and illustration. Topics include setting up a business, finding your niche, targeting markets, developing a creative process, following a client brief, pricing, negotiating fees and invoicing, navigating contracts, managing a freelance workflow, passive income strategies, tax and legal considerations, referrals and how build your client base.

GRDSGN 10201173 Project Management for Digital Designers 2 Credits/Units
Learn the essentials of project management methodologies, tailored for digital designers. Topics include examining processes, navigating proposals and contracts, managing budgets and timelines, allocating resources, and refining client communication. Students will gain strategies to effectively manage design projects and deliver timely, professional-quality deliverables.

Madison Area Technical College

GRDSGN 10201177 Web Design 3 Credits/Units
Learn basic web coding skills using HTML5, CSS, and incorporating Javascript. Design, page layout, web typography, and graphic preparation will introduce user interface (UI) skills. Students will also learn about uploading files, server space, testing, usability, accessibility, and browser compatibility.

GRDSGN 10201178 Advanced UX/UI Design 3 Credits/Units
This advanced-level course consists of a variety of User Interface (UI) design projects that utilize students' UX Design and Visual Design skillsets. There is an emphasis on project management and working independently with strong time management skills. Students will document their projects with comprehensive case-studies to further develop their own portfolios.

GRDSGN 10201181 Introduction to Design Software 3 Credits/Units
An introduction to professional software used in the preparation of digital files including photography, graphic design, layout, typography and illustration using Adobe Photoshop, InDesign, and Illustrator. This is a foundation course for web, print, new media and other communication graphics. This course used to be named Intro to Computer Graphics.

GRDSGN 10201182 Advanced Design Software 3 Credits/Units
This course moves beyond the aesthetic and technical expectations of introductory computer graphics to expand student knowledge and skills in professional design software (Adobe Creative Cloud). Students will concentrate on advanced techniques, efficient workflows, file organization, and current applications to create various projects emphasizing original concepts, strong images, type integration, and preparing files for print and screen.

GRDSGN 10201183 Electronic Illustration 2 Credits/Units
Focuses on illustration creation and preparation for both print and interactive media. Drawing upon the student's understanding of rendering in vector (such as Adobe Illustrator) and raster (such as Adobe Photoshop) software applications, students create illustrations and graphics that demonstrate originality, creativity, conceptualization and technical skills. Students will be introduced to Flash 2D animation and its integration with the digital illustration process.

GRDSGN 10201184 Advanced Design & Layout 2 Credits/Units
This course focuses on concept and the creation of unique and unifying visual solutions applied to print and digital media. Students will deepen their knowledge of previously learned competencies such as composition, hierarchy, typography and color. Projects are designed to give freedom to explore various styles and a range of ideas that mimic a typical agency setting. This is an advanced-level course with an emphasis on portfolio-quality work.

GRDSGN 10201185 User Experience and Interaction Design (UX/ID) Capstone 2 Credits/Units
Students showcase their expertise in this culminating course. Apply advanced user experience (UX) and interaction design (ID) principles to a comprehensive project, collaborating with peers to create innovative, user-centered solutions while demonstrating industry-ready skills.

GRDSGN 10201189 Web Design Project Management 3 Credits/Units
Real client projects provide opportunities to work in teams, manage projects, organize and acquire content, develop site architecture, create a production plan, and practice strong communication skills. Creative, and client appropriate, web page design interfaces will also be a focus. WordPress (or similar CMS) will be the primary platform for web site development.

GRDSGN 10201195 Advanced Digital Development 3 Credits/Units
This course will explore building web sites using Content Management Systems. It will introduce the basics of both WordPress.com (cloud hosted), and WordPress.org (self-hosted). Students will learn now to publish posts and pages, work with themes, employ widgets, create custom menus, activate plugins, and utilize page templates. Students will also build their own page designs from scratch. The course requires text editing software, ftp software, Adobe Create Cloud, and the current version of WordPress. Students are required to acquire server space to host their work.

HISTORY 20803201 Twentieth-Century America 3 Credits/Units
Twentieth-Century America surveys the political, social, economic, cultural history of the United States in the twentieth century. Students will explore the following themes: the impact of technology in twentieth century America, the politics of power and its effects on society, the challenges in the transition to and from the Superpower era, and the various responses of different cultures to the ideas and events of the century. Within each unit, students will build their historical thinking, reading, writing, speaking and listening skills.

HISTORY 20803204 Renaissance, Reformation, and Revolution 3 Credits/Units
Early Modern European History introduces the major political, economic, social and cultural trends, which characterize European society from the Renaissance through the French Revolution. The primary focus is an examination of the changes and conflicts that mark the transition from medieval society to Modern European society, and the impact that this transition has for individuals, groups, institutions, and the world view of Europeans in the early modern period.

HISTORY 20803205 Europe and Modern World 3 Credits/Units
This is an introductory course in European history concentrating on the 19th- and 20th-century experiences of European societies through examination of major social, economic, political and intellectual development. One emphasis is on the changes that caused the transformation of Europe from a pre-industrial to a modern industrial society. A second emphasis focuses on a specific place and time period in order to understand how this process of transformation affected different European nations at different points in their history.

HISTORY 20803208 From Pharaohs to Popes 3 Credits/Units
This course will study the ancient Mediterranean region starting with Old Kingdom Egypt and ending with the fall the of Western Empire in 476 CE. It will chart the development of communities and cultures, examine social and economic conditions, and analyze major intellectual, political, and religious developments in the ancient Mediterranean and in Mesopotamia.

HISTORY 20803211 Early US History 3 Credits/Units
In this course the origin and growth of the United States is studied. It also surveys American political, economic and social development from the founding of the colonies through the Civil War.

HISTORY 20803212 Modern US History 3 Credits/Units
Modern US History is an introductory survey course covering political, social and cultural trends in the United States between the end of Civil War and the present. In addition to presenting what happened in the United States during this period, the course explores the diverse sources historians use to explain the past.

HISTORY 20803214 Native American History 3 Credits/Units

After an overview of indigenous civilizations before 1500, this course focuses on the 500+ years of European colonization of the indigenous peoples of North America. It studies how Spanish, French, English, and American societies tried to shape indigenous cultures, with an eye toward indigenous cultural survival and resistance.

HISTORY 20803216 Immigrants in U.S. History 3 Credits/Units
This course studies American immigration history from 1830 to the present. It will examine the causes of immigration, investigate the social networks immigrants forged, analyze the interactions between immigrants and hosts, and study how immigrants have adapted to and changed the United States. Students will better understand continuity and change in American immigration.

HISTORY 20803220 History Of West Civilization 1 3 Credits/Units
This course introduces students to the history of western culture using the materials from the humanities, including history, art, architecture, literature, drama, philosophy and religion, and music. Course examines the history of western societies from the earliest civilizations up to the Renaissance (approx. 3000 BC to 1500 AD). Class will discover and explore the cultural legacy created by past societies that we embrace as part of western culture and to evaluate the style or cultural essence of the different peoples who have made important contributions to that culture. Students explore historical materials that reflect the human response to physical and social experiences in order to discover what being human involves over time in different places and situations. We also explore the humanities materials to discover how humans have expressed their humanity.

HISTORY 20803224 Early African History 3 Credits/Units
Early African History is an introduction to the civilizations of Africa from early man through the present that focuses on African society before western penetration, the basic nature of African institutions, the colonial experience of Africa and the development of Africa since independence in 1960.

HISTORY 20803225 World In 20th Century 3 Credits/Units
This course focuses on the emergence of a global society in the twentieth century through a chronological examination of the events and trends, which created a more closely connected world, resulting in a "global society" by the end of the century. The course approaches the history of this century through emphasis on themes of particular significance to the creation of global society. Themes include globalization, the growth of mass culture, technology, ideology/religion, and the varied responses of different cultures to the ideas and events of the century.

HISTORY 20803229 Vietnam/American-1945-Present 3 Credits/Units
This course will survey the intersection of Vietnamese and American history from 1945 to the present. It will examine the roots of our involvement in Southeast Asia after World War II through the defeat of the French in the 1950's. It will explore the principal causes and effects of the expanded war in the 1960's both in Vietnam and in the United States?upon Americans and upon Vietnamese. It will conclude with a section discussing the legacy of the war exploring continuing issues like U.S./Vietnamese relations, Southeast Asian refugees in the U.S. and the effect of the war on veterans.

HISTORY 20803233 Gender and Women's History in Cultural Representations 3 Credits/Units
Introduction to gender and women's history from pre-history to the 19th century from a humanities perspective. We will develop a critical analysis by studying cultural representations of women and men within the social and historical context of race, class, gender, sexuality. Our analysis will be shaped by an intersectional approach, which means that gender will always be examined in interaction with race, class, sexuality and dis/ability to reveal how identities and systems of power are shaped by multiple forces. We will study a range of cultural representations ranging from literary and visual arts, to mass media, to material, to political to explore how gendered representations produce social, political and personal implications.

HISTORY 20803234 **Gender and Women's Global History** **3 Credits/Units**
Introduction to gender and women's history from the 19th century to the present with a global perspective. Students will be asked to think critically about the power relations that affect the lives of diverse women in the U.S.-diverse in terms of race, class, ability, sexuality and other markers of power-and will be asked to contemplate the positions of diverse women from around the world.

HISTORY 20803238 **US Latino History** **3 Credits/Units**
This course explores the histories of people who came from the Spanish-speaking areas of the Americas to the United States, including the people who suddenly became American through wars and colonization. It describes diverse and unifying experiences of people who are classified as and define themselves as Latino/Latina/Latinx.

HISTORY 20803240 **African American History** **3 Credits/Units**
Broad introductory survey of significant experiences that have shaped U.S. race relations, beginning with the west coast of Africa during the Middle Ages and moving through the last 30 years of this century in the United States. Special attention is given to slavery, family, politics, education and civil rights.

HISTORY 20803242 **History Nazi Germany-1933-1945** **3 Credits/Units**
This course chronicles the rise and fall of the Third Reich. To accomplish this, the course will analyze National Socialism's historical roots, investigate Nazism's links with World War 1, chart Nazi Party growth in the 1920s and 1930s, explore the creation of the Nazi state, assess Germany's role in World War II, examine the Holocaust, and consider Nazism's legacy.

HISTORY 20803243 **Modern Africa** **3 Credits/Units**
The course covers the history of Africa from the post-WWII era to the contemporary period. The course examines major events and interactions in Africa and Africa's relationship with the world. Course themes include, colonial experiences, independence movements, post-independence governments, globalization in Africa, and contemporary societies.

HISTORY 20803244 **Asian American History** **3 Credits/Units**
This course covers the history of Asian Americans from the mid-19th century to the contemporary Asian America. The course examines major historical experiences, events, and trends. Course themes include the immigrant experience, resistance movements and present-day successes and problems.

HOSPT 10109101 **Exploring Hospitality** **3 Credits/Units**
Introduces new students to the broad spectrum of the leisure services industry. Typical career areas include food service, lodging, travel/tourism, and recreation. The course explores educational options and program career opportunities as well as historical and operational perspectives of the career areas mentioned.

HOSPT 10109125 **Hospitality Leadership** **3 Credits/Units**
Introduces theories, principles and practical application of management skills in the hospitality and tourism industry. Students analyze their current skills and develop a personal management philosophy appropriate to the service industry.

HOSPT 10109131 **Rooms Division Operation** **3 Credits/Units**
Investigates the organization, performance and evaluation of the rooms division of a lodging facility (front desk, reservations, housekeeping and telephone systems) as essential components of operational success and guest satisfaction.

HOSPT 10109134 **Revenue Management** **3 Credits/Units**
Distinguishing between tactical and strategic revenue management, this course will explore foundational aspects of revenue management and develop a strategic revenue management focus by exploring current challenges for revenue managers, big data and market intelligence, the role of social media on revenue management and new market segmentation approaches.

HOSPT 10109136 **Hospitality Law** **3 Credits/Units**
A preventive approach to the laws and liabilities, as well as responsibilities of owners/operators of hotels, restaurants and travel facilities. Reviews precedent-setting court decisions, legal fundamentals, negligence doctrines, civil rights issues and the relationship between providers and the guests/clients.

HOSPT 10109157 **Hospitality Internship** **2 Credits/Units**
Provides on-the-job field experience required for graduation from the program. Requirements include fifteen hours per week of work experience, a written report analyzing four major management responsibilities, and a professional oral presentation of the written report.

HRMGT 10116145 **Introduction to Human Resources** **3 Credits/Units**
This course explores the basics of human management including strategic human resource planning, issues in human resources, planning, equal employee opportunity, analyzing and staffing jobs, training and development, and global and international employment.

HRMGT 10116147 **Wage, Salary & Benefits Admin** **3 Credits/Units**
This course focuses on basic systems and plans of compensation for employees including merit pay, incentive pay, and person focused pay. This course also covers principal techniques in the development and administration of employee benefit programs.

Madison Area Technical College

HRMGT 10116148 **Employee Relations** **3 Credits/Units**
This course includes assessing the organizational culture, employee rights and discipline, union-management including negotiation and conflict resolution techniques, and applying DEI concepts to foster an inclusive organizational culture.

HRMGT 10116149 **Effective Staffing** **3 Credits/Units**
This course provides a comprehensive approach to planning for organizational staffing, including position analysis, job descriptions, job postings, selections methods and onboarding. It will also employ a wide range of recruiting and selection methods and identifying onboarding procedures.

HRMGT 10116152 **Organizational Training and Development** **3 Credits/Units**
This course offers an overview of training and development in organizations. Students will have opportunities to analyze, design, develop, implement, and evaluate training methods. They will learn effective techniques for training, creating job aids, and designing classroom/virtual instruction. The course also introduces adult learning styles and training effectiveness.

HRMGT 10116168 **Employment Law** **3 Credits/Units**
This course explores employment laws that are relevant to human resources functions. Identify laws that impact employment relations, explore solutions to human resource issues, and identify situations to determine if other legal resources are required.

HRMGT 10116169 **Human Resources Capstone** **1 Credits/Units**
This final Human Resource Management program course integrates and enhances knowledge and skills developed throughout the program. Topics include employment law, policies, staffing, meeting facilitation, compensation, and management techniques while utilizing an actual HRIS software to apply these topics in a real-world scenario.

HUMAN 20801254 **Media and Democracy** **3 Credits/Units**
This course examines the role of media and the free flow of information in a democracy. Music, news sources, and social media offer opportunities for citizens to engage and be informed at local and global levels. A variety of forces may compromise interactions between free flow of information and democracy. This course is discussion-based and includes project assignments.

HUMAN 20802261 **Intercultural Experience Practicum 1** **1 Credits/Units**
The Intercultural Experience Practicum focuses on language field-related practice experience. Here, students can practice, advance and apply their target language skills to their field of interest and to a professional or community settings that are linguistically diverse. This provides language skills as well as non-academic practical experience necessary to successfully satisfy the demands of the workforce and the global market.

HUMAN 20802262 **Intercultural Experience Practicum 2** **1 Credits/Units**
The Intercultural Experience Practicum focuses on language field-related practice experience. Here, students can practice, advance and apply their target language skills to their field of interest and to a professional or community settings that are linguistically diverse. This provides language skills as well as non-academic practical experience necessary to successfully satisfy the demands of the workforce and the global market.

HUMAN 20802280 **Global Studies Capstone** **2 Credits/Units**
This course provides the framework for a student to complete the required individual capstone project for the Interdisciplinary Global Studies Certificate under the guidance of an approved faculty member. Faculty and student create a learning contract, establishing outcomes that align with that of the certificate.

HUMAN 20802802 **Honors-Interdisciplinary Global Studies (2cr)** **2 Credits/Units**
Allows a qualified Honors student to pursue a special concentration of study under the guidance of a faculty member. Requires completion of an Honors Project Contract. Credits 2. May be taken more than once. Pre-requisite: 1) minimum of 12 credits at Madison College, a 3.5 or higher GPA, and a previous or concurrent course with Honors Instructor; or 2) High School GPA of 3.5 or higher, and permission of Honors Instructor.

HUMAN 20802902 **Honors-Interdisciplinary Global Studies (3cr)** **3 Credits/Units**
Allows a qualified Honors student to pursue a special concentration of study under the guidance of a faculty member. Requires completion of an Honors Project Contract. Credits 3. May be taken more than once. Pre-requisite: 1) minimum of 12 credits at Madison College, a 3.5 or higher GPA, and a previous or concurrent course with Honors Instructor; or 2) High School GPA of 3.5 or higher, and permission of Honors Instructor.

HUMAN 20810267 **Leadership As An Art** **3 Credits/Units**
Diverse leadership skills, styles, and philosophies are explore through the arts, humanities, and social sciences to help students grow as leaders. Students create a personal leadership philosophy and development plan as they examine emotional intelligence as well as ethical, team-based, and visionary leadership. Leading by serving others, goal-setting, making decisions, guiding through conflict and change, empowering others, and self-actualization are also explored.

Madison Area Technical College

HUMSVC 10520105 Introduction to Human Services 3 Credits/Units
Examines the scope, values and principles of the human service profession. Introduces the typical roles and duties of human service workers. Students assess their own motivations, attitudes and interests. In addition to the regular classroom hours, 45 hours of volunteer work in a community human services agency are required.

HUMSVC 10520106 Orientation to Human Services Populations 3 Credits/Units
Introduces social problems that contribute to the dysfunction of individuals, groups, families and communities. Addresses problems, needs, conditions and events that bring people to human service organizations.

HUMSVC 10520116 Group Work Skills 3 Credits/Units
Students learn principles and techniques needed to lead informational and supportive groups based on the solution- focused model. Students practice group work skills during class.

HUMSVC 10520117 Interviewing 3 Credits/Units
Students learn principles and techniques needed to conduct informational and supportive interviews. Students practice interviewing skills during class.

HUMSVC 10520120 Community Service Agencies 3 Credits/Units

Focuses on characteristics and functions of human services organizations and the roles of human service workers in those organizations. Covers organizational skills of assessment, planning, budgeting, grant writing, evaluation and consulting.

HUMSVC 10520130 Social Change Skills 3 Credits/Units
Introduces principles and strategies of planned change and the role of human services workers as community organizers. Covers how consumers affected by a social problem can clearly define an issue, set a goal and organize to bring about social change.

HUMSVC 10520135 Issues in Addiction 3 Credits/Units
Provides students with a basic understanding of the use and abuse of alcohol and other drugs. Emphasizes historical and social perspectives on drug use, trends of use and legal and social responses to illicit drug use. Additionally, this course provides an accurate description of the effects of psychoactive drugs, identifies methods of substance abuse treatment and introduces the student to local treatment services.

HUMSVC 10520136 Counseling Addiction 3 Credits/Units
Trains students in basic listening and responding skills, familiarizes students with the 12 core functions performed by AODA counselors (screening, intake, orientation, assessment, treatment planning, counseling, case management, crisis intervention, client education, referral, reports, record keeping and consultation) and provides a structured learning environment in which students can develop skills in these core functions.

HUMSVC 10520141 Introduction to Community Mental Health 3 Credits/Units
Introduces the major diagnostic categories of mental illness, with a focus on the psychiatric management of these mental illnesses. Examines the unique treatment needs of people who have a coexisting psychiatric-disorder and substance-abuse problem.

HUMSVC 10520142 Psychopharmacology 3 Credits/Units
This course uses a bio-psycho-social framework to explore the use and misuse of psychoactive drugs. We will learn about the interactions between chemicals and neurons, the psychological and physiological effects on the individual, the impact the individual has on society and the role culture may have on substance misuse and treatment. In addition,we will explore topics relating to biology, pharmacology, neuroscience, chemistry and further our understanding on history, law, sociology and the political climate. The intent of this course is to instill a better understanding of why people use drugs, what effects drugs have on people, the intersections of the individual within the larger systems and various treatment approaches.

HUMSVC 10520157 Human Services Counseling Skills 3 Credits/Units
Introduces basic concepts of ego counseling, Rogerian counseling, transactional analysis, rational-emotive therapy, reality therapy, narrative therapy and solution focused therapy. Covers how counseling theories identify and define problems, explain personality development and treat problem situations.

HUMSVC 10520188 Human Services Experience Conference 1 3 Credits/Units
A small-group seminar designed as a companion/supportive course to the agency experience. Relates theory and principles of practice to agency field-study experience. Students learn to develop supportive relationships with clients and apply the values of confidentiality and client self-determination. They learn how their values and personal experiences affect their work with clients.

HUMSVC 10520189 Human Services Experience Conference 2 3 Credits/Units
Students develop skills specific to their fieldwork placement and complete a major project to enhance their cultural competence.

HUMSVC 10520190 Human Services Agency Internship 1 3 Credits/Units
Students develop skills as human services workers by working directly or indirectly with clients in community agencies 12 hours per week. An agency supervisor and a faculty member closely supervise students. The human services staff makes field placement assignments. Taken concurrently with: 10-520-188.

Madison Area Technical College

HUMSVC 10520191 **Human Services Agency Internship 2** **3 Credits/Units**
Students continue their on-the-job training in community agencies for 12 hours per week. By the end of the course, students have the skills of an entry-level human services worker. Taken concurrently with: 10-520-120 and 10-520-189.

HVAC 10601162 **HVAC Internship** **2 Credits/Units**
This course provides the opportunity for students to apply classroom theory and skills in a industry environment. Activities may include use of tools, troubleshooting techniques, and working with customers and staff in the field. Students learn useful skills based on field experience.

HVAC 10601304 **Industrial Fluid Distribution Systems** **2 Credits/Units**
Covers installation and repair of fluidic systems. Includes fittings, thread cutting, pipe sweating, roll grooving, solder, brazing, plastic cementing, repair equipment and tools. Pumps, valves, water supply systems, and fire protection distribution systems are covered.

HVAC 10601305 **Fluid Distribution Systems Lab** **1 Credits/Units**
Installation and repair of refrigeration piping. Become knowledgeable in piping, fittings, accessories, pipe brazing and repair, equipment and tool operation and maintenance. Practice heat shielding, and nitrogen purging techniques.

HVAC 10601330 **Refrigeration Fundamentals** **2 Credits/Units**
This course is an introduction to basic refrigeration systems. Topics include terminology, the refrigeration cycle, safety, refrigerants, lubricants, and environmental issues. Presents applications of HVAC components, refrigeration controls, condensers, heat exchangers, dampers, blowers, and compressors. Use common and high tech tools of HVAC industry to aid in preventive maintenance/repair. Use of virtual interactive troubleshooting programs to reinforce troubleshooting skills. Reinforce documentation of work procedures and complete refrigerant tracking reports. Cover in depth existing and newly developed refrigerants. The learner will operate, evacuate, charge and repair basic refrigeration units.

HVAC 10601331 **HVAC Installation Basics** **1 Credits/Units**
In this course you will practice pulling information out of Industry codes and standards to include local codes for HVAC to properly install common heating and air conditioning equipment in the residential and light commercial industries. You will become very familiar with common practices and various process in the installation aspect of the HVAC industry. You will also practice proper rigging and hoisting procedures during this course.

HVAC 10601332 **Heating and Air Conditioning Advanced** **3 Credits/Units**
Advanced environmental equipment installation, trouble shooting and maintenance course which puts theory into practice including commercial cooling application equipment such as chiller systems, heat pumps, heat recovery systems, geothermal, and air distribution systems. Discuss special work areas and considerations such as clean rooms and hospitals. Gain skills in using high tech diagnostic equipment such as inferred and laser alignment in order to trouble shoot or as a predictive maintenance process. Also covers indoor air quality guide lines and strategies.

HVAC 10601334 **Commercial Refrigeration Systems** **3 Credits/Units**
Students will learn how to operate troubleshoot and maintain refrigeration equipment used in commercial applications like ice machines, rack style parallel refrigeration equipment used in grocery store applications, walk in and reach in coolers and freezers, specialty equipment such as refrigerated trucking equipment.

HVAC 10601336 **EPA 608 Training & Certification** **1 Credits/Units**
This course covers review of the preparatory material, and includes the testing itself. According to the EPA clean air act, section 608, in regards to CFCs, in order to purchase refrigerant or handle or repair any refrigeration system, you must take and pass the EPA certification exam. Students also complete R410 safety training.

HVAC 10601340 **Forced Air Heating Systems** **2 Credits/Units**
This course is an introduction to basic forced air heating systems. Topics include terminology, the forced air heating cycle, humidification, safety, fuels, maintenance, troubleshooting, and air distribution systems and applications. Hands on includes; assembly, disassembly, maintenance, and repair of Residential and commercial heating systems. Discuss and complete common documentation of work procedures.

HVAC 10601342 **Hydronic and Steam Systems** **3 Credits/Units**
Participants will design hot water steam systems, select circulating pumps and other accessories used for proper operation and balancing of hydronic systems. Operating, maintaining, and troubleshooting boilers efficiently and safely will be emphasized.

HVAC 10601362 **Industry Competencies** **2 Credits/Units**
Students will practice necessary customer service skills, such as communication, listening and conflict management, complete project work that will allow them a hands-on means to put all they have learned into practice.

Madison Area Technical College

HVAC 10601370 **Building Automations 1** **3 Credits/Units**
This course will assist the student in developing the skills required to analyze, modify and calibrate HVAC control systems. The fundamentals of control systems will be studied and applied to common control strategies most often found in commercial HVAC systems. Studies computer-based energy and building control systems in detail to include wireless technology. Students will perform control system install using industry accepted practices. Will set up inputs and outputs and perform a proper commissioning on all hardware.

HVAC 10601372 **Building Automations 2** **3 Credits/Units**
Students learn how to analyze and develop control strategies taking in account efficiency, security / safety, comfort as well as indoor air quality guide lines and strategies. Students will write sequence of operations for control strategies used in typical commercial applications. Students will learn how to program and commission control systems for several commonly used automation platforms such as tritium etc.

HVAC 10601410 **Load Calculations, Sizing, and Layout for HVAC** **3 Credits/Units**
Students will learn to calculate heat and cooling loads for commercial buildings. Design and document heating and air conditioning systems for commercial buildings. To include boiler and forced air systems. Design and document a refrigeration system for product storage. Computer programs will be used in component selection and system design.

HVAC 50401590 **Trade HVAC Semester 1** **2 Credits/Units**

10606201 Interpreting Engineering Drawings Part A
10606205 Print Reading for HVAC

HVAC 50401591 **Trade HVAC Semester 2** **2 Credits/Units**
10601340 Forced Air Heating Systems

HVAC 50401592 **Trade HVAC Semester 3** **2 Credits/Units**
10601330 Refrigeration Fundamentals

HVAC 50401593 **Trade HVAC Semester 4** **2 Credits/Units**
10601304 Industrial Fluid Distribution Systems

HVAC 50401594 **Trade HVAC Semester 5** **2 Credits/Units**
10462323 Controls 1

HVAC 50401595 **Trade HVAC Semester 6** **2 Credits/Units**
10601332 Heating and Air Conditioning Advanced

HVAC 50401596 **Trade HVAC Semester 7** **2 Credits/Units**
10601342 Hydronic and Steam Systems

HVAC 50401597 **Trade HVAC Semester 8** **2 Credits/Units**
10601361 Industry Competencies
10601415 HVAC Systems Sizing
10601425 Automated Design for HVAC

INDMECH 10462102 **Introduction to Logic & Troubleshooting** **1 Credits/Units**
The course introduces basic troubleshooting tools, methods and techniques. Students will learn about interpreting schematics, Boolean logic, truth tables, and number systems. The course uses software simulations and labs to introduce relays and relay ladder logic. Students apply common troubleshooting techniques and root cause analysis.

INDMECH 10462104 **Fluid Power 1 for Industry** **1 Credits/Units**
Provides students with the fundamentals of fluid power (hydraulic and pneumatic) and a considerable literacy in the principles of pneumatics and hydraulics. Students will attain an understanding of basic pneumatics principles and practical circuits applying the recently learned principles. The course is intended to gain a general understanding of components and terminology as well as principles and functions. This course has a heavy emphasis on recognizing fluid power components, component symbols, units, equations, and terminology.

INDMECH 10462105 **Fluid Power 2 for Industry** **2 Credits/Units**
Intended to develop an understanding of basic Fluid Power Circuits. Covers the application of basic fluid power systems to various machines along with maintenance and troubleshooting. The maintaining and design considerations of both hydraulic and pneumatic systems will be explored in this course with an emphasis on component selection and circuit efficiencies.

Madison Area Technical College

INDMECH 10462106 **Mechanisms 1 for Industry** **1 Credits/Units**
This course is an introduction to the mechanical systems, with lab exercises in safety procedures, Lock-out Tag-out (LOTO), key and setscrew fasteners, speed and torque measurements, efficiencies, shafts and pillow block, shaft alignment, flexible and rigid motor soft foot detection and correction. The course will survey precision measurement, lubrication, bearing types and applications, vibration analysis, and fasteners.

INDMECH 10462107 **Mechanisms 2 for Industry** **1 Credits/Units**
Studies basic principles of physics specific to electro-mechanical systems. Emphasizes measurement, lubrication, energy, power, machines and fluid and chemical properties, as well as installation, timing and synchronization of machine drive components. Includes hands-on disassembly and assembly of industrial components.

INDMECH 10462108 **Green Awareness for Maintenance** **1 Credits/Units**
Green Awareness for Maintenance orients technicians in the maintenance disciplines to the environmental impacts of their work. The course examines the economic incentives and barriers to lessening the environmental impacts of a range of industries through the adoption of green technologies. It examines the significant role that the efficient sourcing, use, and conservation of energy plays in meeting the environmental impact objectives of the maintenance disciplines. The expanding role of electronic, software, and cloud-based control of industrial systems to minimize environmental impacts is reviewed in detail. Finally, strategies to investigate failures of systems to achieve environmental best practices are explored pursuant to continuous improvement in the performance of engineered systems.

INDMECH 10462109 **Maintenance Operations 1** **1 Credits/Units**
This course provides an understanding of how an organization or plant can improve how they do maintenance, how to keep their equipment running longer, and create a more efficient and streamlined structure so they can be competitive in today's market. Various case studies will be studied, showing the value of maintenance management within any size organization and the pitfalls that may be encountered during TPM implementation and how to avoid or correct these problems.

INDMECH 10462124 **Facilities Maintenance - Envelope** **2 Credits/Units**
In this course you will practice pulling information out of Industry codes and standards to include ADA compliance requirements. You will become familiarized with operation and maintenance of hand, power and motorized tools used in the facilities maintenance career field, as well as perform common exterior and interior repair tasks. In this class you will also become familiar with various construction methods, to include concrete installation and repair methods.

INDMECH 10462209 **Maintenance Operations 2** **1 Credits/Units**
This course continues the understanding of how an organization or plant can improve how they do maintenance, how to keep their equipment running longer, and create a more efficient and streamlined structure. Emphasis is placed on learning the methods of deploying and using a computerized maintenance management system (CMMS).

INDMECH 10462224 **Facilities Maintenance - Mechanical, Electrical, Plumbing** **2 Credits/Units**
In this course you will practice various energy saving tasks such as light repair and maintenance and working with low flow plumbing systems. You will become familiarized with basic electrical and mechanical predictive maintenance procedures to increase efficiency and decrease downtime issues. You will learn to maintain and repair various power distribution systems as well as become familiar with audio / visual system operation and maintenance. In this class you will also become familiar with fire safety systems and inspection procedures.

INDMECH 10462321 **DCAC 1 DC Theory** **1 Credits/Units**
Introduces the practical DC concepts including electrical quantities and components and measurement instruments for DC circuits used in commercial, industrial, and sustainable energy fields. Students measure voltage, current, resistance and power for single and three phase DC sources. Also covers fundamentals of magnetism in electrical components, calculations of electrical components.

INDMECH 10462323 **Controls 1** **2 Credits/Units**
Studies basic principles related to electro-mechanical systems as well as DC Controls. Introduce various electro-mechanical devices used in Industrial Control applications including Relay controls

INDMECH 10462325 **Controls 2** **2 Credits/Units**
Studies principles related to electro-mechanical systems as well as motors, transformers, frequency drives and various electro-mechanical devices to enhance AC power distribution and control systems. Introduces programmable logic controllers in the on/off mode.

INDMECH 10462329 **DCAC 2 AC Theory** **1 Credits/Units**
Introduces the practical AC concepts including electrical quantities and components and measurement instruments for AC circuits used in commercial, industrial, and sustainable energy fields. Students measure voltage, current, resistance and power for single and three phase AC sources. Also covers fundamentals of magnetism in electrical components, calculations of electrical components.

Madison Area Technical College

INDMECH 10462331 **DCAC 3 Theory** **1 Credits/Units**
Introduces the practical DC/AC concepts including electrical quantities and components and measurement instruments for AC and DC circuits used in commercial, industrial, and sustainable energy fields. Students measure voltage, current, resistance and power for single and three phase AC and DC sources. Also covers fundamentals of magnetism in electrical components, calculations of electrical components. Motor and Transformer Theory.

INDSGN 10304100 **Introduction to Interior Design** **1 Credits/Units**
This orientation course focuses on the interior design profession, the personal qualities and aptitudes of the interior designer, and the broad range of career opportunities and tasks performed. The course also offers students an introduction to the requirements and demands of the program and a career in the interior design industry.

INDSGN 10304102 **Studio 1 - Visual Design** **3 Credits/Units**
The focus of this course is on the principles and elements of design that form the conceptual basis from which to solve and evaluate design problems. Students will explore a variety of techniques to clearly communicate conceptual design ideas including oral, written, and visual techniques.

INDSGN 10304106 **Construction and Drafting for Interior Design** **3 Credits/Units**
This course will focus on construction methods and materials through manual drafting techniques and technical drafting conventions. Systems integration of plumbing, electrical, lighting, code regulations and materials will be explored.

INDSGN 10304107 **Furniture and Textiles** **3 Credits/Units**

Interior Design textiles, their construction, testing methods and uses are the premise of this course. Furniture construction and use of textiles in furniture is also explored.?

INDSGN 10304120 **Tech for Interior Design 2** **3 Credits/Units**
This course will build upon Technology for Interior Design 1 coursework with continuation of two-dimensional technical drawing conventions and introduction to three-dimensional and rending software programs as methods to communicate design solutions.

INDSGN 10304123 **Studio 2 - Space Planning** **3 Credits/Units**
This course introduces foundational concepts and methods of planning and arranging spaces and furnishings for both residential and commercial interior environments. Emphasis will be placed on human factors, codes, universal design and professional standards emphasizing the design process.

INDSGN 10304125 **Residential Design** **3 Credits/Units**
This course is an introduction to creating functional and aesthetically pleasing residential interiors. Students will build and apply their skills, knowledge and understanding of the design process and professional practices. Emphasis will be placed on creative problem solving, furniture, material and finish selection and specification, sustainability, lighting theories and effective communication using industry standards.

INDSGN 10304127 **Materials and Estimating** **3 Credits/Units**
This course focuses on interior finishes, materials, and the estimate of those materials for commercial and residential applications.

INDSGN 10304129 **History of Interior Design** **3 Credits/Units**
This course focuses on furniture and architecture from Egyptian up to Modern, as well as the history of the Interior Design Profession.

INDSGN 10304134 **Commercial Design 1** **3 Credits/Units**
This course focuses on the design, specification and documentation of commercial spaces using conventional furniture and open office systems. Students apply their knowledge of materials, finishes, furniture, lighting and building construction through all phases of the design process. In addition, students develop the CAD skills necessary to produce typical project drawings and documentation for a comprehensive commercial design problem.

INDSGN 10304142 **Professional Practice for Interior Design** **3 Credits/Units**
This course focuses on essential interior design business practices, procedures, fees, contracts, forms and job placement skills including resume preparation. Students will also explore skills for selling services, products and design solutions as they relate to the field of interior design.

INDSGN 10304147 **Portfolio Development** **2 Credits/Units**
This course will provide students with direction and guidance to develop and prepare a professional portfolio for both the Annual Portfolio Show and employment. Students will investigate a variety of manual and digital methods allowing for effective visual composition, organization and document assembly to showcase their skills and strengths. Further emphasis will include final resume preparation, advanced interview and professional networking skills.

Madison Area Technical College

INDSGN 10304148 **Design Around the World** **3 Credits/Units**
This course explores the cultural and geographical backgrounds in Interior Design. Focused around diversity, equity, and inclusion, this in depth, advanced study of Interior Design will allow students to take into consideration a client's identity, socio-economic, and/or cultural backgrounds. This course helps the student analyze the reasons behind design decisions that make people feel comfortable in well-designed spaces.

INDSGN 10304177 **Technology for Interior Design 1** **2 Credits/Units**
This course will provide basic introductions to software used in the interior design industry. Introduces students to computer-aided drawing for interior design of two-dimensional with a focus on technical drawing conventions for construction documents.

INDSGN 10304179 **Kitchen and Bath Design 1** **3 Credits/Units**
This course will cover the materials of Kitchen and Bathrooms as well as the design and estimating of these rooms. Design will include industry used drawing software.

INDSGN 10304180 **Technology for Interior Design 3** **2 Credits/Units**
Building upon Technology for Interior Design 2, this course will continue to explore three-dimensional and rendering software programs used in the interior design profession.

INDSGN 10304182 **Interior Design Internship** **3 Credits/Units**
Provides an opportunity to gain pragmatic work experience through supervised internships at an approved job site to gain practical knowledge of the interior design skills learned in the classroom. Students will focus on ethics, professional conduct, compensation methods, administration and project management skills as they relate to the profession of Interior Design.

INDSGN 10304189 **Kitchen and Bath Design 2** **2 Credits/Units**
Going beyond the rooms of kitchen and bath, designers often work on other spaces in a residential home like the home office, laundry room, mud room, bar and entertainment areas, built-ins around a fireplace, and more. Students will study current design trends on these spaces as well as specification of products, including how to use a semi-custom cabinet line to modify the cabinetry used. Computer software programs such as 2020 and others will be used.

INDSGN 10304190 **Commercial Design 2** **2 Credits/Units**
This course is a continuation of Commercial Design 1. This course will explore advanced applications of commercial design. Students apply their knowledge of materials, finishes, furniture, lighting and building construction through all phases of the design process.

INSAFE 10449100 **Safety for Industry** **1 Credits/Units**
This course reviews basic safety standards as outlined by the Occupational Safety and Health Administration (OSHA). Designed for workers going into industrial occupations, it focuses on the hazard recognition and control process. Those who successfully complete the requirements set forth by OSHA will receive an OSHA 10-Hour General Industry completion card. Students may still pass the class without earning an OSHA card.

INSMGT 10162126 **Introduction to Loss Investigation (AIC 33)** **3 Credits/Units**
The claim function, factors influencing claims, the steps involved in analyzing, negotiating, and litigating first and third party claims, and the basics of property and liability losses will be covered in this class.

IT 10107111 **Exploration of Information Technology** **1 Credits/Units**
Introduces the various careers available in the vast field of Information Technology and examines the IT-Cloud DevOps Specialist, IT-Cyber Compliance Specialist, IT-Cybersecurity Specialist, IT-Data & Analytics Specialist, IT-Desktop Support Technician, IT-Front End Developer, IT-Network Systems Administration, and IT-Web Software Developer career paths. Students create an individualized career path plan as the capstone project for the course.

IT 10107175 **Job Search Preparation** **1 Credits/Units**
Introduction to planning and organizing a search for careers in information technology. Activities include the development of a personalized job search plan, resume building, creating a social media presence and a mock interview.

ITCLOUD 10157101 **Introduction to Cloud Computing** **3 Credits/Units**
Introduces students to cloud based computing architectures through hands-on labs with leading public cloud providers. Students will learn the basics of deploying cloud solutions and what makes cloud-based infrastructure unique. The fundamentals of cloud storage, security, account management, networking and monitoring are covered.

ITCLOUD 10157123 **Advanced Scripting for Cloud** **3 Credits/Units**
This course expands on techniques learned in cloud administration and scripting courses to fully automate infrastructure and cloud services. Students will build scripts to test, create and monitor cloud services. This course will utilize the latest cloud scripting languages including but not limited to cloud formation (AWS), ARM Templates (Azure), python, and Powershell. Learning will include demonstration of development best practices including version control and agile development.

Madison Area Technical College

ITCLOUD 10157130 Azure Administration 3 Credits/Units
Students will gain an understanding of the Microsoft Azure cloud environment covering computing, networking, storage and applications. Implementing and administering solutions to information technology challenges through the lens of hosting web applications in Azure will be covered through class discussions and hands-on work in Azure. Students will deploy infrastructure and platform as a service solutions as well as learn how to use each solution to host web-focused software applications. Students will leave with a working knowledge of implementation and administration of a Windows Azure environment as seen through the lens of web and mobile application hosting as they intersect with software development.

ITCLOUD 10157135 Virtualization Technology 3 Credits/Units
This hands-on training course focuses on installing, configuring, and managing virtual infrastructure, including hosts, management servers, and virtual machines (VMs). This course prepares you to administer virtual infrastructure for an organization of any size.

ITCLOUD 10157141 AWS Administration 3 Credits/Units
Explores the Amazon AWS Cloud environment in-depth through hands-on labs and class discussion. Students will learn how to architect, deploy, and administer common AWS solutions. In depth coverage of Amazon EC2 servers, S3 and EBS storage, VPC networking, IAM identity management and other services in AWS. Students will learn the fundamentals of automation through Cloud Formation Templates and the AWS CLI.

ITCLOUD 10157155 DevOps 3 Credits/Units
This course teaches the fundamental concepts of DevOps methodologies and best practices. Students design and execute a fully automated application deployment pipeline using industry-leading cloud services such as AWS and Azure. Students gain an understanding of how DevOps came to be, and why it is so crucial to the success of IT systems.

ITCLOUD 10157196 Cloud Internship 3 Credits/Units
Provides work experience in an area information technology department offering a variety of experiences administering public cloud services. The student spends approximately 15 hours per week at the internship site. By consent of instructor, a special project may be substituted for the internship.

ITDATA 10156105 AI Fundamentals 1 Credits/Units
Provides a basic survey of the importance of AI in the IT industry. This course will discuss broad aspects of AI including types, code generation, and how to validate the results from AI. The course will also present best practices for appropriate and responsible use of AI.

ITDATA 10156124 Introduction to Databases 3 Credits/Units
Introduces the student to relational database concepts using the Microsoft Access and MySQL database environments. Students then study concepts that lead to good relational database design including an introduction to normalization. Basic SQL statements are practiced also. Students are required to have a working knowledge of Microsoft Windows operating system (computer literacy, proficiency with a mouse, file explorer, and file management).

ITDATA 10156125 SQL Database Programming 3 Credits/Units
Presents relational database concepts and teaches beginning to intermediate Structured Query Language (SQL) using a Google cloud-hosted database. Students learn to create and maintain database objects and to store, retrieve, and manipulate data. Demonstrations and hands-on practice reinforce the fundamental concepts.

ITDATA 10156126 Applied SQL 3 Credits/Units
Covers the application of the SQL language to create and use larger data repositories. SQL-based tools transform and store data for later analysis and reporting.

ITDATA 10156133 Data Visualization 3 Credits/Units
Teaches the student to communicate quantitative information through visuals using Power BI and the cloud.

ITDATA 10156135 Data Engineering 3 Credits/Units
Builds on the students' Python programming base with a focus on data engineering tasks. Teaches Python data structures and relevant packages, including numpy and pandas.

ITDATA 10156144 Machine Learning 3 Credits/Units
Advances knowledge by working with real-world data sets and the problems they bring, such as missing data, mismatched formats and ambiguity. Learn several machine learning algorithms such as logistic regression and Random Forest, the trade-offs of bias and variance and how to find the best solution through cross validation, sensitivity and specificity. Using algorithms properly, learn to distinguish between them and how to analyze and prepare the data for their usage, beyond data engineering.

ITDATA 10156145 Applied Analytics in the Cloud 3 Credits/Units
This class brings together all the skills in the student's toolbox by creating a solution to a real world problem over the course of a semester. They will bring together data stored in a variety of formats and locations -- including the cloud, cleanse it, analyze it, visualize it and communicate their findings.

Madison Area Technical College

ITDATA 10156196 **Data Analytics Internship** **3 Credits/Units**
An on-the-job experience in Madison area businesses applying data analytics. Students will seek internship opportunities and interview to be selected for internships. The student spends approximately 216 hours over the course of the semester at the internship site. By consent of instructor, a special project may be substituted for the internship.

ITNET 10150104 **Data Communications** **3 Credits/Units**
This is an introductory course covering the process used to exchange data between end point applications on a network (Like your web browser connecting to a website). Included will be a basic introduction to the concepts of host addressing, data communication channels/flows, and the fundamentals of the applications, tools, and configurations needed to enable and troubleshoot end host connectivity to an existing data network. NOTE prereq: Students are required to have a working knowledge of Microsoft Windows operating system (computer literacy, proficiency with a mouse, file management).

ITNET 10150121 **Intro to Cisco Networking** **3 Credits/Units**
This is an introductory course covering networking architecture, structure, and functions. The course introduces the principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operations to provide a foundation for subsequent networking topics across all IT programs. Students will learn technology concepts with the support of interactive media and apply and practice this knowledge through a series of hands-on and simulated activities. NOTE: Must enroll in Cisco Networking 2, 10150122 within one year of completion of Intro to Cisco Networking, 10150121; Working knowledge of Microsoft Windows (computer literacy, proficiency with a mouse, file management). Class will include use of binary and hexadecimal numbering. Basic arithmetic competence is expected.

ITNET 10150122 **Cisco Networking 2** **3 Credits/Units**
This course covers the architecture, components, and operations of routers and switches in a small network. Students learn how to configure a router and a switch for basic functionality. NOTE: must follow Intro to Cisco Networking, 10150121, within one year.

ITNET 10150123 **Cisco Networking 3** **3 Credits/Units**
This course covers the architecture, components, and operations of routers and switches in larger and more complex networks. Students learn how to configure routers and switches for advanced functionality. Other topics include, WAN technologies, basic network security, and network design and troubleshooting. NOTE: must follow Cisco Networking 2, 10150122 within one year.

ITNET 10150148 **Advanced Technology Implementation** **3 Credits/Units**
Students explore technologies in small groups and learn how to provide technical support of those technologies. Participants diagnose and solve information technology problems by using advanced troubleshooting techniques. Emphasis on projects, soft skills, and presentations.

ITNET 10150192 **Network Systems Administration Internship** **3 Credits/Units**
An on-the-job experience, with instructor supervision, in Madison area companies and in companies that maintain and manage computer systems. Students will seek job or internship opportunities and interview to be selected for position. The student spends approximately 216 hours over the course of the semester at the work site. By consent of instructor, a special project may be substituted for the internship.

ITPROG 10152103 **C# Web Development Using ASP.NET** **3 Credits/Units**
Students learn to develop Microsoft ASP.NET Core applications that deliver dynamic content to the web. An emphasis is placed on server-side programming and the role that ASP.NET Core plays. As part of the class, students create ASP.NET Core MVC applications, display dynamic data from a database using a MySQL database and Azure SQL database resource with the Entity Framework Core ORM. Students will also be introduced to ASP.NET Core WebAPI. Students will be utilizing the Azure DevOps and Azure Cloud platforms to setup CI/CD pipelines and host their web applications on public cloud resources. Students will utilize git repository version control software in conjunction with Visual Studio.

ITPROG 10152108 **Serverless Cloud with React** **3 Credits/Units**
This class introduces students to Serverless cloud computing from a front-end web developer's point of view. Learn React basics and gain experience with popular AWS Serverless cloud offerings including, authentication & authorization, API Gateway, Lambda, DynamoDB, and others. Awareness and experience with cloud native solution architectures are essential as your career progresses toward full-stack software development.

ITPROG 10152109 **Python Scripting** **3 Credits/Units**
This is an introductory course focused on scripting in the Python programming language. Students will learn the fundamentals of creating Python scripts and using the Python language to automate the administration of IT systems. No prior programming or scripting experience is necessary to enroll in this course.

ITPROG 10152110 **Cloud for Developers** **3 Credits/Units**
In this course, you learn how to use the AWS SDK to develop secure and scalable cloud applications. Explore how to interact with AWS using code and also learn about key concepts, best practices, and troubleshooting tips.

Madison Area Technical College

ITPROG 10152111 Java Programming 3 Credits/Units
Introduces programming and object-oriented design concepts using the Java programming language. Students learn all the Java programming basics and use a simple text editor as a development environment. Design concepts and programming tools will be integrated with an emphasis on practical business solutions.

ITPROG 10152112 Advanced Java Programming 3 Credits/Units
This course builds on foundational Java skills with a focus on application development debugging and deployment. Students refine their problem-solving abilities by diagnosing and resolving common programming errors using debugging tools, logs, and test-driven development. Emphasis is placed on writing clean, maintainable code using core Java principles, object-oriented programming, and design documentation. Learners develop web applications MVC architecture, integrate databases with SQL, and application deploy through Apache Tomcat. The course also covers file I/O, exception handling, the Collections framework, and professional version control using Git and GitHub.

ITPROG 10152113 Enterprise Java Programming 3 Credits/Units
The third class of the Java sequence explores advanced Java topics including JDBC, Servlets, JSPs, DAOs, object-relational mapping frameworks, asynchronous messaging, web services, unit testing, logging, authentication, application build and deployment, and version control. Students will gain familiarity with the Amazon Cloud (AWS) environment as they deploy web applications in the cloud.

ITPROG 10152114 Front End Development Internship 3 Credits/Units

Opportunities for students to gain experience in Front End development through an internship in an actual software development department. Students will seek internship opportunities and interview to be selected for internships. The student spends approximately 216 hours over the course of the semester at the internship site. If no internship is available, a special project may be substituted for the internship by consent of the instructor. Activities can include requirements gathering, front End development, and testing of new and existing front end software. In addition, students will share internship experiences with other students at the end of the term.

ITPROG 10152119 Introduction to Programming Using JavaScript 3 Credits/Units
This hands-on programming course introduces fundamental software development practices using JavaScript. You'll learn to think like a developer?designing algorithms, writing clean, modular code, testing thoroughly, and debugging effectively?while adhering to industry standards and best practices. Through a mix of design documentation, coding assignments, code reviews, and self-reflection, you'll build from simple functions and variable management up to complete programs that solve real-world problems.

ITPROG 10152120 Website Development 3 Credits/Units
This course introduces HTML, CSS, and essential web development techniques. Students will learn to create well-structured HTML documents and apply CSS styling to enhance the visual appearance of web pages. Through hands-on exercises, they will develop proficiency in building and styling web content, including text formatting, image integration, and form design. Emphasis is placed on debugging techniques and adherence to web accessibility standards to ensure the creation of accessible and standards-compliant websites. By the end of the course, students will have the skills to create functional and aesthetically pleasing static web pages while adhering to industry best practices.

ITPROG 10152121 Advanced CSS 3 Credits/Units
Advanced topics in website design. Topics include: working with the browser's developer tools; designing and implementing various styles of responsive web design layouts using Flexbox, CSS Grid layout, and CSS frameworks (such as Bootstrap); implementing content hiding and showing; applying CSS processing techniques (pre-processors and post-processors); and incorporating transitions, transforms, and animations.

ITPROG 10152130 UIUX and Web Accessibility 3 Credits/Units
This course explores the fundamentals of user experience design (UX), user interface design (UX), and web accessibility. With a focus on user-centered design, students will conduct and analyze user research, build diagrams, and develop a working desktop prototype. Topics include design principles, UI evaluation techniques, design ethics, web inclusivity, and assistive technology. Web Content Accessibility Guidelines (WCAG) are investigated and applied with a coded website. Students will have an opportunity to earn two digital badges: Teamwork and Web Accessibility Fundamentals.

ITPROG 10152131 Agile Practices 3 Credits/Units
This course teaches students the basics of Agile software development. Students learn how to communicate, plan, estimate, and track software projects as well as how to participate in various roles on software development teams. Students are also exposed to popular software architectures, cloud basics, and formal Scrum/Kanban principles.

ITPROG 10152132 Web Software Developer Internship 3 Credits/Units
Opportunities for students to gain experience in Web software development through an internship in an actual information systems department. Students will seek internship opportunities and interview to be selected for internships. The student spends approximately 216 hours over the course of the semester at the internship site. If no internship is available, a special project may be substituted for the internship by consent of the instructor. Activities can include requirements gathering, software development, and testing of new and existing web software. In addition, students will share internship experiences with other students at the end of the term.

Madison Area Technical College

ITPROG 10152158 JS Frameworks 3 Credits/Units
Learn intermediate/advanced Angular techniques for front-end development with JS/TS (JavaScript/TypeScript). Implement various FP (functional programming) concepts popular in modern JS development. Also experience real world team development with Git, including branching strategies, pull requests (PRs), merge conflicts, and more. Frameworks other than Angular are discussed and many skills taught in this class are also applicable to other frameworks such as Vue and ReactJS.

ITPROG 10152166 PHP Web Development with MySQL 3 Credits/Units
This course introduces the student to dynamic web page development using the PHP programming language. Students will learn how PHP works, how to effectively use many of its powerful features, and how to design and build their own PHP web applications. The popular MySQL open source database management software (DBMS) will also be introduced as a powerful backend for PHP websites.

ITPROG 10152167 Advanced PHP and MySQL Web Development 3 Credits/Units
This course prepares the student to implement professional PHP and MySQL web applications. Students will learn advanced techniques for session management, validation, and authentication. Students will also learn how to create and deploy a LAMP stack locally and remotely to a dedicated hosting platform. Advanced web application features such as PDO, content management using WordPress, customizing WordPress, and creating web services are discussed. Installation and customization of open source PHP web applications are also covered.

ITPROG 10152168 Advanced Javascript 3 Credits/Units
AJAX turns static web pages into interactive applications, allowing you to deploy rich-client applications. Course covers the basics of DHTML, Javascript, and the XmlHttpRequest. Students will also learn how to use modern Javascript as a functional programming language through the use of Map, Reduce, Filter.

ITPROG 10152182 Advanced Front End Development 3 Credits/Units
Students apply their skills and abilities toward the design and implementation of a complete front end web application. Full life-cycle software development practices such as technology choice, project scoping, planning, estimating and tracking are experienced first-hand working with a project mentor. In addition, students will learn how to effectively investigate and incorporate new and trending technologies in the constantly changing field of front end web development.

ITPROG 10152200 Foundations of Software Quality 3 Credits/Units
Learn to understand, verify, and validate the quality of software systems through the analysis and application of modern quantified techniques. Students will understand the terms and concepts which describe the fundamentals of quality assurance. Verification of software quality is addressed by exploring secure software development practices and test strategies including static, exploratory, and dynamic techniques. Validation of software quality is addressed by analyzing risk, coverage, and vulnerabilities. Validation is further refined through the critical analysis of intended vs. actual results and through understanding the contexts and perspectives of end-users.

ITPROG 10152211 Python for Developers 3 Credits/Units
Teaches basic programming using the Python language. The student will learn the Python environment, sequential programming, variables, branching, loops, math for data analytics, functions, modules and lists.

ITSECUR 10151102 IT Security Awareness 1 Credits/Units
Provides a basic survey of the importance of IT security awareness and data confidentiality. This course walks users through basic aspects of information security in a very broad, easy to understand way and explains the value of securing data. The course will also present best practices in access control and password policies. NOTE: Working knowledge of Microsoft Windows (computer literacy, proficiency with a mouse, file management) required.

ITSECUR 10151106 Perimeter Security 3 Credits/Units
This is an introductory course introducing the student to the Palo-Alto Next-Generation Firewall. Students learn the basics of monitoring network traffic through log analysis and securing the enterprise network at the perimeter. Students will also design, configure and manage the essential features of Palo Alto Networks Firewalls, including configuring and managing security policies, NAT policies, threat prevention strategies, site-to-site and client-based VPNs, and Inter-Zone access.

ITSECUR 10151107 Cybersecurity Compliance Fundamentals 3 Credits/Units
Introduces the principles and practices of cyber compliance. Topics include a brief history of notable cyber-attacks, risk management strategies, and the business landscape of cybersecurity. Students will develop communication skills to effectively articulate complex cybersecurity concepts to different audiences.

ITSECUR 10151113 Data Privacy 3 Credits/Units
Explores the technical, legal, and ethical dimensions of data protection. Key topics include privacy laws and regulations, data governance frameworks, and technical privacy-enhancing techniques. Emphasis is placed on strategies for safeguarding sensitive information and mitigating privacy risks in organizational settings.

Madison Area Technical College

ITSECUR 10151114 **Linux Server 2** **3 Credits/Units**
This class provides a hands-on look at the tools and techniques needed to understand the fundamental security issues involving the linux operating system. You will create shell scripts intended to solve basic security scenarios. In addition, you will learn to set up and secure some of the more common network services usually implemented on Linux. Tools include: Bash, netcat, BIND, sshd, NTP, firewalld, nano.

ITSECUR 10151132 **Cybersecurity Standards and Frameworks** **3 Credits/Units**
Delves into the diverse landscape of cybersecurity standards and frameworks. Study industry focused and internationally recognized standards such as the NIST Cybersecurity Framework, ISO/IEC 27001, CIS Critical Security Controls, and PCI DSS. Through case studies and practical exercises, learn to apply these frameworks to enhance organizational cybersecurity posture and align with industry best practices.

ITSECUR 10151133 **Network Forensics and Threat Hunting** **3 Credits/Units**
Hands-on first look at some of the tools, techniques, and procedures used for network-based and Windows forensics as it pertains to threat hunting. Attacks by basic to advanced threat actors will leave artifacts that can be detected. The malware they use must communicate somehow over the network for Command and Control (C2) and data exfiltration. Study collecting and correlating current and historic pcap-based network data with host and network generated logs to create a profile of an attack for post-incident investigations and reporting or proactive threat hunting. Open-source tools include: Security Onion [Hunt, Kibana, Playbook, Cyber Chef, Network Miner, Wireshark, etc...]

ITSECUR 10151137 **Intrusion Detection** **3 Credits/Units**
Overview of the tools and techniques commonly used for detecting threats to an enterprise infrastructure. Implement strategies for documenting and reporting detected events based on industry standard compliance frameworks. We will use the Security Onion distribution. Tools include Elasticsearch, Logstash, Kibana (ELK), Wazuh, Suricata, Zeek, Wireshark, and TCP Dump.

ITSECUR 10151142 **Web Application Security** **3 Credits/Units**
This course provides a broad overview of the tools and techniques commonly used for web application security testing. In depth hands-on exercises are used to instruct the student in the proper selection and application of a given tool for the intended task. Also included are basic strategies for documenting and reporting on the outcome of the test. The student must demonstrate the ability to plan, and execute a basic web security audit in an environment that simulates a common business or organization. Open Source tools include: The BURP suite, Python, etc?

ITSECUR 10151146 **Cybersecurity Policy** **3 Credits/Units**
Examines the development and implementation of cybersecurity policies within organizations and governments. Topics include policy formulation, governance structures, emergency response planning, and organizational policy awareness. Students gain insights into the strategic role of policies in managing cyber risks and fostering a culture of security across different sectors.

ITSECUR 10151164 **Penetration Testing** **3 Credits/Units**
This course provides a broad overview of the tools and techniques commonly used for penetration testing. In depth hands-on exercises are used to instruct the student in the proper selection and application of a given tool for the intended task. Also included are basic strategies for documenting and reporting on the outcome of the test. The student must demonstrate the ability to plan, and execute a basic network security audit in an environment that simulates a common business or organization. Open Source tools include: NMap, Metasploit, Medusa, etc?

ITSECUR 10151168 **Security Design** **3 Credits/Units**
This course affords the cybersecurity specialist the opportunity to design a secure network in a team environment using the skills learned from the prerequisite classes. The student must demonstrate the ability to design, plan and execute an infrastructure that represents the services offered by a common business or organization. The student will research their part of the design and must prepare written document including notes, diagrams, references, and implementation instructions of their part of the total design.

ITSECUR 10151195 **Cyber Compliance Internship** **3 Credits/Units**
An on-the-job experience in Madison area companies that develop, maintain, and manage cybersecurity compliance requirements. Students will seek job or internship opportunities and interview to be selected. The student spends approximately 216 hours over the course of the semester at the work site. By consent of instructor, a special project may be substituted for the internship.

ITSECUR 10151197 **Cybersecurity Internship** **3 Credits/Units**
An on-the-job experience in Madison area companies that maintain, manage and secure computer systems. Students will seek job or internship opportunities and interview to be selected for position. The student spends approximately 216 hours over the course of the semester at the work site. By consent of instructor, a special project may be substituted for the internship.

ITTECSUP 10154104 **A+ Hardware Essentials** **3 Credits/Units**
This course presents a comprehensive overview of computer system fundamentals. Through hands-on activities and labs, students gain skills in assembling, configuring and maintaining PCs and operating system software. Participants learn to apply troubleshooting skills to properly diagnose and resolve common hardware and software problems. This course can help prepare students for CompTIA's A+ 220-1101 exam. CompTIA's A+ certification is a widely accepted IT industry standard certification for an entry-level IT PC support professional.

Madison Area Technical College

ITTECSUP 10154118 **Infrastructure Automation** **3 Credits/Units**
This class provides students with the tools they need to manage and automate IT Infrastructures. Students will learn the basics of scripting and tool creation using Windows PowerShell. Along with developing scripts and tools in PowerShell, students will learn about other tools and trends for managing on-premises and cloud infrastructures.

ITTECSUP 10154122 **IT Service Concepts** **3 Credits/Units**
This course is an introduction to the broad range of customer service topics an entry-level user support specialist is expected to know. The course explores the kinds of knowledge, skills, and abilities needed for a successful career in the IT support industry.

ITTECSUP 10154136 **Technology Implementation** **3 Credits/Units**
Students explore new and emerging technologies and learn how to provide technical support to early adopters of those technologies. Participants diagnose and solve information technology problems by examining the core functions of emerging technologies and by using advanced troubleshooting techniques. Emphasis on soft skills, presentations and group projects.

ITTECSUP 10154171 **Windows Server 1** **3 Credits/Units**

This hands-on course, based on Windows Server operating systems, allows students to gain administrative knowledge of deploying, configuring, and managing Windows Server. Additionally, students will learn how to work with Windows Server technologies, including but not limited to Active Directory and Account Management, Domain Controllers, Hyper-V, WDS, DNS, DHCP, IIS, Group Policy, File and Print, Data Storage, Remote Desktop, and WSUS.

ITTECSUP 10154172 **Windows Server 2** **3 Credits/Units**
Gain the skills to support and maintain a Windows Active Directory environment. This class builds on the basic concepts presented in Windows Server 1 in more complex Active Directory environments designed to suit several sample business scenarios. Working with Windows Server Core, concepts in OU design, bulk object creation with import files and Powershell scripts, delegation of control, and advanced applications of Group Policy will be covered. The course will also emphasize documentation, and testing that the specifications from the various scenarios are met.

ITTECSUP 10154184 **Enterprise Client** **3 Credits/Units**
Learn how to install, configure, and administer a desktop operating system for an enterprise office environment. Topics include Windows installation, device configuration, establishing network connectivity, Windows user profiles, configuring appropriate NTFS and share permissions, remote connections, and an introduction to commands using Windows PowerShell and Command Prompt. NOTE prereq: Students are required to have a working knowledge of Microsoft Windows operating system (computer literacy, proficiency with a mouse, file management).

ITTECSUP 10154190 **Linux Server 1** **3 Credits/Units**
Introduces Linux with a focus on command line system administration skills. Topics include navigating the filesystem, file and directory management, command execution, input/output redirection and pipes, account management, configuring network services, file system security and troubleshooting.

JOURNAL 20801245 **Introduction to Journalism** **3 Credits/Units**
This introductory course in journalism provides students with a better understanding of the unique role and responsibility of the journalist working in a democratic society. The course covers the problems and techniques of the news reporter and provides practical experience in news gathering, editing, interviewing and copyrighting through lab work and submission to the student newspaper. Students focus on "Level 1" journalism: spot news reporting, such as crime, politics, and community gatherings such as sports and music events.

JOURNAL 20801251 **Introduction to Mass Communication** **4 Credits/Units**
Focuses on the history, evolution, and societal role of our media. This course is divided into three modules. Module 1 ("Storytelling and the Written Word") focuses on the evolution of books, newspapers, and magazines. In addition, students will learn how the written communication is changing because of social media and media convergence. Module 2 ("Sound and Visual Stories") examines the music industry, radio, television, and film. In addition, the video gaming industry is explored. Module 3 ("The Business, Ethics, and Laws of Media") focuses on advertising, public relations, and media conglomeration. In addition, laws and ethical situations affecting our media will be discussed.

JOURNAL 20801252 **World Issues Journalism** **3 Credits/Units**
This course focuses on radio news reporting skills that are applied to world issues: water, energy, food, war, and free speech. Students will investigate these issues to produce audio podcast news stories. Students will learn how to write radio news scripts before orally presenting them using audio podcast software.

JOURNAL 20801253 **Photo/Video Storytelling** **3 Credits/Units**
Photo/Video Storytelling is a dynamic, hands-on course that teaches students essential skills of visual storytelling. Through practical projects, students learn photo composition basics, editing techniques, and how to create compelling narratives with still images and video. The course introduces audio recording for storytelling and is ideal for those looking to develop in-demand skills.

JOURNAL 20801256 **Science Communication** **3 Credits/Units**
Examine the history and process of journalism behind "hot button" issues and controversies in science. Apply quantitative literacy skills to scientific claims and evaluate what makes a scientific finding newsworthy. Write about research with clarity in a compelling format while staying true to the underlying facts, context, and concept. Communicate to a broad, diverse audience and examine the influence of scientific evidence in policymaking.

JOURNAL 20801262 **Social Media Writing** **3 Credits/Units**
This course examines the rhetorical and publishing strategies used for innovative new media formats, in particular social media platforms. Students will look at the differences between linear and interactive writing, interactive publishing, and the role of the interactive writer. An emphasis is placed on the skills needed for quality storytelling via social media communication. Students will also learn how social media platforms can be used as researching tools (i.e. crowd sourcing), and they will implement social media research campaigns. Throughout the course, the students' writing and research work will be showcased as text, video, and audio stories published on their own Web/blog sites.

JOURNAL 20801269 **On-Air Performance** **3 Credits/Units**
This course is an introduction to the skills and theory of on-air radio and television/video announcing. Students will learn the on-air broadcast skills of presenting news information to mass audiences in both audio and television/video formats. Students will also examine newscast theory and the history of radio and television news.

JOURNAL 20801271 **Journalism Practicum 1** **1 Credits/Units**
Journalism Practicum 1 offers real-world journalism experiences. Students learn news reporting and writing skills by spending at least 36 hours working as a journalist for The Clarion, the college's student media organization consisting of a newspaper, a news website, a radio station, and a television news outlet.

JOURNAL 20801272 **Journalism Practicum 2** **1 Credits/Units**
Journalism Practicum 2 offers real-world experiences in journalism or strategic communications. In addition to news writing, students practice long-form journalism, feature writing, and photography. Students must spend at least 36 hours working as a journalist for a local news media outlet or as a digital content creator for a local company or non-profit organization.

JOURNAL 20801273 **Journalism Practicum 3** **2 Credits/Units**
Students practice social media writing, multimedia reporting, and radio broadcast. Students must spend at least 72 hours working as a journalist for a local news media outlet or as a digital content creator for a local company or non-profit organization.

JOURNAL 20801274 **Journalism Practicum 4** **2 Credits/Units**
Offers "managerial" experiences in journalism or strategic communications. Students must spend at least 72 hours working as a journalist for a local news media outlet or as a digital content creator for a local company or non-profit organization. Students will submit a portfolio of their work via a website platform and develop a career plan.

KINES 20807210 **Conditioning/Weight Training** **1 Credits/Units**
This course provides the learner to develop the knowledge skills process and understanding of exercise/resistance training through short lectures and physical activity using the fitness center to enhance muscular conditioning and personal fitness. The course also covers basic information about diet, nutrition, and weight management.

KINES 20807214 **Pickleball** **1 Credits/Units**
Pickleball, a fun activity for all ages, is played with a paddle and a wiffleball on a badminton sized court with a three-foot-high net. Development of basic skills, ball placement, teamwork, and match play are emphasized during extensive active practice and play.

KINES 20807215 **Walking & Running for Fitness** **1 Credits/Units**
Provides instruction on the fundamentals of walking and/or running as a lifelong form of exercise, recreation, leisure, and/or competition. Provides students of any fitness level with group instruction on walking/running basics in conjunction with individualized programming set up by the instructor.

KINES 20807219 **Introduction to Kinesiology** **2 Credits/Units**
This course is intended to introduce students to the field of Kinesiology. Introductory material about physical activity and health will be provided, and departmental faculty and invited speakers will discuss their areas of expertise. In addition, career opportunities in Kinesiology will be discussed.

KINES 20807223 **Beginning Volleyball** **1 Credits/Units**
This is an introductory course in power volleyball. It includes skills basic to the power game as well as rules and strategy for the beginner player. Fitness activities specific to volleyball will be included.

KINES 20807245 **Social Dance** **1 Credits/Units**
Social Dance is an introductory class in contemporary ballroom dance styles including the waltz, foxtrot, swing, tango and the cha-cha.

Madison Area Technical College

KINES 20807248 **Ballet** **1 Credits/Units**
Ballet introduces classical ballet technique and emphasizes the acquisition of proper ballet technique, postural alignment and increased flexibility.

KINES 20807250 **Badminton** **1 Credits/Units**
Badminton is an introductory course in competitive badminton which develops basic skills, strategy and knowledge of the rules of the game.

KINES 20807254 **Beginning Yoga** **1 Credits/Units**
Introduces the practice of yoga. Explores the philosophy that underlies yoga as a means of stress management, fitness and relaxation. Designed for beginners, the course teaches gentle movements, yoga poses, breathing techniques and meditations that relax both the mind and the body.

KINES 20807255 **Prev/Care Athletic Injuries** **2 Credits/Units**
This course is designed to give an introduction to the care and prevention of athletic injuries, including emergency care, taping techniques and treatment/rehabilitation of injuries. It is also useful for students interested in the fields of athletic training, teaching or coaching.

KINES 20807258 **First Aid and CPR** **2 Credits/Units**
This course provides students with the knowledge, analytical skills and physical skills necessary in an emergency to help sustain life, reduce pain, and minimize the consequences of injury or medical emergency.

KINES 20807264 **Intermediate Yoga** **1 Credits/Units**
Enhances the practice of yoga. Designed for participants that have yoga experience, such as completing a beginning yoga course or have been practicing yoga for 4 months or more, the course covers yoga poses, breathing techniques, and meditations that relax both the mind and the body. Continues the exploration of the philosophy that underlies yoga as a means of stress management, fitness, and relaxation. Concepts of yoga philosophy are discussed, which provides the basis for the practice of these techniques.

KINES 20807265 **Beginning Soccer** **1 Credits/Units**
This course will cover the skills, rules, strategies, and team leadership skills within soccer. It emphasizes individual and team offensive and defensive techniques, as well as dribbling, ball control, and kicking techniques. Concepts of leadership, team organization, officiating, and play are also covered. Considerable time is spent playing the game and teams will be divided as equally as possible between gender and skill level.

KINES 20807266 **Wellness Today** **3 Credits/Units**
Contemporary approach to the total wellness concept. It covers fitness and exercise, nutrition and stress management, culminating with personal planning toward lifetime wellness.

KINES 20807267 **Health & Fitness for Life** **2 Credits/Units**
A contemporary approach to the total wellness concept. It covers fitness, nutrition and stress management, culminating with personal planning toward lifetime wellness.

KINES 20807268 **Blueprint for Healthy Living** **2 Credits/Units**
Examine how exercise, nutrition, sleep hygiene, stress management, yoga, and meditation impact health and longevity. Discuss the effects of lifestyle choices and daily behavior on overall wellness. Integrate wellness principles into a written plan and practice the principles in a classroom setting.

KINES 20807269 **Stress Management Foundations** **1 Credits/Units**
Innovative approach to viewing stress as necessary and healthy, this course is designed to help individuals build resilience to stress. Combines interactive exercises, self reflective experiences, foundations of mindfulness based meditations, foundations of mindfulness based movements, guided imagery to improve mental focus, progressive muscle relaxation to aid deep relaxation, and specific breathing techniques to promote healthy self regulation and coping skills.

KINES 20807272 **Fall Team Sports** **1 Credits/Units**
This course will cover the skills, rules, and strategies of flag football, ultimate frisbee, and volleyball. It emphasizes individual and team offensive and defensive techniques as well as concepts of team organization and play. Considerable time is spent playing the game. Teams will be divided as equally as possible between gender and skill level. The course is held at Truax on the soccer pitch and gymnasium, depending on the sport and weather.

KINES 20807273 **Spring Team Sports** **1 Credits/Units**
This course will cover the skills, rules, and strategies of basketball, pickleball, and soccer. It emphasizes individual and team offensive and defensive techniques as well as concepts of team organization and play. Considerable time is spent playing the game. Teams will be divided as equally as possible between gender and skill level. The course is held at Truax on the soccer pitch and gymnasium, depending on the sport and weather.

KINES 20807274 **Roll, Release & Recover** **1 Credits/Units**
This course will help students to become more body aware through stretching, breathing and myofascial release techniques that increase flexibility and allow for range of movement of the joints and their corresponding connective tissues for increased flexibility, reduction of stress and improved mental and physical health. The course will use foam rollers and massage balls, along with breathing and recovery techniques to address flexibility.

KINES 20807280 **Movement Education & Skills Lab** **1 Credits/Units**
This course is intended to introduce future educators, coaches, and movement professionals to fundamental movement skills, the field of physical education, and teaching methodologies related to movement education.

LABASST 10513109 **Blood Bank** **4 Credits/Units**
Emphasis is focused on basic blood banking concepts and procedures including forward and reverse blood typing, screening for antibodies, antigen typing, selection of appropriate blood products and compatibility testing. Further work explores protocols to identify antibodies and workup adverse reactions to transfusions and hemolytic disease states.

LABASST 10513110 **Basic Lab Skills** **1 Credits/Units**
This course explores health career options and fundamental principles and procedures of the clinical laboratory. It incorporates medical terminology, basic laboratory equipment, safety and infection control procedures, and simple laboratory tests.

LABASST 10513111 **Phlebotomy** **2 Credits/Units**

LABASST 10513113 **QA Lab Math** **1 Credits/Units**
This course focuses on performing the mathematical calculations routinely used in laboratory settings. Students explore the concepts of quality control and quality assurance in the laboratory.

LABASST 10513114 **Urinalysis** **2 Credits/Units**
This course prepares you to perform a complete urinalysis which includes physical, chemical and microscopic analysis. You will explore renal physiology and correlate urinalysis results with clinical conditions.

LABASST 10513115 **Basic Immunology Concepts** **2 Credits/Units**
This course provides an overview of the immune system including laboratory testing methods for diagnosis of immune system disorders, viral and bacterial infections.

LABASST 10513116 **Clinical Chemistry** **4 Credits/Units**
Introduces techniques and procedures for routine analysis using photometric and potentiometric techniques, immunoassays, separation techniques, and the use of automated laboratory instrumentation. Covers pathophysiology and methodologies for analyzing carbohydrates, electrolytes, proteins and blood gases. Includes studies of cardiac markers, tumor markers, endocrine function, lipids, trace metals and enzymes.

LABASST 10513120 **Basic Hematology** **3 Credits/Units**
This course covers the theory and principles of blood cell production and function,and introduces the student to basic practices and procedures in the hematology laboratory.

LABASST 10513121 **Coagulation** **1 Credits/Units**
This course introduces theory and principles of coagulation and explores mechanisms involved in coagulation disorders. Emphasis is placed on laboratory techniques used to diagnose disease and monitor treatment.

LABASST 10513130 **Advanced Hematology** **2 Credits/Units**
This course explores mechanisms involved in the development of hematological disorders. Emphasis is placed upon laboratory techniques used to diagnose disorders and monitor treatment.

LABASST 10513133 **Clinical Microbiology** **4 Credits/Units**
This course presents the clinical importance of infectious diseases with emphasis upon the appropriate collection, handling and identification of clinically relevant bacteria. Disease states, modes of transmission and methods of prevention and control, including antibiotic susceptibility testing, will also be discussed.

LABASST 10513140 **Advanced Microbiology** **2 Credits/Units**
This course provides an overview of acid fast organisms, fungi, parasites, and anaerobic bacteria. The organisms, their pathophysiology, epidemiology, the diseases and conditions that they cause, laboratory methods of handling, culturing and identification will be discussed.

LABASST 10513141 **Pre-Clinical Experience** **2 Credits/Units**
This course provides opportunities to practice the principles and procedures of laboratory medicine in a clinical laboratory setting. Students learn to operate state of the art instruments and report results on Laboratory Information Systems. Clinical content is reviewed and students run a mock-clinical laboratory from specimen acquisition to result reporting. Resume writing and interviewing techniques are also discussed. (To be taken concurrently with courses the last semester of the program.)

Madison Area Technical College

LABASST 10513151 **Clinical Experience 1** **3 Credits/Units**
Provides opportunities to practice the principles and procedures of laboratory medicine on-site, in a clinical laboratory facility. Students will practice on state of the art instrumentation in several areas of the clinical laboratory.

LABASST 10513152 **Clinical Experience 2** **4 Credits/Units**
Provides continuing practice for the principles and the procedures of laboratory medicine as an entry level Clinical Laboratory Technician in a clinical laboratory setting. You will learn to operate state of the art instruments and report results on Laboratory Information Systems.

LABASST 10513153 **Capstone Project** **1 Credits/Units**
Students will prepare a portfolio of professional experiences, assessments and evaluations, class projects and a resume for employment.

LABASST 10513170 **Introduction to Molecular Diagnostics** **2 Credits/Units**
The Molecular Diagnostics course will give students background knowledge in DNA and RNA structure and functioning including nuclear packaging, transcription, translation and modifications. We will also cover basic genetic inheritance. Specific methods we will perform or discuss will include nucleic acid isolation and detection, target amplification and sequencing of target genes. We will also address the use of molecular methods to identify microorganisms, classify neoplasms and characterize MCH loci.

LOGMGT 10182101 **Supply Chain Fundamentals** **3 Credits/Units**
This course will provide an understanding of the fundamental concepts of supply chain management. The learner will explore all functional areas of supply chain management with an integrated view of procurement, manufacturing and operations management, transportation and logistics, inventory and warehousing, demand planning, scheduling, and performance management.

LOGMGT 10182104 **Inventory Management** **3 Credits/Units**
This course provides an operational knowledge and understanding of inventory management principles and techniques, sourcing strategies, the fundamental role of purchasing, purchase order management, ordering and stocking techniques, roles and responsibilities, and the impact inventory has on a business. Students will have an opportunity to learn and practice inventory management techniques and concepts to minimize cost of inventory while meeting customer demand using practical examples and exercises.

LOGMGT 10182122 **Logistics Management** **3 Credits/Units**
Introduces the foundations of planning and control in distribution and logistics. Explore the basics of logistics management, designing supply and distribution channels, and the principles and activities of warehousing and transportation management. Through discussion and problem solving, participants will learn about the role of logistics in supply chain management.

LOGMGT 10182136 **Scheduling Fundamentals and Supply Chain Technologies** **3 Credits/Units**
Focuses on utilizing technologies to optimize resources to meet customer demand considering customer demand, material availability, equipment availability and capacity, and labor. Explore ERP systems, master scheduling, centralized and decentralization of scheduling, and subcontracting.

LOGMGT 10182138 **Purchasing** **3 Credits/Units**
Students will explore the impact of purchasing activities on the success and profitability of the organization, and consider the demands made on purchasing by various internal and external stakeholders. Activities include the purchasing process, tactical purchasing versus strategic procurement, strategic sourcing, supplier development and maintenance. Students will also explore contractual, ethical, legal, risk management, and sustainability issues faced by today's purchasing professionals.

MACHT 10606200 **Interpreting Engineering Drawings** **2 Credits/Units**
Focuses on the basic principles of engineering drawings and manufacturing processes. Through interpretation and sketching, students learn to visualize the part, section or assembly views. Students study isometric and orthographic views on a drawing. The student will also use drawings pertinent to the trades with examples in GD&T, welding, facilities, piping, sheet metal, equipment manuals, electrical symbols, and fluid power symbols.

MACHT 10606201 **Interpreting Engineering Drawings Part A** **1 Credits/Units**
Basic principles of engineering drawings and manufacturing procedures. Through interpretation and sketching, students learn to visualize the part, section or assembly. Uses drawings pertinent to the trades with examples in Welding, Facilities, Piping and Instrumentation (P & ID's), Sheet Metal, Equipment Manuals (technical documents, installation/repair manuals), Electrical Symbols, and Fluid Power Symbols.

MACHT 32420322 **Machine Tool 1** **4 Credits/Units**
Introduces the basic concepts and skills using engine lathes, power saws, Drill presses and bench applications. Emphasizes safety and proper operation of tools and machines, speeds, feeds, cutting tools, tool geometry, tool grinding and work-holding devices. Stresses dimensional accuracy, finish and quality as well as team-building and work ethics.

Madison Area Technical College

MACHT 32420323 **Machine Tool 2** **5 Credits/Units**
Expands on basic concepts and skills using engine lathes, power saws, drill presses, bench applications, CNC setup and operation. Emphasizes safety and proper operation of tools and machines, speeds feeds, cutting tools, tool geometry, tool grinding and work-holding devices. Stresses dimensional accuracy, finish and quality with team-building and work ethics.

MACHT 32420324 **Machine Tool 3** **4 Credits/Units**
Expands the concepts and skills using engine lathes, power saws, drill presses, bench applications, and advanced CNC setup and operation. Emphasizes safety and proper operation of tools and machines, speeds feeds, cutting tools, tool geometry, tool grinding and work-holding devices. Stresses dimensional accuracy, finish and quality with team-building and work ethics.

MACHT 32420325 **Machine Tool 4** **5 Credits/Units**

Expands on basic concepts and skills using engine lathes, power saws, drill presses, bench applications, CNC setup and operation. Emphasizes safety and proper operation of tools and machines, speeds feeds, cutting tools, tool geometry, tool grinding and work-holding devices. Stresses dimensional accuracy, finish and quality with team-building and work ethics.

MACHT 32420326 **Machine Tool 5** **4 Credits/Units**
Skills and knowledge necessary for advanced setups and procedures on milling machines, grinders, and lathes. Introduces both tool and cutter grinding and the selection and use of carbide tooling. Special emphasis is given to Electrical Discharge Machine and electrode development. CNC machining applications to complete course projects is enhanced. Safety, precision measurement and craftsmanship are stressed.

MACHT 32420327 **Machine Tool 6** **5 Credits/Units**
Provides the student with the skills and knowledge necessary for advanced setups and procedures on milling machines, grinders, and lathes. Students are also introduced both tool and cutter grinding and the selection and use of carbide tooling. Special emphasis is given to Electrical Discharge Machine and electrode development. CNC machining applications to complete course projects is also enhanced. Building a stamp die. Safety, precision measurement and craftsmanship are stressed.

MACHT 32420328 **Machine Tool 7** **4 Credits/Units**
Set-up and operate a CNC EDM machine, CNC machining center, and select and use superabrasives for grinding and machining. Advanced machining setups, procedures, and operations will be covered to enable students to accomplish the machining projects. Safety, precision measurement, and craftsmanship are stressed.

MACHT 32420329 **Machine Tool 8** **5 Credits/Units**
Set-up and operate a CNC EDM machining center, and select and use superabrasives for grinding and machining. Includes advances machining setups, procedures, and operations to accomplish the machining of a small MUD plastic injection mold or special machining project. Safety, precision measurement, and craftsmanship are stressed.

MACHT 32420330 **Metal Processes 1** **2 Credits/Units**
This basic metalworking course is designed to provide the student with instruction in metalworking processes. Instructional units include safety, layout and measuring, machining, oxy-acetylene welding, brazing and cutting, arc welding and properties of metals.

MACHT 32420336 **Manufacturing w/Solid Modeling 3D** **2 Credits/Units**
This course builds on the concepts learned in Manufacturing w Solid Modeling--2D. Learners will utilize Solid Modeling software and CAM software to create true 3D models with surfacing concepts. Students will gain competency in file management by saving, converting, and working with different file types. Learners will create geometry in each application and convert files between CAD and CAM. Students will apply various tool paths theories to the designs they have created. Such theories include Surfacing, High Speed Machining, Hard Milling/Turning, 2 and 4 Axis Wire, Live lathe tooling and 4 Axis milling

MACHT 32420337 **Manufacturing w/Solid Modeling-2D** **2 Credits/Units**
This course offers instruction on individual computer workstations in a computer lab. This computer-aided drafting (CAD) instruction uses Solid Modeling software that is capable of creating 3D models and manufacturing drawings. In this course you will spend half of the time creating 3D models using 2 and 2.5D features while exploring the concepts of working in 3D space. Once the solid models are created students will import the solid models into CAM (Computer-aided manufacturing) software and utilize machining concepts to produce manufactured part using 2.5D programming methods such as pocketing, contouring & drilling for milling machines as well as turning, facing, grooving and threading for turning centers.

MACHT 32420339 **Manufacturing w/Solid Modeling-Advanced** **2 Credits/Units**
This advanced course requires students to draw complex solid models utilizing CAD software. These Models will then be imported into CAM software to use advanced programming methods to produce high quality parts. Mill Programming will include 2D, 2.5D, 3D, 4-Axis and an introduction to 5 Axis and 3+2 techniques. Lathe programming will include advanced turning and live tooling.

MACHT 32420346 **Intro to CNC - G-code Programming** **2 Credits/Units**
Hands-on and lecture course exposing student to Computer Numerical Control (CNC). Emphasizes CNC vertical milling machines and CNC turning centers. Covers history, basic CNC understanding and beginning programming including G-codes, M-codes. Students will utilize simulation software that will verify manually written code.

Madison Area Technical College

MACHT 32420348 Applied CNC-Conversational and Setup 2 Credits/Units
This introductory Applications class familiarizes students with the basic setup procedures of CNC milling machines and CNC turning centers. They will set up rough stock and execute existing programs to produce finished parts. Once students learn these concepts they utilize the conversational programming software on the various CNC machines to program and produce parts.

MACHT 32420349 Basic Metrology (Part A) 1 Credits/Units
This course introduces the principles of basic dimensional measurement, layout techniques for machines, use of direct and indirect measuring tools as well as the use of length standards relative to calibration of measuring instruments and the basic operation of the Coordinate Measuring Machine.

MACHT 32420351 Elements of Basic Metrology 2 Credits/Units
This course introduces the principles of basic dimensional measurement, layout techniques for machines, use of direct and indirect measuring tools as well as the use of length standards relative to calibration of measuring instruments and the basic operation of the Coordinate Measuring Machine.

MACHT 32420389 Applied CNC - Intermediate Operations 2 Credits/Units
This applications class builds on CNC concepts learned in previous classes. Emphasis is on CNC Turning Center, CNC Milling machine, and CNC Wire set up and operation. Students will produce parts that they have modeled and programmed in Manufacturing w/Solid Modeling 1 and 2 as well as instructor provided programs.

MACHT 32420390 Fundamentals of Metallurgy 2 Credits/Units
Introduces metallurgy, emphasizing applications, selection, identification methods and alloy influences. Studies metal properties using testing, micro-structure interpretation and heat-treatment processes. Covers tool steels, weld heat effects, failure analysis and machinability variations in cast iron, alloy steels and non-ferrous materials in detail.

MACHT 32420393 Machine Tool-Occupational Development 1 Credits/Units
The Machine Tool Occupational Development class is designed to help students entering the Machining, CNC and Tool and Die industries in the development of the necessary documents, attitudes and insights needed to find and secure employment. The course includes resume building, cover letters and follow-up documents, job searches, interviewing, workplace ethics and responsible employee behaviors. The course also includes information on Apprenticeships, career and financial planning and exploration of local businesses. This course requires the use of computer technology and assignments will be submitted in both a hard copy and electronic format.

MACHT 32420394 Tool Making Theory 1 2 Credits/Units
Lecture course supporting Machine Tool 5 & 6 lab activities. Major emphasis on the nomenclature, theory, construction features, design, and the technology of stamping and forming dies. Student also will spend time designing and planning a special die, mold or advanced CNC project.

MACHT 32420395 Tool Making Theory 2 2 Credits/Units
Lecture course supporting Machine Tool 7 & 8 lab activities. Major emphasis on nomenclature, theory, construction features, design and the technology of mold dies. The seven molding processes will be discussed. Students also will spend time designing and planning a special mold, tool, or CNC project.

MACHT 32420491 Applied CNC - Advanced Operations 2 Credits/Units
Our most advanced CNC applications course devoted to machining complex tool paths, including mold cavities and graphite electrodes. Stresses hands-on instruction and operation of CNC turning centers, vertical milling machines, machining centers.

MACHT 32420711 Math for the Machine Trades 2 Credits/Units
Provides applied mathematics instruction from a review of basic arithmetic; basic algebra; applications, based on geometry; right triangle trigonometry.

MACHT 50420710 Safety for Machine Tool Trade Apprentices 0.25 Credits/Units
Examines safe work practices for machinists, tool and die makers and related trades. Apprentices will explore industrial safety standards; personal protective equipment; machine guards and protective devices; MSDS and chemical safety; electrical hazards, and more. Course relates 5S concepts to safe work practices and trade work processes.

MACHT 50420711 Mathematics for the Machine Trades 1 Credits/Units
Provides applied mathematics instruction from a review of basic arithmetic; basic algebra; applications, based on geometry; right triangle trigonometry, oblique angle trigonometry and compound angles. This course was formerly module 1 in related instruction.

MACHT 50420712 Communications for Apprentices 0.5 Credits/Units
Introduces the apprentice to basic communication concepts relating to the workplace. It is designed specifically for the apprentice to acquire the necessary skills of giving instructions, writing a technical memo, and explaining a technical process. Throughout the course the apprentice will brainstorm, write, edit, revise, and use one-on-one communication delivery in a small group. The course combines lecture and hands-on activities utilizing information which the apprentice brings from the workplace.

Madison Area Technical College

MACHT 50420713 Precision Measurement for Machine Tool Trade Apprentices 1 Credits/Units
Designed to acquaint the apprentice with the measurement systems and tools most frequently used in layout and machining processes. Learning outcomes relate to semi-precision through super-precision measuring tools and equipment combined with opportunities to investigate new technologies.

MACHT 50420714 Engineering Drawings for Machine Tool Trades Apprentices 1 Credits/Units

Acquaints the apprentice with the interpretation of engineering prints and other technical and manufacturing documentation. The primary focus will be on that part of manufacturing most closely related to machining and tooling. Background information is provided relative to the process used to create and finish the product or piece part on the prints being studied. This course was formerly module 4 in related instruction.

MACHT 50420715 Mechanical Hardware & Hand Tools for Machine Trades Apprentices 1 Credits/Units
Provides instruction for the apprentice in recognition, selection, and operation of mechanical hardware and hand tools. Apprentices are taught to use outside sources to select correct component or tool sizes, characteristics, and operating parameters. Apprentices will sharpen drills and single point cutting tools.

MACHT 50420716 Turning Machines for Machine Trades Apprentices 0.5 Credits/Units
Acquaints the apprentice with the terminology, methods, and operations for turning machines used in the metal-working industry. Apprentices will learn to perform calculations needed to operate turning machines including speed and feed calculations. Apprentices will make calculations necessary to setup a turning machine for screw threads and taper operations.

MACHT 50420717 Milling Machines for Machine Trades Apprentices 0.5 Credits/Units
Related instruction on the basic principles of vertical and horizontal milling machines for the machine tool apprentice. Instruction includes safety, basic parts and functions of the machines, work holding devices, tooling requirements, and feeds and speeds.

MACHT 50420718 Drilling Machines for Machine Trades Apprentices 0.5 Credits/Units
Focuses on the terminology, construction, and operations of drilling machines in the metal-working industry. Be aware that in-depth information regarding cutting tools, hardware, and hand tools will be addressed in their own courses. Efforts should be made to reference information found in other courses in order to assist the apprentice in the application and assimilation of information.

MACHT 50420719 Grinding Machines for Machine Trades Apprentices 0.5 Credits/Units
Focuses on the terminology, construction and operations of grinding machines in the metal-working industry. Be aware that in-depth information regarding cutting tools, hardware and hand tools will be addressed in their own courses. Efforts should be made to reference information found in other courses in order to assist the apprentice in the application and assimilation of information. This course instructs apprentices in the use of traditional grinding machines and the attachments and accessories frequently encountered in manufacturing operations that use common grinding processes.

MACHT 50420720 Cut-Off Machines for Machine Trades Apprentices 0.25 Credits/Units
Acquaints the apprentice with the basic types of cutoff machines used in industry, cutoff machine applications, cutoff machine tooling, and cutoff machine safety.

MACHT 50420721 Metallurgy & Materials for Machine Trades 1 Credits/Units
Provides the opportunity for the apprentice to develop the knowledge, skills, process, and understanding of hardness testing, carbons and low alloy steel, tool steels, stainless steels, cast iron, aluminum and aluminum alloys, die cast alloys, copper and copper alloys, plastics, heat treating and nondestructive testing. This course was formerly module 11 in related instruction.

MACHT 50420723 Electrical Discharge Machining for Machine Tool Trade Apprentices 0.5 Credits/Units
This course is designed to give the apprentice a basic understanding of the theory and process of sinker and wire EDM in toolmaking. This course uses the EDM Technical Manual distributed by POCO Graphite, Inc., which contains the most current information available in the industry. Competencies are designed for apprentices working in tool & die technologies using EDM.

MACHT 50420724 CNC Programming and Planning for Machine Trades Apprentices 1 Credits/Units
Introduction to CNC programming for apprentices, with a focus on CNC turning and milling centers. Apprentices will create setup sheets, develop tool lists, calculate speeds and feeds, assign tool offsets and write CNC programs.

MACHT 50420725 Basic CAD/CAM for Machine Trades Apprentices 1 Credits/Units
Designed to provide the apprentice with the concepts and techniques used in computer-aided design (CAD) and computer-aided manufacturing (CAM) as part of their related instruction.

MACHT 50420726 Jig and Fixture Design for Machine Trades Apprentices 0.5 Credits/Units
Introduces the apprentice to the concepts of jig and fixture design as part of their apprenticeship related instruction. Topics include the basic elements of tool design, jig and fixture application, and the actual design of tooling.

MACHT 50420727 Geometric Design and Tolerancing for Machine Trades Apprentices 0.5 Credits/Units
Acquaints the apprentice with the skills to interpret the geometric dimensions and tolerances found on engineering drawings and in other industrial documents. Instruction concentrates on interpreting the symbols, identifying tolerance zones and determining ways to check parts for conformity to the specified geometric controls. Reference is made to ASME Y14.5M - 1994.

MACHT 50420728 Stamping Diemaking for Machine Tool Trade Apprentices 1 Credits/Units
Introduces the apprentice to the basics of stamping and diemaking. Topics include the basic terminology, blanking, piercing, bending and related basic operations. In addition learners will discover the basics of the theory and background knowledge related to stamping and die making. This course was designed for related instruction for tool and die, stamping die and mold makers.

MACHT 50420729 Mold Making for Machine Tool Trade Apprentices 1 Credits/Units
Introduces the apprentice to the basic mold making process, mold construction and components, and materials. The course provides related instruction for the tool and die, stamping die and mold makers apprenticeship programs.

MACHT 50420730 Stamping Design Applications for Machine Trades Apprentices 1 Credits/Units
This course provides the stamping die maker apprentice with the opportunity to design from part specifications two elementary stamping dies. This course provides related instruction for the tool and die, stamping die and mold makers apprenticeship.

MACHT 50420731 Molding Die Design Applications for Machine Tool Trade Apprentices 1 Credits/Units
Provides the Mold Maker apprentice with their final experience in the related instruction portion of their apprenticeship. The apprentice will design a cavity mold and a core and cavity mold using either manual drafting or computer software to complete these projects. This course provides related instruction for the tool and die, stamping die and mold makers apprenticeships.

MACHT 50420732 Machine Tool Apprenticeship Greening Competencies - SAGE Project 0.5 Credits/Units
Competencies were designed to be included in the related instruction for the machine tool trades apprenticeships. Competencies may be introduced in this course and then reinforced in other courses that make up related instruction. For example, competencies 1, 3, 4 and 9 could be reinforced in the safety courses, and competencies 2, 5, 6, 7, and 8 could be reinforced in the various machining courses.

MACHT 50420733 CNC Operations for Machine Tool Trades Apprentices 1 Credits/Units
Apprentices will examine CNC related operations and safety. Course competencies include classifying types of equipment, comparing CNC tooling, setup, and work holding operations. Additional CNC programming skill development is included in the course. CNC controls and communications are explored as well.

MACHT 50420740 Mathematics for the Machine Trades 1.25 Credits/Units
This course provides applied mathematics instruction from a review of basic arithmetic. Apprentices will apply basic algebra, geometry and trigonometry to various machining operations and processes.

MACHT 50420741 Metallurgy & Materials for Machine Trades Apprentices 0.5 Credits/Units
This course provides the opportunity for the apprentice to develop the knowledge, skills, process, and understanding of hardness testing and heat treating of various materials.

MACHT 50420742 Turning Machines for Machine Trades Apprentices 1 Credits/Units
This course will acquaint the apprentice with the terminology, methods, and operations for turning machines used in the metal-working industry. Apprentices will learn to perform calculations needed to operate turning machines including speed and feed calculations. Apprentices will make calculations necessary to setup a turning machine for screw threads and taper operations.

MACHT 50420743 Milling Machines for Machine Trades Apprentices 1 Credits/Units
This course will have the apprentice analyze the basic principles of vertical and horizontal milling machines. Apprentices practice safety measures while exploring basic parts and functions of the machines, work holding devices, tooling requirements, and feeds and speeds.

MACHT 50420744 CAD/CAM for Machine Trades 1.5 Credits/Units
This course is designed to provide the apprentice with the concepts and applied techniques used in computer-aided design (CAD) and computer-aided manufacturing (CAM).

MACHT 50420745 CNC Programming and Operations 1 for Machine Trades Apprentices 1 Credits/Units
Apprentices will examine CNC related operations and safety. Course competencies include classifying types of equipment, comparing CNC tooling, setup, and work holding operations and CNC controls.

MACHT 50420746 **CNC Programming and Operations 2 for Machine Tool Trades Apprentices**

2 Credits/Units

This course is a classroom/lab introduction to CNC programming for apprentices, with a focus on CNC turning and milling centers. Apprentices will create setup sheets, develop tool lists, calculate speeds and feeds, assign tool offsets and write CNC programs.

MASST 31509301 **Medical Asst Admin Procedures** **2 Credits/Units**

Introduces medical assistant students to office management and business, business administration, and the electronic medical record (EMR) in the medical office. Students learn to schedule appointments, perform filing, record keeping, inventory of supplies, telephone and reception duties, as well as effective communication with patients and other medical office staff.

MASST 31509302 **Human Body in Health & Disease** **3 Credits/Units**

Focuses on diseases that are frequently first diagnosed and treated in the medical office setting. Students learn to recognize the causes, signs, and symptoms of diseases of the major body systems as well as the diagnostic procedures, usual treatment, prognosis and prevention of common diseases. Prerequisite or Corequisite: Medical Terminology, 31501101

MASST 31509303 **Medical Asst Lab Procedures 1** **2 Credits/Units**

Introduces medical assistant students to laboratory procedures commonly performed by medical assistants in a medical office setting. Students perform CLIA waived routine laboratory procedures commonly performed in the ambulatory care setting. Students follow laboratory safety requirementsand federal regulations while performing specimen collection and processing, microbiology and urinalysis testing.

MASST 31509304 **Medical Asst Clin Procedures 1** **4 Credits/Units**

Introduces medical assistant students to the clinical procedures performed in the medical office setting. Students perform basic examining room skills including screening, vital signs, patient history, minor surgery and patient preparation for routine and speciality exams in the ambulatory setting.

MASST 31509305 **Med Asst Lab Procedures 2** **2 Credits/Units**

Prepares students to perform laboratory procedures commonly performed by medical assistants in the ambulatory care setting under the supervision of a physician. Students perform phletomony, immunology, hematology and chemistry laboratory procedures. Prerequisite: All first semester courses. Corequisite: Medical Assistant Clinical Procedures 2, 31-509-306 and Medical Assistant Practicum, 31-509-310.

MASST 31509306 **Med Asst Clin Procedures 2** **3 Credits/Units**

Prepares students to perform EKG, spirometry, and administer medications including topical, oral, and injectable. Must have completed all first semester courses.

MASST 31509307 **Medical Office Insurance & Finance** **2 Credits/Units**

Introduces medical assistant studies to health insurance and finance in the medical office. Students perform bookkeeping procedures, apply managed care guidelines and complete insurance claim forms. Students used medical coding and managed care terminology to perform insurance-related duties. Prerequisites: Medical Terminology, 10-501-101; Human Body in Health & Disease; 31-509-302; and computer courses.

MASST 31509308 **Pharmacology for Allied Health** **2 Credits/Units**

Introduces students to medications and basic pharmacology principles. Students apply basic pharmacodynamics to identify common medications and calculate dosages in preparation for medication administration.

MASST 31509309 **Medical Law, Ethics and Professionalism** **2 Credits/Units**

Prepares students to display professionalism and perform within ethical and legal boundaries in the health care setting. Students maintain confidentiality, examine legal aspects of the medical record, examine legal and bioethical issues, and demonstrate awareness of diversity. Prerequisites or Corequisites: 10-501-101 and 31-509-302.

MASST 31509310 **Medical Assistant Practicum** **3 Credits/Units**

Requires medical assistant students to integrate and apply knowledge and skills from all previous medical assistant courses in actual ambulatory health care settings. Learners perform medical assistant administrative, clinical, and laboratory duties under the supervision of trained mentors to effectively transition to the role of a medical assistant. This is a supervised, unpaid, clinical experience. Prerequisites: Medical Assistant Lab Procedures 1, 31-509-303; Medical Assistant Clinical Procedures 1, 31-509-304; corequisites: Medical Assistant Lab Procedures 2, 31-509-305; Medical Assistant Clinical Procedures 2, 31-509-306.

Madison Area Technical College

MATH 10804107 **College Mathematics** **3 Credits/Units**
This course reviews key math concepts in algebra, geometry, trigonometry, measurement, and data. Topics include simplifying algebraic expressions, solving linear equations and inequalities with one variable, proportions, and percent applications, and working with geometric figures. It covers the Pythagorean Theorem, trigonometric ratios, and unit conversions between U.S. customary and metric systems. Data analysis focuses on organizing and summarizing data, central tendency, and measures of dispersion. Emphasis is on problem-solving, critical thinking, and logical reasoning.

MATH 10804113 **College Technical Math 1A** **3 Credits/Units**
Topics include: solving linear, quadratic, and rational equations; graphing; formula rearrangement; solving systems of equations; percent; proportions; measurement systems; and operations in polynomials. Emphasis will be on the application of skills to technical problems.

MATH 10804114 **College Technical Math 1B** **2 Credits/Units**

Topics include: computational geometry; right and oblique triangle trigonometry; and trigonometric functions on the unit circle. Emphasis will be on the application of skills to technical problems.

MATH 10804115 **College Technical Math 1** **5 Credits/Units**
Topics include: solving linear, quadratic, and rational equations; graphing; formula rearrangement; solving systems of equations; percent; proportions; measurement systems; computational geometry; right ans oblique triangle trigonometry; trigonometric functions on the unit circle; and operations in polynomials. Emphasis will be on the application of skills to technical problems.

MATH 10804116 **College Technical Math 2** **4 Credits/Units**
Topics in College Technical Mathematics 2 include: vectors; trigonometric functions and their graphs; identities; exponential and logarithmic functions and equations; radical equations; equations with rational exponents; equations of a circle; velocity; sine and cosine graphs; complex numbers in polar and rectangular form; trigonometric equations; conic sections; and analysis of statistical data. Emphasis will be on the application of skills to technical problems.

MATH 10804123 **Math with Business Applications** **3 Credits/Units**
This course integrates algebraic concepts, proportions, percents, simple interest, compound interest, annuities, and basic statistics with business/consumer scenarios. It also applies math concepts to the purchasing/buying and selling processes.

MATH 10804134 **Mathematical Reasoning** **3 Credits/Units**
All college students, regardless of their college major, need to be able to make reasonable decisions about fiscal, environmental, and health issues that require quantitative reasoning skills. A collaborative, activity-based approach is used in this course to explore numerical relationships, graphs, proportional relationships, algebraic reasoning, and problem solving using linear, exponential and other mathematical models. Students will develop conceptual and procedural tools that support the use of key mathematical concepts in a variety of contexts. This course is not designed for Science, Engineering, or Math students and/or others who require calculus. This course may be used as the prerequisite for Quantitative Reasoning, Principles of Geometry, General Chemistry, and/or Survey of Physics.

MATH 10804144 **Math of Finance** **3 Credits/Units**
This course takes an algebraic approach to solving financial problems. Topics include personal finance and retirement, mathematics of retailing, mathematics of banking and lending, and statistical applications. Major emphasis is placed on solving problems involving the time value of money by using a financial calculator. The material in this course develops a sound base for subsequent courses by using an analytical approach to problem solving.

MATH 20804200 **Principles Of Geometry** **3 Credits/Units**
This is an introductory college level course that provides a foundation in geometry necessary for the study of analytic geometry, trigonometry, or calculus. The class covers the facts of geometry, cultivates geometric intuition, and fosters the practice of deductive reasoning.

MATH 20804201 **Intermediate Algebra** **4 Credits/Units**
This course covers algebraic concepts with applications, an introduction to functions, and complex numbers. Students create and use equations involving one and two variables to solve problems. Topics include graphing and finding algebraic solutions for linear equations and inequalities, quadratic, exponential, polynomial, radical, and rational equations, as well as solving systems of equations. Students are introduced to linear, quadratic, square root, absolute value, exponential and logarithmic functions. The basic definitions of functions, relations, one-to-one functions and inverses are discussed along with the algebra and composition of functions.

MATH 20804202 **Intermediate Algebra Part 1** **3 Credits/Units**
Understand the structure of the real numbers (their construction, operations and properties); solve first degree (linear) equations and inequalities in one variable; graph first degree equations and inequalities in two variables; be introduced to the concept of the function and the use of functional notation; solve systems of equations in a two-dimensional Cartesian plane; perform algebraic operations on polynomials; factor algebraic expressions; solve polynomial equations by factoring and solve applications problems that relate to all of the above. Transferability: by itself this course does not transfer; however, upon successful completion of this course and 20-804-203, Intermediate Algebra 2, four credit hours of Intermediate Algebra are available for transfer.

Madison Area Technical College

MATH 20804203 Intermediate Algebra Part 2 3 Credits/Units
This course is a continuation of Intermediate Algebra 1, 20-804-202. Students expand their understanding of the structure of the real numbers (their construction, operations and properties); perform algebraic operations on rational and radical expressions; solve rational and radical equations; solve inequalities; solve absolute value equalities and inequalities; solve systems of three equations in three variables using the methods of substitution, addition (elimination), matrices and determinants; study complex numbers (their construction, operations and properties); solve second degree equations and inequalities in one variable; graph quadratic equations; solve exponential and logarithmic equations; understand and use functional notation and the arithmetic of functions; and solve application problems relative to the above topics. Transferability: upon successful completion of this course and 20-804-202, Intermediate Algebra 1, four credit hours of Intermediate Algebra are available for transfer.

MATH 20804210 Math for Elementary Teachers 3 Credits/Units
This course will challenge students to think mathematically rather than mastering any particular mathematical facts. The focus is more on how you learn rather than on what you learn. This course is an introduction to problem solving and mathematical thinking. The focus of this course is on the process of mathematics rather than specific techniques or content. Students will engage in mathematical problem solving in a variety of contexts and learn a number of ways of approaching new problems which are broadly applicable.

MATH 20804211 Quantitative Reasoning 3 Credits/Units
This course is intended to develop analytic reasoning and the ability to solve quantitative problems. Topics to be covered may include: construction and interpretation of graphs; descriptive statistics; geometry and spatial visualizations; math of finance; functions and modeling; probability; and logic. Appropriate use of units and dimensions, estimates, mathematical notation and available technology will be emphasized throughout the course. Note: This course satisfies Part A of the Quantitative Reasoning requirement for the UW system and is intended for students who do not plan to take any further mathematics.

MATH 20804212 College Algebra 3 Credits/Units
This course covers skills needed for success in Calculus and many application areas at the baccalaureate level. Topics include the real and complex number systems, polynomials, exponents, radicals, solving equations and inequalities, relations and functions, systems of equations and inequalities, graphing, and conic sections.

MATH 20804213 Trigonometry 3 Credits/Units
Includes study of the six trigonometric functions and their inverse functions; solve right and oblique triangles; know and apply basic identities and simplify trigonometric expressions using identities; solve trigonometric equations; graphing trigonometric functions; understand and use complex numbers and polar coordinates; solve application problems that rely on trigonometry.

MATH 20804214 Math for Elementary Teachers 2 3 Credits/Units
A second course in mathematics needed for teaching K-8. Emphasis will be on the student communication how and why standard and alternative algorithms work. Content will focus on problem solving strategies and word problems involving geometry, measurement, algebra, statistics, and probability. The courses in this sequence can be taken in any order.

MATH 20804220 Finite Math 3 Credits/Units
Finite Mathematics provides the necessary mathematical preparation for the understanding of various quantitative methods in modern management theory and the social sciences. The topics included are: sets, relations, linear functions, matrix theory, the solutions of linear systems by graphical, algebraic, Gauss-Jordan, and inverse matrix methods, linear programming by graphical and simplex methods, the mathematics of finance, counting and probability, game theory, decision theory, and other related topics.

MATH 20804221 Calculus Methods for Business and Social Sciences I 5 Credits/Units
Calculus Methods for Business and Social Sciences I is an introduction to calculus and related topics designed primarily for pre-business and social science students. The course covers the essential concepts of differential and integral calculus for one and several variables. The topics to be covered are functions, derivatives and their applications, exponential and logarithm functions, integration and its applications, integration techniques, calculus of several variables, and differential equations.

MATH 20804229 Precalculus 5 Credits/Units
An integrated treatment of topics from college algebra and trigonometry that lays a sound foundation for higher courses in mathematics. This course includes linear and quadratic functions, other polynomial functions, rational functions, radical functions, exponential and logarithmic functions, the trigonometric functions, and some analytic geometry in the plane.

MATH 20804231 Calculus and Analytic Geometry 1 5 Credits/Units
This course covers differential and integral calculus, plane analytic geometry, applications and the porperties and uses of elementary transcendental functions. The course provides an introduction to the basic properties of limits, rate of change of functions, continuity, derivatives of algebraic and elementary transcendental functions, their products quotients and compositions, curve sketching, finding maxima and minima, and indefinite and definite integration with applications. This is the first course in a three-semester calculus sequence completed with Calculus III 20-804-233, which is normally required for all higher-level math courses and should be taken by those preparing for major study in mathematics, the physical sciences, computer sciences, or engineering. It is also recommended for students in the social and life sciences who may want a substantial introduction to calculus.

MATH 20804232 Calculus and Analytic Geometry 2 5 Credits/Units

Calculus and Analytic Geometry 2 is designed for students of mathematics, science, and engineering. Topics covered include the techniques of integration, analysis of infinite sequences and series, an introduction to first-order differential equations, parametric equations and derivatives of parametric curves, polar coordinates in the plane and integrals using polar coordinates, the analytic geometry of the conic sections, an introduction to vectors in two and three dimensions, scalar and vector cross products, and graphs of quadric surfaces.

MATH 20804233 Calculus 3 5 Credits/Units

Calculus 3 is designed for students of mathematics, science, and engineering. Topics covered include differentiation and integration of vector functions, space curves and curvature, motion in space, scalar functions of more than one variable, level curves and level surfaces, limits and continuity, partial derivatives, total differential, tangent planes, the gradient operator, the directional derivative, multivariable forms of the chain rule, locating maxima, minima, and saddle points, the method of Lagrange multipliers, multiple integrals in rectangular, polar, cylindrical and spherical coordinates, transformations of multiple integrals and the Jacobian, surface area, applications of multiple integrals to geometry and mechanics, line integrals in two and three dimensions, vector fields, circulation and flux in two dimensions, Green's Theorem, the curl and divergence operators, surfaces and surface area defined parametrically, Gauss's and Stokes' Theorems, applications of vector calculus to geometry, mechanical work, fluid mechanics and electromagnetic fields.

MATH 20804240 Basic Statistics 4 Credits/Units

Appropriate statistical techniques are studied for the systematic collection, presentation, analysis and interpretation of experimental results, including surveys and quality control. The focus is on understanding the techniques of statistical inference (confidence intervals and hypothesis testing) and interpreting results as found in articles and reports. Emphasizes the inherent uncertainty when decisions are made based on sample data. Includes descriptive statistics, basic probability theory, sampling distributions and the Central Limit Theorem; the binomial, normal, Student t, chi-square, and F distributions; and techniques of 1- and 2-sample tests, linear regression, correlation, and an introduction to analysis of variance.

MATH 20804241 Introduction to Engineering Statistics 3 Credits/Units

This is an introductory course with many examples and applications chosen from the engineering disciplines and physical science. The course covers techniques for the collection, presentation, analysis and interpretation of experimental results and develops procedures to deal with the uncertainty present in making inferences and decisions based on sample data. Topics covered include descriptive statistics; probability concepts, random variables and discrete probability distributions; continuous probability and sampling distributions, the Central Limit Theorem; hypothesis tests and confidence intervals for one- and two-sample problems; one-way analysis of variance and basic ideas in experimental design; linear regression, model checking, and inference.

MATH 20804255 Techniques in Ordinary Differential Equations 3 Credits/Units

This course presents techniques for solving and approximating solutions to ordinary differential equations. Topics will include solving first order differential equations, solving second-and higher-order linear differential equations, Laplace and Fourier transforms, systems of first order linear differential equations, numerical methods, and Sturm-Liouville Theory.

MATH 20804256 Elementary Matrix and Linear Algebra 3 Credits/Units

This course covers the principles of linear algebra and the theory of matrices with an emphasis in understanding the fundamental concepts and being able to perform calculations. An introduction to formal, logically sound proofs of important theorems is also integrated into the course.

MATH 20804265 Introduction to Discrete Mathematics 3 Credits/Units

Introduces students to discrete mathematical techniques and structures, such as logic, integers, recursion, sets, counting, probability, graphs, trees, and algorithms. The course also develops students' ability to think mathematically and write proofs. Many applications are drawn from computer science, and the course prepares computer science students for future study. The course is also suitable for majors in mathematics, math education, and engineering, as well as anyone interested in the beauty of numbers, patterns, and logical reasoning.

MATH 31804379 Vocational Math 1 1 Credits/Units

Vocational Mathematics 1 is a review of basic mathematics that consists of an introduction to using a scientific calculator, order of operations, fractions, decimals, use of percentage, units of measurement including the metric system, the reading of analog instruments for length measurement, and practical plane geometry.

MECTEC 10606100 Engineering Technology Communications 3 Credits/Units

Develops skills in creating engineering sketches through the application of drafting standards and procedures. Principles covered include view selection, orthographic projection, section and auxiliary views, and their utilization in working drawings. The need for engineering sketching is reinforced through a hands-on project requiring measurement, inspection and sketching of orthographic views. In addition, materials, fabrication and assembly methods related to the project will also be explored.

MECTEC 10606101 Engineering Technology Fundamentals 2 Credits/Units

Introduces the student to the knowledge and skills required to function in today's engineering office environment. Engineering office format, procedures, standards, ethics and application level of engineering office related software is introduced. Students explore the engineering design process and participate in various problem solving and conflict resolution techniques. Career paths available to the Mechanical Design graduate will also be explored. Students utilize Net Meeting, video conferencing and Internet shared data.

MECTEC 10606104 Engineering Technology Practices 3 Credits/Units

Focuses on the creation of complete sets of engineering detail and assembly drawings including the accompanying engineering documentation, bill of materials and the application of geometric dimensioning and tolerancing standards. Emphasis is placed on product design analysis, the engineering change process, product data management and an introduction to stress analysis and rapid prototyping. Other areas of study include: threaded fasteners, non-threaded fasteners, springs and gears. Prerequisite: 10-606-140.

MECTEC 10606112 Tool Design Technology 3 Credits/Units

The fundamentals of tool design are presented to acquaint the student with the language and methods used in designing jigs and fixtures. Through the research and selection of standard tooling components, working tool design drawings are completed. Also explored are common plastic part design and tooling considerations through actual design problems. Prerequisite: 10-606-104.

MECTEC 10606116 Machine Design 3 Credits/Units

The principles of statics and strength of materials are reviewed and applied to the design of machine elements in this course. Topic areas studied include calculations, labs, and software to revolving around properly selecting machine components for force-work-power, stress, repeated loading, fasteners, springs, belts, chains, gears, bearings, keys and couplings. In addition, machine design principles will be studied and applied through software applications (SolidWorks) and hands-on labs in the mechanical systems training lab (Lab Volt Lab).
Prerequisite: 10-606-170.

MECTEC 10606120 2-D CAD (Computer Aided Drafting) 1 Credits/Units

Introduces the basic capabilities of the current version of 2D CAD software as it applies to mechanical design. Emphasis is placed on basic commands and input required for their application in creating two-dimensional mechanical working drawings.

MECTEC 10606121 CAD for MEP Systems 1 Credits/Units

Design mechanical, electrical, and plumbing (MEP) system projects, select components, and documental commercial MEP systems with the use of computer-aided design software (CAD). Build off of the Introduction to CAD course by practicing what has been learned in CAD projects focused on the MEP industries.

MECTEC 10606122 Introduction to 3D Modeling with REVIT 2 Credits/Units

Design mechanical, electrical, and plumbing (MEP) system projects, select components, and document commercial MEP systems with the use of 3D modeling software (REVIT). Learn the basics in 3D design with the use of REVIT after which you will build off of the CAD for MEP Systems course by transferring over projects on the MEP industries into this 3D modeling program.

MECTEC 10606125 Plastics for Mechanical Design 3 Credits/Units

This course is an introduction to the main plastics processing industries, techniques, and commonly used polymers. Plastic processing principles will be studied and applied through learning activities designed for hands-on classroom manufacturing processing training centers. Common processes to be studied include injection molding, thermoforming, blow molding, and related manufacturing operations.

MECTEC 10606130 SolidWorks 1 1 Credits/Units

Introduces the students to the concepts and commands of parametric solid modeling. Students create sketches and add relationships to the sketch segments, extrude the sketches to create models, and add features such as fillets, cut extrude, chamfers, holes, draft, shell, lofts and sweeps. Emphasis is placed on the design intent of the parametric solid models.

MECTEC 10606131 SolidWorks 2 2 Credits/Units

This is the second course in the study of parametric solid modeling using SolidWorks as it applies to the mechanical design field. Students extract 2D documentation from the 3D models and add details to the drawings. Advanced software applications are explored including assembly modeling techniques, configurations, detail drawing generation, surfaces, multibody parts, additional work with sweeps and lofts, and preparation for the CSWA exam.

MECTEC 10606132 SolidWorks 3 2 Credits/Units

Students are introduced to advanced modeling and design techniques for part design in sheet metal, weldments, and mold design. An introduction to the PDM interface for product data management will also be explored through collaborative drawing applications.

MECTEC 10606140 Dimensioning Practices 1 Credits/Units

Mechanical Drafting dimensioning fundamentals are developed including conventional tolerancing practices using basic hole and shaft tolerancing methods. Standard dimensioning practices are applied on mechanical drawings in accordance with the current ASME Y14.5M standard.

MECTEC 10606141 Geometric Dimensioning & Tolerancing 1 Credits/Units

Students are introduced to the engineering practices of geometric dimensioning and tolerancing, including an introduction to the symbols and terms, datums, material condition and boundary condition, and the common tolerances used in accordance to the current ASME Y14.5 standard. Application on mechanical drawings will be used to document the GDT requirements for a given part, then inspected in the quality lab using a CMM.

MECTEC 10606150 Rapid Prototyping 2 Credits/Units
Students are introduced to rapid prototyping methods and the operation of various types of rapid prototyping equipment, available in the Mechanical Design Technology program's rapid prototyping center. Research and the use 3D printers including FDM, PolyJet, SLA, Composite printing technologies, and related material usage, will be explored through hands-on lab activities to develop a working prototype. Students will also be introduced to a reverse engineering scanner system and software, used for reverse engineering applications in the SolidWorks 3D modeling environment.

MECTEC 10606155 Statics And Mechanics 3 Credits/Units
Introduces students to the basics of statics. Learners study and analyze forces and loading conditions applied to structures and mechanical devices. Areas of study include resultant and equilibrant of forces, moments, nonconcurrent-coplanar forces (trusses), concurrent-noncoplanar forces and static friction. Related engineering analysis software will be utilized throughout the course. Prerequisite: 10-804-114. Corequisite: 10-804-116.

MECTEC 10606160 Fundamentals of Manufacturing/Engineering Materials 2 Credits/Units
An introduction to the engineering materials and their properties used in industry. Material testing methods and their relevance to design applications are studied through various lab activities. In addition, this course begins the examination of various contemporary manufacturing processes used in industry today.

MECTEC 10606161 Manufacturing Processes 2 Credits/Units
Introduces students to computer aided design and manufacturing concepts through an integrated material removal project. Upon completing the project, students will use various measurement and inspection equipment to verify part conformance to engineering specifications. Prerequisite: 10-606-130 and 10-606-160.

MECTEC 10606163 Engineering Technology Project Management 2 Credits/Units
An introduction to Project Management and the Product Development Process, as they relate to the Mechanical Design Technology field. In this course, students will prepare a team Design Project Plan (DPP) for a future design project to be developed in the 10606186 Engineering Technology Applications course. Prior to the completion of the DPP, students will learn about interpersonal and leadership skills in team environments, as well as elements of the design process and project management including scope, time, cost, and quality of the design project.Note: Engineering Technology Applications, 10606186, should be taken the following semester.

MECTEC 10606164 Quality Systems 2 Credits/Units
This course is an introduction to the foundational building blocks necessary for effective understanding and application of quality principles used today. The fundamentals of quality, measurement for quality, and statistics for quality will be explored as they relate to productivity, specifications, and inspections of processes. In addition, process capability and design of experiments is also explored. Prerequisite: Dimensioning/GDT, 10-606-140.

MECTEC 10606170 Strength Of Materials 3 Credits/Units
An analysis of the principles of strength of materials as they apply to various fasteners, welded joints, beams and shafts through practical design and analysis problems. Topics covered include simple stresses, mechanical properties of materials, center of gravity, moment of inertia, shear force and bending diagrams and beam design. Related engineering analysis software is utilized throughout the course. Prerequisite: 10-606-155.

MECTEC 10606186 Engineering Technology Applications 3 Credits/Units
A comprehensive application of the Mechanical Design Technology program, in which student design teams will ultimately complete a Design Portfolio through the implementation of the Design Project Plan, previously developed in the Engineering Tech. Project Management course. The DPP will be carried out through the MDT program Design Process model, and the final design project work for this course will be documented in a Design Project Notebook. Student design teams will make a formal team design project presentation at the conclusion of the semester, which may include the actual working product prototype.

MECTEC 10606188 Mechanical Design Technology Field Study Experience 1 Credits/Units
MDT students will be placed in a local engineering office environment, where technical skills learned throughout the MDT program will be observed and practiced in collaboration with the participating company. Students will document the time spent at the company, while being mentored by participating engineering personnel and MDT faculty. In addition, soft skills required to satisfactorily work on the job will be emphasized.

MECTEC 10606193 Career Development - Mechanical Design Program 1 Credits/Units
Acquaints students with the process and the development of a plan for securing employment in the mechanical design field. Includes letters of introduction, resume design, personal data sheets, portfolio design and job interview techniques. Presentations by industry professionals in the areas of human resources, management, design and job placement will overview the industry perspective and requirements for employment in the career of mechanical design. Prerequisite: third-semester standing.

Madison Area Technical College

MECTEC 10606202 Introduction to CAD-2D 2 Credits/Units

Learn to visualize, sketch and create 2D drawings in a wide variety of disciplines using AutoCad. The course will introduce the creation and revision drawings pertinent to the trades with examples in Welding, Facilities, Piping and Instrumentation (P & ID's), Sheet Metal, Equipment Manuals (technical documents, installation/repair manuals), Electrical, and Fluid Power Facilities and Mechanical Drawings.

MECTEC 10606204 Introduction to CAD-3D 2 Credits/Units

Introductory study of working with simple 3D sketches and partly, creation. Strong emphasis on working with existing assemblies, and understanding component relationships. Students will work with OEM component 3D models and manipulating them into assemblies. Students will gain an understanding of drawing sets, and bill of materials.

MECTEC 10606205 Print Reading for HVAC 1 Credits/Units

Focuses on the basic principles of interpreting and working with commercial structure blueprints and shop drawings. Through interpretation and sketching, students learn to visualize HVAC components and how they interact with other building components during the installation and operational aspects of the structure. Students study isometric and orthographic views on a drawing. The student will also interpret hand sketched shop drawings used during the installation process.

MEDADMIN 10160165 Medical Administrative Procedures 3 Credits/Units

Learn administrative skills and techniques for efficient and effective function within the electronic medical office environment. Through the use of an electronic practice management platform, practical application workflow activities include patient demographics, appointment scheduling, healthcare documentation and template use, patient billing and reimbursement, insurance claims and payments, patient statements, and financial and clinical reports. Other topics include telephone procedures, introduction to diagnostic and procedural coding, diversity in healthcare, effective business meetings, travel arrangements and itineraries, and qualities of a successful healthcare professional.

MEDADMIN 10160166 Clinical & Business Documentation Techniques 3 Credits/Units

Learn guidelines for accurate electronic health record documentation. Applying the Association for Healthcare Documentation Integrity standards, mastery of clinical documentation rules for capitalization; measurement and quantitation; abbreviations; grammar and punctuation; reference materials; plurals and possessives; business correspondence formats; and an exploration of specialty standards with an emphasis on quality clinical documentation.

MEDADMIN 10160177 Specialized Insurance Claims 3 Credits/Units

Identifies in-depth insurance knowledge following the healthcare revenue cycle. Explore healthcare law. Investigate private payers, Medicare, Medicaid, TRICARE, CHAMPVA, worker's compensation, and disability insurance. Knowledge of deductibles, coinsurance, copayments, exclusions, medical necessity, referrals, prior authorization, coordination of benefits, COBRA, Charity Care, collections, pre-existing periods, allowed amounts, malpractice, outpatient benefits, and lifetime maximums. Intermediate diagnostic, procedural, and HCPCS coding. Claims reimbursement methods, contractual allowances, fee schedules, and other rules to facilitate timely payment of claims.

MEDADMIN 10160178 Medical Language for the Business Professional 1 3 Credits/Units

This course is designed to give the beginning medical business student a working knowledge of basic anatomy, medical language, and pharmacology. Students explore general anatomy through body system study. Students explore medical language, including how medical terms are formed, and become familiar with the meaning of word roots, prefixes, and suffixes, as well as spell, define, and pronounce medical terms through understanding word components in a contextual format. Students will exhibit mastery in the use of medical dictionaries and resource materials and will demonstrate application of medical language through written documentation and communication skills. Fundamentals are discussed in relationship to health practices by body system and by the body as a whole, including pathology, diagnostic tools, therapeutic procedures, and medical imaging. A focus on medical specialty pharmacology is also incorporated into each unit of study.

MEDADMIN 10160179 Medical Language for the Business Professional 2 3 Credits/Units

This course builds upon Medical Language for the Business Professional 1 and is designed to advance the medical business student's working medical language. Students explore general anatomy through body system study. Students explore medical language, including how medical terms are formed, and become familiar with the meaning of word roots, prefixes, and suffixes, as well as spell, define, and pronounce medical terms through understanding word components in a contextual format. Students will exhibit mastery in the use of medical dictionaries and resource materials and will demonstrate application of medical language through written documentation and communication skills. Fundamentals are discussed as they relate to evaluation of health practices by body system and by the body as a whole and includes the study of pathology, diagnostic tools, therapeutic procedures, and medical imaging. A focus on medical specialty pharmacology is also incorporated into each unit of study.

MEDADMIN 10160192 Applied Clinical Documentation 3 Credits/Units

An introduction to practical application of clinical documentation practices. Develop a working knowledge of specialized medical report formats, speech recognition editing skills, and beginning medical transcription technical skills. Build upon medical and pharmacology knowledge, clinical documentation techniques, proofreading, editing, and research skills, with a focus on efficient and accurate clinical documentation.

Madison Area Technical College

MEDADMIN 10160199 **Medical Administrative Specialist Practicum** **1 Credits/Units**

This simulated practicum is designed to take students' skills to the next level. As the program's capstone course, it should be completed in the last (graduating) semester. Students who have medical administrative work experience may consider completing the experiential credit portfolio.

MEDREC 10530159 **Healthcare Revenue Management** **3 Credits/Units**

Prepares learners to compare and contrast healthcare payers and evaluate the reimbursement cycle and compliance with regulations. Learners assign payment classifications with entry level proficiency using computerized encoding and grouping software.

MEDREC 10530162 **Foundations of HIM** **3 Credits/Units**

Introduces learners to the healthcare delivery system, and the external forces that influence healthcare delivery. Sets an understanding for the expectations and standards related to professional ethics, confidentiality and security of health information. Differentiates the use and structure of healthcare data elements, data standards, and the relationships between them. Prepares learners to collect and maintain health data to ensure a complete and accurate health record.

MEDREC 10530165 **Intermediate Coding** **3 Credits/Units**

Prepares students to assign ICD and CPT/HCPCS codes supported by medical documentation and official coding guidance to support appropriate reimbursement. Students will participate in CDI activities, including preparation of appropriate physician queries in accordance with compliance guidelines.

MEDREC 10530182 **Human Disease for Health Professions** **3 Credits/Units**

Prepares learners to interpret clinical documentation that they will encounter in a variety of healthcare settings. Emphasis is placed on understanding the common disorders and diseases of each body system to include the etiology (cause), signs and symptoms, diagnostic tests and results, and medical treatments and surgical procedures.

MEDREC 10530184 **CPT Coding** **3 Credits/Units**

Prepares students to assign CPT codes, supported by medical documentation with entry-level proficiency. Students apply CPT instructional notations, conventions, rules and official coding guidelines when assigning CPT codes to case studies and actual medical record documentation.

MEDREC 10530187 **Advanced CPT Coding** **3 Credits/Units**

Requires the student to apply and expand the knowledge gained from the basic course, CPT Coding, to more difficult cases. The student will develop critical-thinking skills by using current references to research coding questions and issues. Computerized encoding software is utilized.

MEDREC 10530188 **Certification & Professional Development** **2 Credits/Units**

This course prepares students for coding certification and includes mock coding certification exams. Students participate in professional development activities and discuss career progression opportunities.

MEDREC 10530189 **Management of Coding Services** **1 Credits/Units**

This course focuses on common coding management issues including coding quality, coding productivity, and workflow processes. Recruitment, training, and retention of coding staff are included. Effective communication in a diverse workplace is addressed.

MEDREC 10530197 **ICD Diagnosis Coding** **3 Credits/Units**

Prepares students to assign ICD diagnosis codes supported by medical documentation with entry-level proficiency. Students apply instructional notations, conventions, rules, and official coding guidelines when assigned ICD procedures codes to case studies and actual medical record documentation.

MEDREC 10530199 **ICD Procedure Coding** **2 Credits/Units**

Prepares students to assign ICD procedure codes supported by medical documentation with entry-level proficiency. Students apply instructional notations, conventions, rules and official coding guidelines when assigned ICD procedure codes to case studies and actual medical record documentation.

MILLWRGT 32423714 **Rigging for MMMP Trades** **1 Credits/Units**

Apprentices will compare types of rigging equipment and their uses; determine safe loads, rig and crib loads, and move a load with cranes and hoists in this course. This course was formerly the C-5 module for related instruction in the MMMP apprenticeship.

MKTG 10104102 **Marketing Principles** **3 Credits/Units**

Explore the dynamic and engaging world of marketing where creativity meets strategy. This course dives into the four key principles: Product, Price, Place, and Promotion. Students will uncover how marketing shapes business through topics like target markets, consumer behavior, product development, pricing strategies, distribution channels, and innovative promotions.

Madison Area Technical College

MKTG 10104103 **Marketing Research & Analytics** **3 Credits/Units**

In this course students learn to gather, analyze, and apply marketing data for better decisions. Emphasizing best practices, it covers marking analytics, emerging techniques, data interpretation, and developing innovative strategies. Prepares students for real-world marketing with hands-on projects and insights into effective decision-making.

MKTG 10104104 **Selling Principles** **3 Credits/Units**

Dive into personal selling with this dynamic course. Analyze the relationship between selling and marketing, develop ethical standards, and evaluate buyer motivation and resistance. Learn to build trust through product knowledge and relationship strategies, understand the selling process, and create effective sales presentations for goods, services, or ideas.

MKTG 10104112 **Marketing Design Strategies** **3 Credits/Units**

This course provides participants with opportunities to explore proven theories and practices of design principles and marketing communication strategies. Participants are challenged to create powerful marketing print and digital publications by utilizing current desktop publishing and image editing technologies.

MKTG 10104113 **Leadership Ethics in the Digital Age** **3 Credits/Units**

This course empowers current and aspiring leaders to influence and inspire in today's fast-paced digital world. Students explore self-awareness, effective leadership strategies, and ethical considerations, equipping them with the tools to navigate and lead with confidence and integrity. They also assess how to use their unique talents in future leadership roles. Perfect for anyone looking to enhance their leadership skills.

MKTG 10104114 **Social Media Marketing** **3 Credits/Units**

This course provides an overview of the impact of social media technologies on marketing strategies. Current social media tools/platforms and their business applications, strategy insights, creative, and ethics will be covered along with the development of a social media marketing plan.

MKTG 10104115 **Capstone Campaign** **3 Credits/Units**

In this hands-on course, students will leverage modern advertising mediums to research, design, and execute a multi-media campaign from the ground up. Prior knowledge of traditional and digital media, along with proficiency in design tools is required. As a project-based class, extensive work outside of class hours is expected to bring campaigns to life.

MKTG 10104125 **Advertising Principles** **3 Credits/Units**

This course dives into the essentials of traditional and digital advertising, exploring their strengths and weaknesses. Students learn key terminology, how to measure and monitor campaigns, create engaging assets (images, audio, video), and choose the best mediums for specific goals. A strong emphasis on creating ads is a key outcome.

MKTG 10104126 **Introduction to Public Relations** **3 Credits/Units**

Public Relations is a strategic communication process that builds relationships between organizations and their publics. This course will focus on basic PR communication plans that marketers can implement to build a favorable public image. Emphasis is given to press releases (traditional and social), press kits, online reputation management and crisis communication, digital press rooms and SEO, media pitches, and social responsibility and community relations.

MKTG 10104162 **Advanced Social Marketing Technologies** **3 Credits/Units**

This course will build on social media foundations learned in Social Media Marketing as students focus on how social media intersects with mobile and digital channels. We will investigate advanced social media strategies, SMS/MMS, mobile apps, geo-targeting, mobile advertising and new and emerging social and mobile platforms.

MKTG 10104164 **Marketing Digital Design** **3 Credits/Units**

Through extensive hands-on experience website builder sites are explored. The conceptual and practical aspects of website design are emphasized. Participants are introduced to principles and practices of Web Usability and Accessibility requirements. Participants are actively engaged in creating a website.

MKTG 10104165 **Marketing Internship** **3 Credits/Units**

Get hands-on marketing experience through a supervised internship. Faculty assist in finding internships, but students take the lead to secure their own placements. Students, employers, and instructors collaboratively plan objectives and evaluate performance. Available to Marketing students with 2 semesters completed and a GPA of 2.0+. Gain real-world insights and professional connections.

MKTG 10104169 **Digital Marketing** **3 Credits/Units**

This course develops essential digital marketing skills, focusing on off-site and on-site SEO, paid search marketing, display advertising, simple analytics, Google Reports, and email marketing strategy including content creation. Designed to prepare students for success in the digital marketing workplace.

MKTG 10104180 Global Marketing 3 Credits/Units

Most businesses today have some international exposure in the form of global customers, suppliers, or other stakeholders. The global marketplace is a dynamic, complex, and diverse environment. Businesses require employees who have solid global competence to navigate this interconnected landscape. This course explores how marketing strategies, along with personal actions, are managed and adapted for success in different cultural, economic, geographic and political environments around the world.

MKTG 10104187 Global Studies Seminar 3 Credits/Units

This course provides a unique learning opportunity while travelling abroad to enhance the student's understanding of the global marketplace. While abroad, students will examine current trends and business practices related to topics like management, marketing, hospitality, and global strategies. Students will develop a lifelong global mindset and will enhance their ability to communicate, work on international teams, and think creatively.

MKTG 10104188 Marketing Portfolio 1 Credits/Units

Students will create e-portfolios to showcase their marketing projects in this course. They will organize their projects in a website and add a resume, professional references, and cover letter. Students will also learn to create LinkedIn profiles and register on job search sites. Must be taken in the final semester of the Marketing program or with instructor consent.

MKTG 10104802 Honors - Marketing 3 Credits/Units

Qualified Honors student pursues special concentration of study with faculty member. Requires an Honors Project Contract and permission from Honors faculty. May be taken more than once. Eligibility: 1) min. 12 credits at Madison College, 3.5+ GPA; or 2) High School 3.5+ GPA and letter of recommendation. See website at https://madisoncollege.edu/honors.

MTLFAB 10457100 Metal Repair Techniques 2 Credits/Units

This course covers safety, layout and measurement, grinding, drill press, lathe operation, filing, threading, properties of metals, oxy-acetylene welding, brazing and cutting, and SMAW, GMAW and FCAW.

MTLFAB 31457301 Fabrication 1 2 Credits/Units

In Fabrication 1 students will be introduced to the fundamentals of metal cutting and forming. Students will create assemblies from industrial drawings conforming to industry standards. Emphasis will be placed on the safety, basic layout techniques, bending calculations, and operation of manual and mechanical cutting/forming equipment.

MTLFAB 31457302 Fabrication 2 2 Credits/Units

In Fabrication 2 students will translate the competencies established in Fabrication 1 to programmable forming equipment. Students will create assemblies from industrial drawings conforming to industry standards. Emphasis will be placed on safe operation procedures, the selection of tooling, and calculations required to properly operate programmable forming equipment.

MTLFAB 31457303 Fabrication 3 2 Credits/Units

Fabrication 3 builds upon the competencies established in the prior Fabrication courses. Students will create assemblies from industrial drawings conforming to industry standards. Emphasis will expand upon operational safety, tooling types and selection, multiple types and combinations of bending, as well as assembly techniques.

MTLFAB 31457304 Fabrication 4 2 Credits/Units

The Fabrication Capstone course utilizes all the program competencies learned and combines them into final projects. Students will choose from established projects and create material lists, operational procedures, fabricate components, assemble, join, and finish. All assembles must be inspected per industry standards.

MTLFAB 31457305 CNC Operation 2 Credits/Units

The CNC Operation course will develop student's ability to operate Computerized Numerical Control cutting equipment. Students will be trained in safety, program selection, operational procedures, editing and the basic maintenance of the equipment. Students will be introduced to programing methods applicable to each OEM manufacturer.

MTLFAB 31457306 CNC Programming 2 Credits/Units

The CNC programing class students will develop ability to generate component programs utilizing computer software. Students will generate shape geometry, create parts, develop nests and cut parts.

MTLFAB 31457307 Jig and Fixture Development 2 Credits/Units

Students will develop the concepts of design and building simple to intermediate jigs and assembly fixtures. Students will use computer software and metal fabrication equipment to build jig and fixtures for projects used in the class.

MTLFAB 31457308 Metal Fabrication Occupational Development 1 Credits/Units

Applications of metal fabrication terminology, use of forms, contracting, professional ethics and employment relations are studied. Specific topics germane to the metal fabrication field in decision-making, responsibility and preparation for the metal fabrication career are covered.

Madison Area Technical College

MTLFAB 31457309 **Math for Metal Fabrication** **1 Credits/Units**

Metal Fabrication Math is a review of basic mathematics that consists of an introduction to using a scientific calculator, order of operations, fractions, decimals, use of percentage, units of measurement including the metric system, the reading of analog instruments for length measurement, and practical plane geometry.

MUSIC 20805202 **Choir 1** **1 Credits/Units**

Choir 1 allows the opportunity to apply existing knowledge of vocal performance technique within a full choir. Addresses musical performance skills through weekly rehearsal of choral music composed in the 18th through 21st centuries. Two public performances occur outside regular rehearsal time. Offered fall semester and open to all vocalists. No audition necessary.

MUSIC 20805203 **Choir 2** **1 Credits/Units**

Choir 2 is open to all vocalists interested in singing in a full choir. The course has an emphasis on modern music from diverse cultures and various musical genres. Two public performances occur outside regular rehearsal time. Offered spring semester and open to all vocalists. No audition necessary.

MUSIC 20805205 **Class Voice** **1 Credits/Units**

Class Voice is a fundamental course in singing which includes principles of voice production, anatomy of the larynx, breathing for singing, tone placement, resonance, articulation, and song interpretation. Open to all college students.

MUSIC 20805207 **World Music** **3 Credits/Units**

This course is designed to give students a broad overview of various musics from around the world. Over the course of the semester, students will learn how various societies view, perform, use, and disseminate music and gain respect for these musics through deeper understanding of their materials, processes, and values within their respective cultures. Our goal is to develop acute listening skills in order to identify the geographic origin of musical examples and associate appropriate cultural values with them. As a class, students will explore music from Sub-Saharan Africa, Indigenous American cultures, Latin America, South Asia, East Asia, Southeast Asia, and others. In addition, students will choose an additional music-culture to research individually.

MUSIC 20805211 **Orchestra 1** **1 Credits/Units**

Students will apply existing knowledge of performance technique on an individual instrument within a full orchestra. This course addresses musical performance skills through weekly rehearsals of orchestral music composed in the 18th through 20th centuries. Two public performances will occur outside the regular rehearsal time each semester. Open to all string players. Open to winds, brass, and percussion by audition.

MUSIC 20805212 **Orchestra 2** **1 Credits/Units**

Students will apply existing knowledge of performance technique on an individual instrument within a full orchestra. This course addresses musical performance skills through weekly rehearsals of orchestral music composed in the 18th, 19th, and 20th centuries. Two public performances will occur outside the regular rehearsal time each semester. Open to all string players. Open to winds, brass, and percussion by audition.

MUSIC 20805216 **Concert Band 1** **1 Credits/Units**

Students will apply existing knowledge of performance technique on an individual instrument within a full concert band. Students will develop ensemble

performance skills for woodwind, brass, and percussion instruments. Musical repertoire ranges from original compositions for wind band to transcriptions and arrangements of popular music spanning several centuries. Two to three public performances will take place outside the regular rehearsal time each semester. Open to all winds, brass, and percussion following a seating placement audition with the conductor.

MUSIC 20805217 **Concert Band 2** **1 Credits/Units**

Students will apply existing knowledge of performance technique on an individual instrument within a full concert band. Students will develop ensemble advanced performance skills for woodwind, brass, and percussion instruments. Advanced-level musical repertoire ranges from original compositions for wind band to transcriptions and arrangements of popular music from the 20th and 21st centuries. Two to three public performances will take place outside the regular rehearsal time each semester. Open to all winds, brass, and percussion following a seating placement audition with the conductor.

MUSIC 20805219 **Jazz Ensemble 1** **1 Credits/Units**

Students will apply existing knowledge of performance technique on an individual instrument within a standard jazz ensemble. Students in this course will rehearse and perform music in a variety of jazz styles from the 20th and 21st centuries while developing ensemble performance and solo improvisational skills. Several performances occur outside the regular rehearsal time by arrangement with the director. Open to jazz instrumentalists with permission of the director.

MUSIC 20805220 Jazz Ensemble 2 1 Credits/Units

Students will apply existing knowledge of performance technique on an individual instrument within a standard jazz ensemble. Students in this course will rehearse and perform music in a variety of jazz styles from the 20th and 21st centuries while developing ensemble performance and solo improvisational skills. Several performances occur outside the regular rehearsal time by arrangement with the director. Open to jazz instrumentalists with permission of the director.

MUSIC 20805221 Class Piano 1 1 Credits/Units

Students will be introduced to piano technique and musical notation for piano. Students will then apply these skills to elementary-level performance of music from a variety of genres and styles. Performance of fully notated music, improvised harmonization of melodies in major keys, and melodic improvisation based on written harmonic progressions will be explored at a beginning level.

MUSIC 20805222 Class Piano 2 1 Credits/Units

Students will build on foundations of piano technique and note-reading skills and apply them to intermediate-level performance of music from a variety of genres and styles. Performance of fully notated music, improvised harmonization of melodies in minor keys, and melodic improvisation in both major and minor keys will be explored at an intermediate level.

MUSIC 20805227 Music Appreciation 3 Credits/Units

Through an examination of select contemporary musical styles and a survey of the development of Western art music, students will learn how to actively listen to music and identify salient traits. Students will explore musical meaning, musical reception, and musical aesthetics as they apply to different cultures and different time periods. Attendance at two live musical performances outside the classroom is required.

MUSIC 20805229 Blues to Hip-Hop: Black American Music 3 Credits/Units

Examine the centrality of black popular music in American cultural history from 1945 to the present. Consider the central themes of black music and how they reflect the black experience in postwar America, as well as the ways that the music, and those themes, evolve over time.

MUSIC 20805260 Music Theory Fundamentals 3 Credits/Units

Music Theory Fundamentals serves as an introduction to Western musical notation and aural skills. Through a systematic study of musical vocabulary, rhythm, melody, and harmony, students will acquire the skills necessary in order to visually recognize, aurally identify, transcribe, analyze and compose music according to standards of Western notation. This course may also serve as preparation for Theory 1 (20-805-261) and Aural Skills 1 (20-805-267). Open to all students.

MUSIC 20805278 Hist Pop/Rock Music 3 Credits/Units

History of Popular & Rock Music explores the history of popular and rock music in the United States from 1954 to the present, focusing on significant music genres, important artists/bands, the role of identity in music, and social history. The course intends to promote creative and critical thinking by emphasizing music literature, form and style analysis, and social and cultural criticism. Through our discourse, we will strive to connect musical and social histories by situating popular works/performances within the complex and volatile landscape of Western cultures throughout the last century to present day.

MUSIC 20805279 World Drumming Ensemble 1 1 Credits/Units

High-energy ensemble participation focuses on world drumming techniques and styles, ensemble listening skills, and techniques for creative improvisation. Warm-up activities, dexterity exercises, traditional music, and contemporary compositions lead a public performance at the end of the

semester. Previous drumming experience and the ability to read music are not required.

MUSIC 20805280 World Drumming Ensemble 2 1 Credits/Units

The World Drumming Ensemble is a high-energy ensemble that focuses on world drumming techniques and styles, ensemble listening skills, and techniques for creative improvisation. Warm-up activities, dexterity exercises, traditional music, and contemporary compositions lead a public performance at the end of the semester.

MUSIC 20805281 World Drumming Ensemble 3 1 Credits/Units

The World Drumming Ensemble is a high-energy ensemble that focuses on world drumming techniques and styles, ensemble listening skills, and techniques for creative improvisation. Warm-up activities, dexterity exercises, traditional music, and contemporary compositions lead a public performance at the end of the semester.

MUSIC 20805282 World Drumming Ensemble 4 1 Credits/Units

World Drumming Ensemble is a high-energy ensemble that focuses on world drumming techniques and styles, ensemble listening skills, and techniques for creative improvisation. Warm-up activities, dexterity exercises, traditional music, and contemporary compositions lead a public performance at the end of the semester.

NATSCI 20806260 Professional Health Careers Seminar: Planning Your Future 1 Credits/Units

The course offers students interested in professional health careers an orientation experience. Assignments and activities will be focused on academic and career planning and exploration. Students will become familiar with different programs and career paths at Madison College and beyond through classroom visits from faculty and health professionals.

NATSCI 20806264 **STEM Seminar** **1 Credits/Units**
Explore the career possibilities in the science, technology, engineering and math (STEM) fields. Align your individual strengths and interests to a future job and create a plan to meet educational and professional goals. Locate resources and college tools to empower your decision-making.

NATSCI 20806297 **Independent Study - Science (1 cr)** **1 Credits/Units**
Students will work independently on a science project under the supervision of an instructor. Instructor permission is required.

NATSCI 20806298 **Independent Study - Science (2 cr)** **2 Credits/Units**
Students will work independently on a science project under the supervision of an instructor. Instructor permission is required.

NATSCI 20806299 **Independent Study - Science (3 cr)** **3 Credits/Units**
Students will work independently on a science project under the supervision of an instructor. Instructor permission is required.

NATSCI 20806391 **Internship 1 Science/Engr (1cr)** **1 Credits/Units**
Students will earn credit for exploring career interests and applying their skills and knowledge in the workplace. Students will gain workplace skills and career insights and build professional networks. Minimum of 32 hours of work required. Students must work with Career & Employment Services to secure an internship before enrolling.

NATSCI 20806392 **Internship 1 Science/Engr (2cr)** **2 Credits/Units**
Students will earn credit for exploring career interests and applying their skills and knowledge in the workplace. Students will gain workplace skills and career insights and build professional networks. Minimum of 96 hours of work required. Students must work with Career & Employment Services to secure an internship before enrolling.

NATSCI 20806393 **Internship 1 Science/Engr (3cr)** **3 Credits/Units**
Students will earn credit for exploring career interests and applying their skills and knowledge in the workplace. Students will gain workplace skills and career insights and build professional networks. Minimum of 160 hours of work required. Students must work with Career & Employment Services to secure an internship before enrolling.

NATSCI 20806394 **Internship 2 Science/Engr (1cr)** **1 Credits/Units**
Students will earn credit for exploring career interests and applying their skills and knowledge in the workplace. Students will gain workplace skills and career insights and build professional networks. Minimum of 32 hours of work required. Students must work with Career & Employment Services to secure an internship before enrolling.

NATSCI 20806395 **Internship 2 Science/Engr (2cr)** **2 Credits/Units**
Students will earn credit for exploring career interests and applying their skills and knowledge in the workplace. Students will gain workplace skills and career insights and build professional networks. Minimum of 96 hours of work required. Students must work with Career & Employment Services to secure an internship before enrolling.

NATSCI 20806396 **Internship 2 Science/Engr (3cr)** **3 Credits/Units**
Students will earn credit for exploring career interests and applying their skills and knowledge in the workplace. Students will gain workplace skills and career insights and build professional networks. Minimum of 160 hours of work required. Students must work with Career & Employment Services to secure an internship before enrolling.

NATSCI 20806807 **Honors-Renewable Energy (2cr)** **2 Credits/Units**
Qualified Honors student pursues special concentration of study with faculty member. Requires an Honors Project Contract and permission from Honors faculty. May be taken more than once. Eligibility: 1) min. 12 credits at Madison College, 3.5+ GPA; or 2) High School 3.5+ GPA and letter of recommendation. See website at https://madisoncollege.edu/honors.

NATSCI 20806907 **Honors-Renewable Energy (3cr)** **3 Credits/Units**
Qualified Honors student pursues special concentration of study with faculty member. Requires an Honors Project Contract and permission from Honors faculty. May be taken more than once. Eligibility: 1) min. 12 credits at Madison College, 3.5+ GPA; or 2) High School 3.5+ GPA and letter of recommendation. See website at https://madisoncollege.edu/honors.

NRSAD 10543127 **Paramedic to AD Theory 1** **3 Credits/Units**
This course will focus on basic nursing concepts that the beginning nurse will need to provide care to diverse populations. The nursing process will be introduced as a framework for organizing care of patients with alterations in cognition, elimination, comfort, grief/loss, mobility, skin integrity, and related principles of pharmacology.

Madison Area Technical College

NRSAD 10543128 **Paramedic to AD Theory 2** **3 Credits/Units**

This course will cover topics related to health promotion in the context of the family. Nursing care of the developing family topics including reproductive, pregnancy, labor and delivery, postpartum, and the newborn child will be covered. Patterns of adaptive and maladaptive behaviors, family dynamics, and grief and loss will be addressed utilizing mental health principles. An emphasis is placed on teaching and supporting healthy lifestyle changes. Nutrition, exercise/stress management, and risk reduction practices are addressed. Perioperative, malignancy, and chronic illness concepts are reviewed with related pharmacology concepts.

NRSAD 10543129 **Paramedic to AD Skills** **2 Credits/Units**

This course focuses on development of basic skills, clinical skills, and physical assessment across the lifespan. Content includes basic supportive and hygienic cares, mathematic calculations and conversions related to clinical skills, aseptic technique, wound care, tracheostomy care and suctioning, the management of enteral tubes, medication administration, enemas, ostomy care, and physical assessment skills using a body systems approach.

NRSAD 10543130 **Paramedic to RN Clinical** **2 Credits/Units**

This clinical course emphasizes basic nursing skills and application of the nursing process to clients and families across the lifespan. Emphasis is placed on assessment, relationships, communication, data collection, documentation, and medication administration.

NRSAD 10543164 **Orientation Associate Degree Nursing** **3 Credits/Units**

Introduction to the Associate Degree Nursing Program for licensed practical nurses. Prerequisite: Admission to the ADN program and permission of the program director.

NRSAD 10543181 **Military Medic RN Fundamentals and Pharmacology** **2 Credits/Units**

This course focuses on the integration of basic nursing fundamentals and pharmacology nursing concepts to provide evidenced-based care to diverse patient populations across the lifespan.

NRSAD 10543182 **Military Medic RN Skills Theory** **2 Credits/Units**

The course provides students with the opportunity to learn nursing theory behind skills commonly delegated to and within the scope of practice of the Associated Degree Nurse. The course will include the concepts of data collection and reporting patient responses relative to designated skills; skills include but are not limited to: utilization of the nursing process in collaboration with other health care team members and patient/families to address health care needs of individuals/ families across the lifespan; communication both verbal and written; the use of information technology; drug calculation and administration of medications within the ADN scope of practice.

NRSAD 10543184 **Military Medic RN Transition to Professional Nursing** **1 Credits/Units**

This course is designed to facilitate the transition of military health care veterans into the professional nurse role. Topics include: Introduction to the healthcare delivery system, nursing roles within the healthcare delivery system;
communication and collaboration with other members of the health care team. In addition to the exploration of the nursing process, documentation, safety, legal, ethical issues and information technology. The patient-needs framework of the curriculum, and nursing process will be explored.

NRSAD 10543185 **Military Medic RN Health Alterations** **3 Credits/Units**

This course elaborates upon the basic concepts of health and illness as presented in Nursing Fundamentals. It applies theories of nursing in the care of patients through the lifespan, utilizing problem solving and critical thinking. This course will provide an opportunity to study conditions affecting different body systems and apply evidence-based nursing interventions. It will also introduce concepts of leadership and management.

NRSAD 10543186 **Military Medic RN Health Promotions** **2 Credits/Units**

This course focuses on topics related to health promotion for individuals and families throughout the lifespan. We will cover nursing care of the developing family, which includes reproductive issues, pregnancy, labor and delivery, postpartum, the newborn, and the child. An emphasis is placed on teaching and supporting healthy lifestyles choices for individuals of all ages. Nutrition, exercise, stress management, empowerment, and risk reduction practices are highlighted. Study of the family will cover dynamics, functions, discipline styles, and stages of development.

NRSAD 10543188 **Military Medic RN Clinical Practicum** **2 Credits/Units**

This clinical experience applies nursing concepts and therapeutic interventions to clients across the lifespan. It also provides an introduction to concepts of teaching and learning. Extending care to include the family is emphasized.
*Includes skill assessments, and NA skills not met by military training.

NURSNA 30543300 **Nursing Assistant** **3 Credits/Units**

This 3-credit theory, laboratory, and clinical course prepares students for employment as nursing assistants. Students learn communication skills, basic nursing skills, personal care skills, clients' rights and care of clients with dementias. A supervised clinical experience with direct client care is a major component of the course. Upon completion, the student is eligible to take the certification for the Wisconsin Nurse Aide Registry.

Madison Area Technical College

NURSPN 31543301 **Nursing Fundamentals - Practical Nursing Program** **2 Credits/Units**

This course focuses on basic nursing concepts to provide evidenced-based care to diverse patient populations across the lifespan. Current and historical issues impacting nursing will be explored within the scope of nursing practice. The nursing process will be introduced as a framework for organizing the care of patients.

NURSPN 31543302 **Nursing Skills - Practical Nursing Program** **3 Credits/Units**

This course focuses on development of evidence-based clinical skills and physical assessment across the lifespan. Content includes mathematical calculations and conversions related to clinical skills. In addition the course includes techniques related to obtaining a health history and basic physical assessment skills using a body systems approach.

NURSPN 31543303 **Nursing Pharmacology - Practical Nursing Program** **2 Credits/Units**

This course introduces the principles of pharmacology, including drug classifications and their effects on the body. Emphasis is on the use of the components of the nursing process when administering medications.

NURSPN 31543304 **Nursing: Intro to Clinical Practice - Practical Nursing Program** **2 Credits/Units**

This introductory clinical course emphasizes basic nursing skills and application of the nursing process in meeting the needs of diverse clients across the lifespan. Emphasis is placed on performing basic nursing skills, the formation of nurse-client relationships, communication, data collection, documentation, and medication administration.

NURSPN 31543305 **Nursing Health Alterations - Practical Nursing Program** **3 Credits/Units**

This course elaborates upon the basic concepts of health and illness as presented in Nursing Fundamentals. It applies theories of nursing in the care of patients through the lifespan, utilizing problem solving and critical thinking. This course will provide an opportunity to study conditions affecting different body systems and apply evidence-based nursing interventions. It will also introduce concepts of leadership and management.

NURSPN 31543306 **Nursing Health Promotion - Practical Nursing Program** **3 Credits/Units**

This course focuses on topics related to health promotion for individuals and families throughout the lifespan. Topics include reproductive issues, pregnancy, labor and delivery, post-partum, the newborn, and the child, adaptive and maladaptive behaviors applying mental health principles. An emphasis is placed on teaching and supporting healthy lifestyles choices for individuals of all ages. Nutrition, exercise, stress management, empowerment, and risk reduction practices are highlighted. Study of the family will cover dynamics, functions, discipline styles, and stages of development.

NURSPN 31543307 **Nursing: Clinical Care Across the Lifespan - Practical Nursing Program** **2 Credits/Units**

This clinical experience applies nursing concepts and therapeutic interventions to patients across the lifespan. It also provides an introduction to concepts of teaching and learning. Extending care to include the family is emphasized.

NURSPN 31543308 **Nursing: Intro to Clinical Care Management - Practical Nursing Program** **2 Credits/Units**

This clinical experience applies nursing concepts and therapeutic nursing interventions to groups of patients across the lifespan. It also provides an introduction to leadership, management, and team building.

NURSPN 31543356 **Growth and Development** **2 Credits/Units**

Studies growth and development from conception through the older adult, based on Erickson's conceptualization of the developmental process through the entire life cycle. Implications for nursing practice in caring for middle and older age individuals in a variety of settings are explored. Prerequisites: one year each of high school math and science with a grade of C or better in each course, each semester.

NURSRN 10543101 **Nursing Fundamentals** **2 Credits/Units**

This course focuses on basic nursing concepts to provide evidenced-based care to diverse patient populations across the lifespan. Current and historical issues impacting nursing will be explored within the scope of nursing practice. The nursing process will be introduced as a framework for organizing the care of patients.

NURSRN 10543102 **Nursing Skills** **3 Credits/Units**

This course focuses on development of evidence-based clinical skills and physical assessment across the lifespan. Content includes mathematical calculations and conversions related to clinical skills. In addition the course includes techniques related to obtaining a health history and basic physical assessment skills using a body systems approach.

NURSRN 10543103 **Nursing Pharmacology** **2 Credits/Units**

This course introduces the principles of pharmacology, including drug classifications and their effects on the body. Emphasis is on the use of the components of the nursing process when administering medications.

NURSRN 10543104 **Nsg: Intro Clinical Practice** **2 Credits/Units**

This introductory clinical course emphasizes basic nursing skills and application of the nursing process in meeting the needs of diverse clients across the lifespan. Emphasis is placed on performing basic nursing skills, the formation of nurse-client relationships, communication, data collection, documentation, and medication administration.

NURSRN 10543105 Nursing Health Alterations 3 Credits/Units
This course elaborates upon the basic concepts of health and illness as presented in Nursing Fundamentals. It applies theories of nursing in the care of patients through the lifespan, utilizing problem solving and critical thinking. This course will provide an opportunity to study conditions affecting different body systems and apply evidence-based nursing interventions. It will also introduce concepts of leadership and management.

NURSRN 10543106 Nursing Health Promotion 3 Credits/Units
This course focuses on topics related to health promotion for individuals and families throughout the lifespan. Topics include reproductive issues, pregnancy, labor and delivery, post-partum, the newborn, and the child, adaptive and maladaptive behaviors applying mental health principles. An emphasis is placed on teaching and supporting healthy lifestyles choices for individuals of all ages. Nutrition, exercise, stress management, empowerment, and risk reduction practices are highlighted. Study of the family will cover dynamics, functions, discipline styles, and stages of development.

NURSRN 10543107 Nursing: Clinical Care Across Lifespan 2 Credits/Units
This clinical experience applies nursing concepts and therapeutic interventions to patients across the lifespan. It also provides an introduction to concepts of teaching and learning. Extending care to include the family is emphasized.

NURSRN 10543108 Nursing: Introduction to Clinical Care Management 2 Credits/Units
This clinical experience applies nursing concepts and therapeutic nursing interventions to groups of patients across the lifespan. It also provides an introduction to leadership, management, and team building.

NURSRN 10543109 Nursing: Complex Health Alterations 1 3 Credits/Units
Complex Health Alterations I prepares the learner to provide and evaluate care for patients across the lifespan with alterations in cardiovascular, respiratory, endocrine, and hematologic systems as well as patients with fluid/electrolyte and acid-base imbalance, and alterations in comfort.

NURSRN 10543110 Nursing: Mental Health Community Concepts 2 Credits/Units
This course will cover topics related to the delivery of community and mental health care. Specific health needs of individuals, families, and groups will be addressed across the lifespan. Attention will be given to diverse and at-risk populations. Mental health concepts will concentrate on adaptive/maladaptive behaviors and specific mental health disorders. Community resources will be examined in relation to specific types of support offered to racial, ethnic, economically diverse individuals and groups.

NURSRN 10543111 Nursing: Intermediate Clinical Practice 3 Credits/Units
This intermediate level clinical course develops the RN role when working with clients with complex health care needs. A focus of the course is developing skills needed for managing multiple clients across the lifespan and priorities. Using the nursing process, students will gain experience in adapting nursing practice to meet the needs of clients with diverse needs and backgrounds.

NURSRN 10543112 Nursing Advanced Skills 1 Credits/Units
This course focuses on the development of advanced clinical skills across the lifespan. Content includes advanced intravenous skills, blood product administration, chest tube systems, basic electrocardiogram interpretation and nasogastric/feeding tube insertion.

NURSRN 10543113 Nursing: Complex Health Alterations 2 3 Credits/Units
Complex Health Alterations II prepares the learner to provide and evaluate care for patients across the lifespan with alterations in the immune, neuro-sensory, musculoskeletal, gastrointestinal, hepatobiliary, renal/urinary, reproductive systems and shock, burns and trauma. The learner will also focus on management of care for patients with high-risk perinatal conditions and high-risk newborns.

NURSRN 10543114 Nursing: Management and Professional Concepts 2 Credits/Units
This course covers nursing management and professional issues related to the role of the registered nurse. Emphasis is placed on preparing for practice as a registered nurse.

NURSRN 10543115 Nursing: Advanced Clinical Practice 3 Credits/Units
This advanced clinical course requires the student to integrate concepts from all previous courses in the management of groups of clients facing complex health alterations. Students will have the opportuinity to further develop critical thinking skills using the nursing process in making clinical decisions. Continuity of care through interdisciplinary collaboration is emphasized.

NURSRN 10543116 Nursing Clinical Transition 2 Credits/Units
This clinical experience integrates all knowledge learned in the previous courses in transitioning to the role of the graduate nurse. The course promotes relatively independent clinical decisions, delegation, and works collaboratively with others to achieve client and organizational outcomes. Continued professional development is fostered.

Madison Area Technical College

NURSRN 10543127 Paramedic to AD Theory 1 3 Credits/Units

This course will focus on basic nursing concepts that the beginning nurse will need to provide care to diverse populations. The nursing process will be introduced as a framework for organizing care of patients with alterations in cognition, elimination, comfort, grief/loss, mobility, skin integrity, and related principles of pharmacology.

NURSRN 10543128 Paramedic to AD Theory 2 3 Credits/Units

This course will cover topics related to health promotion in the context of the family. Nursing care of the developing family topics including reproductive, pregnancy, labor and delivery, postpartum, and the newborn child will be covered. Patterns of adaptive and maladaptive behaviors, family dynamics, and grief and loss will be addressed utilizing mental health principles. An emphasis is placed on teaching and supporting healthy lifestyle changes. Nutrition, exercise/stress management, and risk reduction practices are addressed. Perioperative, malignancy, and chronic illness concepts are reviewed with related pharmacology concepts.

NURSRN 10543129 Paramedic to AD Skills 2 Credits/Units

This course focuses on development of basic skills, clinical skills, and physical assessment across the lifespan. Content includes basic supportive and hygienic cares, mathematic calculations and conversions related to clinical skills, aseptic technique, wound care, tracheostomy care and suctioning, the management of enteral tubes, medication administration, enemas, ostomy care, and physical assessment skills using a body systems approach.

NURSRN 10543130 Paramedic to RN Clinical 2 Credits/Units

This clinical course emphasizes basic nursing skills and application of the nursing process to clients and families across the lifespan. Emphasis is placed on assessment, relationships, communication, data collection, documentation, and medication administration.

NURSRN 10543164 Orientation Associate Degree Nursing 3 Credits/Units

Introduction to the Associate Degree Nursing Program for licensed practical nurses. Prerequisite: Admission to the ADN program and permission of the program director.

NURSRN 10543181 Military Medic RN Fundamentals and Pharmacology 2 Credits/Units

This course focuses on the integration of basic nursing fundamentals and pharmacology nursing concepts to provide evidenced-based care to diverse patient populations across the lifespan.

NURSRN 10543182 Military Medic RN Skills Theory 2 Credits/Units

The course provides students with the opportunity to learn nursing theory behind skills commonly delegated to and within the scope of practice of the Associated Degree Nurse. The course will include the concepts of data collection and reporting patient responses relative to designated skills; skills include but are not limited to: utilization of the nursing process in collaboration with other health care team members and patient/families to address health care needs of individuals/ families across the lifespan; communication both verbal and written; the use of information technology; drug calculation and administration of medications within the ADN scope of practice.

NURSRN 10543184 Military Medic RN Transition to Professional Nursing 1 Credits/Units

This course is designed to facilitate the transition of military health care veterans into the professional nurse role. Topics include: Introduction to the healthcare delivery system, nursing roles within the healthcare delivery system;
communication and collaboration with other members of the health care team. In addition to the exploration of the nursing process, documentation, safety, legal, ethical issues and information technology. The patient-needs framework of the curriculum, and nursing process will be explored.

NURSRN 10543185 Military Medic RN Health Alterations 3 Credits/Units

This course elaborates upon the basic concepts of health and illness as presented in Nursing Fundamentals. It applies theories of nursing in the care of patients through the lifespan, utilizing problem solving and critical thinking. This course will provide an opportunity to study conditions affecting different body systems and apply evidence-based nursing interventions. It will also introduce concepts of leadership and management.

NURSRN 10543186 Military Medic RN Health Promotions 2 Credits/Units

This course focuses on topics related to health promotion for individuals and families throughout the lifespan. We will cover nursing care of the developing family, which includes reproductive issues, pregnancy, labor and delivery, postpartum, the newborn, and the child. An emphasis is placed on teaching and supporting healthy lifestyles choices for individuals of all ages. Nutrition, exercise, stress management, empowerment, and risk reduction practices are highlighted. Study of the family will cover dynamics, functions, discipline styles, and stages of development.

NURSRN 10543188 Military Medic RN Clinical Practicum 2 Credits/Units

This clinical experience applies nursing concepts and therapeutic interventions to clients across the lifespan. It also provides an introduction to concepts of teaching and learning. Extending care to include the family is emphasized.
*Includes skill assessments, and NA skills not met by military training.

Madison Area Technical College

OPTOMET 31516301 Ophthalmic Pre-Testing 3 Credits/Units

Covers the history of optometry, relationships between optometry, ophthalmology and opticianry and various paraprofessional careers in vision care. The course involves the study of and practical experience in patient pre-testing such as case history, visual acuity, color vision, pupil evaluation and depth perception as well as the specialized testing procedures such as keratometry and blood pressure.

OPTOMET 31516305 Basic Optical Concepts 3 Credits/Units

Covers the properties of light and the function of a lens in vision correction. Included is a review of basic math needed in vision care and the physiological aspects of vision. This course begins the study of the neutralization and verification of spectacle lens powers, to include spherical, cylindrical and prism lenses.

OPTOMET 31516315 Ocular Anatomy 2 Credits/Units

Familiarizes the optometric technician with the form and function of the human eye. The foundation of the lecture material is the anatomy of the eye, but we will discuss the physiology and function of the eye as much as possible. We will also discuss the actions and uses of diagnostic pharmaceutical agents, as their function is based on interference with normal ocular physiology. This course also covers optometric terminology as well as prescription translation.

OPTOMET 31516325 Optical Dispensing 1 3 Credits/Units

Covers frame definition, parts and types of frames, measurement of frames and lenses, alignment of frames, inserting and removing lenses, introduction to dispensing of eyewear and frame repairs.

OPTOMET 31516326 Optical Dispensing 2 2 Credits/Units

This course assists the student in developing a mastery of the alignment and adjustment of eyewear. It also covers the various lens materials, multifocal styles and lens tints.

OPTOMET 31516327 Clinical Ophthalmic Procedures 2 Credits/Units

This course prepares the technician to assist the doctor in advanced office techniques in the area of ultrasound, in-office surgical procedures, case history, scribing, instrument maintenance and repair and ophthalmic imaging. Students will also study various systemic diseases and their effect on the eye. The performance of the various skills is emphasized in the laboratory sessions.

OPTOMET 31516330 Contact Lenses 3 Credits/Units

Gives the student in-depth exposure to the technical aspects of clinical contact lens practice. Lecture and laboratory experiences emphasize lens verification, patient education and evaluation.

OPTOMET 31516335 Ophthalmic Specialty Testing 3 Credits/Units

Provides the student experience and knowledge in areas of special vision care procedures: subjective refraction, visual field testing, slit lamp, Goldmann and non-contact tonometry, basic concepts of orthoptics and the treatment of eye diseases including instillation of eye medications and eye patching. Patient instruction and assistance are emphasized in laboratory sessions.

OPTOMET 31516339 Human Relations - Optometric Technician Program 1 Credits/Units

Introduces students to their personal and vocational responsibilities as an optometric technician. The development of communication skills one needs as an optometric technician are introduced. The ethical and legal responsibilities of an optometric technician are defined. Time management techniques will be presented. Basic concepts of stress and how it affects behavior, and stress management are discussed. The course also covers writing a job application letter and resume as well as interview techniques.

OPTOMET 31516340 Patient Relations/Pract Manage 2 Credits/Units

Provides a study of front office management techniques including telephone and appointment book management, filing, recall systems, bookkeeping and insurance claim processing.

OPTOMET 31516345 Preclinical 2 Credits/Units

Prepares students for clinical affiliation by having them complete vision screenings on patients from the college. Class discussions are held analyzing the results of the screening as well as the students' performance.

OPTOMET 31516346 Preclinic A 1 Credits/Units

Prepares students for clinical work. Students explore their professional responsibilities of providing quality eye care. Students then participate in class discussions, explore variations of visual screenings and student responsibilities.

OPTOMET 31516347 Preclinic B 1 Credits/Units

Prepares students for clinical work. Students perform screenings on patients and then participate in class discussions. Explore variations of visual screenings and student responsibilities.

OPTOMET 31516350 Clinical Experience 3 Credits/Units

Students participate in assigned clinical experience in an optometric or clinic setting. The student is expected to achieve specific educational objectives determined for this experience.

OTASST 10514171 **Introduction to Occupational Therapy** **3 Credits/Units**
Provides an overview of history, philosophy, ethics, and scope of occupational therapy practice. Examines legal responsibilities, professional resources, and organization. Students practice basic skills related to therapeutic relationships and determine their own suitability to a career in occupational therapy. Pre-requisites: Algebra, Chemistry and Biology. Co-Requisites: 10-514-172, 10-514-173, 20-806-206

OTASST 10514172 **Medical and Psychosocial Conditions** **3 Credits/Units**
Introduces medical and psychosocial conditions as they relate to occupational therapy practice. Topics include etiology, symptomology, treatment and contraindications. Pre-requisites: Algebra, Chemistry and Biology. Co-Requisites: 10-514-171, 10-514-173, and 20-806-206

OTASST 10514173 **Activity Analysis and Application** **2 Credits/Units**
Provides instruction in activity analysis with hands on experience in activities across the lifespan. Students apply the teaching/learning process and adhere to safety regulations. Pre-requisites: Algebra, Chemistry and Biology. Co-Requisites: 10-514-171, 10-514-172, and 20-806-206

OTASST 10514174 **OT Performance Skills** **4 Credits/Units**
Emphasis on the development of skills related to assessment and intervention in the areas of sensory, motor, cognition and communication.

OTASST 10514175 **Psychosocial Practice** **3 Credits/Units**
Examines the role of the OTA in the service delivery to individuals affected by mental health conditions. Provides opportunity for development of skills related to psychosocial assessment and interventions. Pre-requisites: 10-514-171, 10-514-172, 10-514-173 & 20-806-206. Co-requisites: 10-514-174, 10-514-176, 10-514-178

OTASST 10514176 **OT Theory and Practice** **3 Credits/Units**
Examines the theoretical foundations that guide OT practice. Apply group dynamics and demonstrate leadership skills.

OTASST 10514178 **Geriatric Practice** **3 Credits/Units**
Examines the role of the OT in the service delivery to elders in a variety of settings. Includes analysis of the impact of age-related changes and disease processes on the function of the elderly. Pre-requisites:10-514-171, 10-514-172,10-514-173 & 20-806-206. Co-requisites: 10-514-174, 10-514-175, 10-514-176

OTASST 10514179 **Community Practice** **2 Credits/Units**
Explores practice options and interventions for occupation-based community practice. Students articulate the unique role of occupational therapy within the community. Prerequisites: 10-514-174, 10-514-175, 10-514-176, 10-514-178. Co-requisites: 10-514-177, 10-514-182, 10-514-183, 10-514-184

OTASST 10514184 **OTA Fieldwork 1** **2 Credits/Units**
Integrate classroom theory and practice into a Fieldwork Level I experience. Provides experiences to assist in the development of communication, professional and observational skills.

OTASST 10514185 **OT Practice and Management** **2 Credits/Units**
Provides opportunities to practice clinical management skills, continuous quality improvement measurement, and administrative concepts and procedures. Students create a professional development plan.

OTASST 10514186 **OTA Fieldwork IIA** **5 Credits/Units**
Develop skills and behaviors necessary for entry-level occupational therapy assistant practice. Provides a different clinical practice setting than OTA Fieldwork IIB.

OTASST 10514187 **OTA Fieldwork IIB** **5 Credits/Units**
Develop skills and behaviors necessary for entry level occupational therapy assistant practice. Provides a different clinical practice setting than OTA Fieldwork IIA.

OTASST 10514189 **OT Phys Rehab Practice** **4 Credits/Units**
Explores interventions relative to major physical disability diagnoses seen in OT practice. Evaluation, treatment interventions, assistive technology and documentation are emphasized relative to the biomechanical, neurodevelopmental and rehabilitative approaches to practice.

OTASST 10514190 **OT Pediatric Practice** **4 Credits/Units**
Explores interventions relative to major pediatric- diagnoses seen in OT practice. Evaluation, treatment interventions, assistive technology and documentation are emphasized within the context of the child's occupations.

Madison Area Technical College

PARALEG 10110101 **Introduction to Law** **3 Credits/Units**

Students are introduced to the American legal system, legal ethics, legal terminology, legal research and writing and the common law of torts.

PARALEG 10110102 **Civil Litigation I** **3 Credits/Units**

Students outline the initial stages of civil litigation, including initial client contact, investigation, pleadings and motions. Students draft pleadings and motions.

PARALEG 10110103 **Civil Litigation 2** **3 Credits/Units**

Students cover the civil litigation procedure during discovery, trial, and appeal.

PARALEG 10110104 **Legal Research** **3 Credits/Units**

Students gain practical experience applying legal research and legal citation techniques, using traditional and electronic resources.

PARALEG 10110105 **Legal Writing** **3 Credits/Units**

Students gain practical skills required for legal writing and analysis.

PARALEG 10110106 **Family Law** **3 Credits/Units**

Students gain practical experience in the area of family relations, particularly divorce.

PARALEG 10110107 **Legal Aspects of Business Organizations** **3 Credits/Units**

Students gain practical experience with legal aspects of the formation, operation, and dissolution of the five principal types of business organizations utilized in the United States.

PARALEG 10110108 **E-Discovery and Digital Tools** **3 Credits/Units**

Students gain experience working with litigation software and e-Discovery software used for document review and coding.

PARALEG 10110110 **Real Estate Law - Legal Studies/Paralegal** **3 Credits/Units**

Students analyze and/or draft real estate descriptions, listing contracts, offers to purchase, deeds, easements, land contracts, mortgages, transfer tax returns, foreclosure pleadings, and leases.

PARALEG 10110114 **Administration of Estates - Legal Studies/Paralegal Program** **3 Credits/Units**

Students gain knowledge of basic legal concepts surrounding powers of attorney, wills, trusts, and intestacy, including probate forms and procedures as well as inheritance tax returns.

PARALEG 10110115 **Administrative Law** **3 Credits/Units**

Students explore the process by which government agencies make and administer rules and regulations as well as how agencies adjudicate cases and controversies involving those rules.

PARALEG 10110122 **Bankruptcy Law** **3 Credits/Units**

Students explore pre- and post-judgment collection rights, creditor protections, state and federal consumer protection laws, and federal bankruptcy laws.

PARALEG 10110141 **Computer Applications - Legal** **3 Credits/Units**

Students are introduced to software applications used in law offices, including the ethical use of computers and software and concepts of data security to develop law office technology skills.

PARALEG 10110142 **Legal Internship** **3 Credits/Units**

Students gain practical experience working in a legal environment under the supervision of an attorney or other qualified professional for a minimum of 140 hours.

PARALEG 10110168 **Criminal Law - Legal Studies/Paralegal** **3 Credits/Units**

Students are introduced to substantive and procedural criminal law emphasizing the elemental analysis of criminal statutes, the drafting of prosecutorial documents, and the Constitutional rights of defendants.

PARALEG 10110171 **Immigration Law** **3 Credits/Units**

Students explore the following content areas of immigration law: interview techniques and case management; temporary visas for business, pleasure, investing, studying, and employment; family-based permanent residency; employment-based permanent residency; political asylum; refugee status; citizenship; and the appeal process.

PARALEG 10110173 **Contract Law in a Global Economy** **3 Credits/Units**

Students explore the common law of contracts, contracts of sale under Article 2 of the UCC, and the legal issues that affect business transactions in the global market.

Madison Area Technical College

PARALEG 10110175 **Orientation to the Legal Profession** **1 Credits/Units**

Students are introduced to the legal profession, classes offered in the legal studies/paralegal program, and tools for success in the legal studies/paralegal program and the legal field. Students enroll in their upcoming semester courses.

PARALEG 10110176 **Career Building Techniques - Legal Studies/Paralegal** **2 Credits/Units**

Students will focus on internship and career strategies.

PHILOS 10809103 **Think Critically & Creatively** **3 Credits/Units**

Provides instruction about critical and creative thinking that is in high demand in all occupations. Models, theories, and processes provide the foundation for learning logical thinking strategies. Students will apply a systematic approach to problem solving by analyzing the problem, assessing possible solutions, and making effective decisions. In addition, students will generate ideas and analyze complex issues. This course assists students with developing a critical thinking mindset which is essential at every level of personal and professional life.

PHILOS 10809166 **Introduction to Ethics: Theory and Application** **3 Credits/Units**

This course provides a basic understanding of the theoretical foundations of ethical thought. Diverse ethical perspectives will be used to analyze and compare relevant issues. Students will critically evaluate individual, social and/or professional standards of behavior, and apply a systematic decision-making process to these situations.

PHILOS 20809260 **Intro Philosophy** **3 Credits/Units**

Philosophy involves the critical examination of our fundamental beliefs, values and practices. This course introduces the fields, methods and history of philosophy, and gives students the opportunity to explore some issues (e.g., the possibility of knowledge, the existence of God, free will, the nature of morality) in depth and to develop the ability to think, speak and write critically about complex questions.

PHILOS 20809261 **Elementary Logic** **4 Credits/Units**

This course covers contemporary formal logic, including propositional and predicate logic with identity. Students will translate English sentences into symbolic form and evaluate arguments using truth tables, derivations, truth trees, and counterexamples. It fulfills the Quantitative Reasoning B requirement at UW-Madison and the logic requirement at Edgewood College. Assumes a strong background in algebra.

PHILOS 20809262 **Contemporary Moral Issues** **3 Credits/Units**

This course introduces students to several different ethical theories and how they apply to contemporary moral controversies, such as the death penalty, war and terrorism, reproductive choices, immigration, environmental ethics, and free speech. This course aims at showing how many moral controversies are as much about the legitimate use of state authority as they are about moral disagreement.

PHILOS 20809263 **East/West World View** **3 Credits/Units**

East/West Worldviews examines worldviews and their underlying assumptions. The course introduces philosophical issues such as the relationship between science and religion, challenges raised from other perspectives, and contemporary perspectives in religious plurality. The course focuses on the religions originating in India, East Asia, and in the Middle East. It studies the ways in which philosophy and/or religion affects the concepts of nature, self, society, and ultimate reality.

PHILOS 20809264 **Introduction to Logic and Critical Thinking** **3 Credits/Units**

An informal logic course (previously called Reason in Communication) that emphasizes critical thinking. Students will learn argument structure, different forms of inductive reasoning, how to recognize informal fallacies, and how to distinguish better and worse reasoning in the media and our everyday lives. Fulfills the Quantitative Reasoning Part A requirement at UW-Madison, as well as the logic requirement at Edgewood College. This course includes an introduction to propositional logic, but for those students interested in a formal (symbolic) logic course, see course #20809261, Elementary Logic, which fulfills the Quantitative Reasoning Part B requirement at UW-Madison, as well as the logic requirement at Edgewood College.

PHILOS 20809266 **Ethics In Medicine** **3 Credits/Units**

Behavior within the healthcare system, whether as a patient or as a healthcare worker, presents challenges that differ from the typical consumer environment or the typical workplace. This course explores these differences and presents and discusses ethical issues particular to medicine. Heightens awareness and examines ways to conduct one's self within this healthcare environment.

PHILOS 20809276 **Business Ethics** **3 Credits/Units**

This course explores the moral choices we make in business and the assumptions behind them. Topics include honesty, fairness, the merits of capitalism, corporate responsibility, and workplace ethics. Through philosophical argument, we will examine issues like affirmative action, whistleblowing, and profit, aiming to clarify what we ought to do and why.

PHOTO 10203104 **Image Editing and Workflow** **2 Credits/Units**

Provides students with a working knowledge of the technical part of digital photography workflow, including the basic principles of working with Adobe Photoshop.

Madison Area Technical College

PHOTO 10203105 **Photo Composition** **2 Credits/Units**

A survey of composition is an important tool of the photographer that helps to establish purpose and meaning to visual statements. Includes an introduction to the history of photography and the field of professional photography through the work of some noted photographers. Written and photographic assignments are required.

PHOTO 10203107 **Camera & Flash Essentials** **3 Credits/Units**

Basic theory and practical application of the fundamentals of photography. Students will learn the basics of DSLR cameras, lenses, the light meter, digital exposure and capture, basic studio lighting with hot lights and studio equipment handling.

PHOTO 10203108 **Studio Photography** **3 Credits/Units**

This course focuses on advanced studio strobe lighting techniques, metering, and exposure for extreme scenes. Students will also learn the differences between professional digital backs and DSLR systems through hands-on experience with each format.

PHOTO 10203120 **Lighting Technique** **2 Credits/Units**

Lighting Techniques is a first-semester course and provides the cornerstone for concurrent and future photography and video production courses you will take in the program. Become familiar with the characteristics and qualities of light. Acquire specific skills in hard and soft light; lighting direction; incident and reflective exposure determination; lighting for shape and texture; lighting glassware; lighting reflective subjects; basic lighting for simple portraiture; and operation of professional lighting equipment in the studio.

PHOTO 10203121 **Commercial Photography 1** **3 Credits/Units**

This class is designed to give you some techniques for lighting practical commercial projects including, but not limited to: glass, food, small product, and metallic objects. Topics will also include painting with light and other basic commercial theory. Basic commercial Photoshop techniques will also be explored.

PHOTO 10203123 **Commercial Photography 2** **3 Credits/Units**

This class is designed to give you some advanced knowledge of commercial photography and lighting concepts for the business world. Advanced Photoshop techniques will be explored as well as compositing and other commercial lighting theory.

PHOTO 10203124 **Portrait Photography** **2 Credits/Units**

This class is designed to give you the basics of professional portraiture. This class covers the classic lighting patterns along with some modifications of those patterns as well as discovering the proper metering and use of soft boxes for portraiture for studio work. Basic retouching will also be addressed in Photoshop. Additionally, this course also will explore some basic posing techniques for individual portraits.

PHOTO 10203125 **Business of Photography** **2 Credits/Units**

This course is designed to help students understand the basic principles of creating a photo business. Throughout the semester students will research and create their own business plans. Areas such as sales revenue forecast, marketing, overhead and capital spending plan will be explored.

PHOTO 10203126 **Advanced Portrait Photography** **2 Credits/Units**

This class discusses advanced portrait options for both studio and location settings as well as the equipment that cover such assignments. This class will also explore more advanced posing for groups and advanced portrait situations along with mixed light options and how to adjust for those lighting situations.

PHOTO 10203129 **Professional Nature and Conservation Photography** **2 Credits/Units**

Closely surveys the fields of nature and conservation photography, including digital photo techniques and use of equipment and techniques for adjustment and manipulation of images. The work of successful professional nature photographers will be examined as examples for student work. The course includes photography in the field and review of student work by the instructor and classmates. The course will also include strategies for making a living from nature and conservation photography. Prerequisites: Student must have completed the first year of the Photography program, have a working knowledge of Adobe Photoshop and own a digital single lens reflex camera. Non-program professionals may enroll in the class with the consent of the instructor.

PHOTO 10203130 **Introduction to Photography and Video** **2 Credits/Units**

An Introduction to the common elements of the photography and videography process. The basic principles of effective composition, lighting, exposure and control of motion and focus are covered. Basics of portraiture and product photography is studied in a studio environment. Specific requirements to video content creation are addressed. Participants provide their own video-enabled DSLR camera. Please contact your program director prior to any camera purchase.

PHOTO 10203134 **Advanced Image Editing** **3 Credits/Units**

This course explores advanced computer skills, issues and skills unique to electronic image handling, utilization of image enhancement software, operation of desktop scanners as input devices, preparation of image for the World Wide Web, and legal and ethical issues regarding electronic image handling and manipulation.

PHOTO 10203141 **Digital Color Workflow** **3 Credits/Units**

Basic introduction to additive and subtractive color theory using digital color principles. Digital image capture, manipulation and output will be covered, along with basic color management principles and techniques.

PHOTO 10203143 **Photography Portfolio Preparation** **3 Credits/Units**

This course guides photography students in creating a professional portfolio that showcases their skills and expertise. To enrich the learning experience, local photography professionals visit the class to provide feedback on student portfolios. The semester culminates in a Portfolio Show, celebrating student achievements. Final portfolio approval from the department is required.

PHOTO 10203144 **Trends in Digital Photography** **1 Credits/Units**

This exploratory course emphasizes personal projects and the development of individual photographic style and identity. Students will create their own website and self-promotion materials, showcasing their work while leveraging modern digital platforms for professional growth.

PHOTO 10203173 **Photojournalism** **2 Credits/Units**

Photography for publication with the visual image used to relate events, ideas or circumstances. Students are exposed to techniques in which news stories can be communicated through visual images in print.

PHOTO 10203174 **Photography on Location** **3 Credits/Units**

From portraits and fashion to architecture and product, working on location presents unique challenges and involves a broad base of knowledge and resources. This class will cover a wide range of information pertaining to working on location. With a heavy focus on lighting techniques, from on camera flash to full strobe set ups and the production side of location photography.

PHOTO 10203199 **Photography Internship** **1 Credits/Units**

Off-campus experience in a professional photography setting.

PHYSGEO 20806236 **Introduction to Geographic Information Systems and Science** **4 Credits/Units**

This course offers an introduction to Geographic Information Systems (GIS), which are used in a wide variety of fields to describe, analyze, manage, and map spatial data. Students develop highly marketable GIS skills by learning fundamental principles and applying them to real-world scenarios in a variety of natural resource, social science, health, and business fields.

PHYSICS 10806139 **Survey of Physics** **3 Credits/Units**

This course emphasizes understanding basic physics concepts through laboratory investigation and applications. Topics include kinematics, dynamics, work, energy, power, temperature, heat, waves, electricity, magnetism, electromagnetic waves, optics, and atomic and nuclear physics.

PHYSICS 10806154 **General Physics 1** **4 Credits/Units**

Presents the applications and theory of basic physics principles. This course emphasizes problem-solving, laboratory investigation, and applications. Topics include unit conversion and analysis, vectors, translational and rotational kinematics, translational and rotational dynamics, heat and temperature, and harmonic motion and waves.

PHYSICS 20806220 **Physics of Everyday Life** **3 Credits/Units**

Have you ever looked at something and said to yourself "I wonder how that works?" If so, this is the course for you. Physics of Everyday Life will explore basic principles of physics including classical mechanics, fluids, heat, resonance, waves, light and electricity and magnetism through the lens of everyday objects. We will gain insight through studying objects such as bumper cars, roller coasters, light bulbs, musical instruments, and microwave ovens.

PHYSICS 20806221 **University Physics 1** **5 Credits/Units**

University Physics 1 is the first semester of a one-year introductory course. Students develop a conceptual understanding of the basics of physics and are provided with practical hands-on lab experience, which helps to broaden the understanding of physics. This course covers the basic properties of motion, force, energy, momentum, rotation, fluids, heat and relativity. It stresses developing good problem-solving strategies.

PHYSICS 20806222 **University Physics 2** **5 Credits/Units**

University Physics 2 studies thermodynamics, electricity, magnetism, sound, geometric and physical optics through lecture, demonstrations and laboratory work.

PHYSICS 20806223 **University Physics 1-Calculus-Based** **5 Credits/Units**

This course is intended for students of science or engineering. The course covers mechanics and heat. It consists of five one-hour lectures and one three-hour laboratory per week and is equivalent to Physics 201 at the University of Wisconsin.

PHYSICS 20806224 **University Physics 2-Calculus Based** **5 Credits/Units**

This course is intended for students of science or engineering, and is a continuation of 20-806-223. It covers electricity, magnetism, light and sound and is equivalent to Physics 202 at the University of Wisconsin.

PHYSICS 20806235 **Modern Physics** **3 Credits/Units**

Modern Physics introduces students of science or engineering to special relativity, quantum physics, the Schrodinger equation, atomic structure, statistical physics, band theory of solids, semiconductors, nuclear physics, and special topics.

PHYSICS 20806239 **Modern Physics Lab** **1 Credits/Units**

This one-credit laboratory course is comprised of experiments in modern physics. Selected content includes experiments in quantum, solid state, atomic, and nuclear physics. Students will gain experience in the use of high-precision laboratory equipment and electronics, advanced computational methods, and sophisticated analysis techniques, including a rigorous examination of uncertainty and error propagation. Effectively communicating experimental results and technical writing is emphasized.

PHYSICS 20806287 **Special Topics: Energy Storage** **2 Credits/Units**

This course is an orientation to various energy storage systems and emphasizes Lithium-Ion battery technology. Become familiar with how energy storage systems work and how to size a battery energy storage system. Compare and contrast energy storage systems and determine the best system for an application.

PHYSICS 20806290 **Renewable Energy for International Development** **3 Credits/Units**

The 3 credit Renewable Energy for International Development provides an examination of energy and economics in developing countries with special consideration given to renewable energy sources. The course combines 8 weeks of online instruction with 10 days of travel and study abroad in Costa Rica. Students will learn to specify, design, and install renewable energy systems for the developing world. Students will install operational renewable energy systems in the field with current renewable energy equipment. An alternate 1 credit course is also offered for transfer credit as 10-140-112, (Renewable Energy for the Developing World) that does not include the 8 weeks of online instruction.

PHYSICS 20806291 **Introduction to Renewable Energy/Renewable Energy Technology** **3 Credits/Units**

This course provides an introduction to renewable energy technology. The course is grounded in the fundamentals of energy, power, and the first and second laws of thermodynamics. A scientific approach is used to examine various energy sources, including fossil fuels, nuclear, biomass, biofuels, solar, hydro, wind, geothermal, and ocean/tidal power. Various types of energy storage technology are also examined. Science and engineering challenges are examined for each energy technology, along with economic and environmental impacts. This course is suitable for any student with an interest in renewable energy, particularly those pursuing studies in scientific, technical, and engineering fields.

PHYSICS 20806292 **Solar Photovoltaic Technology/Solar Energy Technology** **3 Credits/Units**

Examines the scientific principles, engineering design, and economic analysis of solar photovoltaic systems. Complete a site assessment, specify hardware components, and model economic performance for a solar PV system. This course can be applied as an elective for several STEM degree programs at Madison College and four-year universities, particularly those with program emphases in sustainability and renewable energy.

PHYSICS 20806293 **Solar Photovoltaic Installation Lab** **1 Credits/Units**

In this hands-on course, students will install one or more fully operational full scale solar photovoltaic (PV) systems. The course is taught at the Commercial Avenue Campus Solar Training Lab, which features pitched roof, flat roof, and pole mount solar PV systems. Students will learn safe workplace practices, electrical code compliance, and interconnection commissioning procedures while working with solar panels, racking systems, DC/AC power inverters and other balance of system components. The course is taught as a two-day intensive short course in order to replicate the type of installation practices and working conditions that are common in the solar industry.

PHYSICS 20806296 **Advanced Solar Photovoltaic Technology** **1 Credits/Units**

This course provides a deeper exploration of solar photovoltaic technology, tools, and equipment used for clean energy site assessment, operations, and maintenance. Skills learned will include use of aerial drones, photogrammetric imaging, IV curve tracers, and infrared thermal cameras, along with data analytics to characterize system performance.

PLUMBNG 50427751 **Sanitary Drains 1** **2 Credits/Units**

Plumbing related instruction of sanitary drain systems. Course includes a review of codes and trade practices related to sanitary drains, drainage systems, components and applications.

PLUMBNG 50427752 **Vents and Venting Systems** **2 Credits/Units**

This course is designed to provide the apprentice with the skills to identify and design sanitary vent piping in a plumbing system in accordance with the Wisconsin Plumbing Code. The course focuses on theory, work experience, and the application of plumbing code principles through discussions, drawing exercises, work sheets, and evaluations.

PLUMBNG 50427753 **Water Distribution 1** **2 Credits/Units**

Provides the apprentice with the skills to identify, design, install, and service various applications for water supply systems listed in plumbing codes. Apprentices will use the code language and tables to in various plumbing systems in accordance with the Wisconsin Plumbing Code. Topics will include commercial to single-family and private well pump systems. Focuses on theory, work experience, and the application of plumbing code principles through discussions, drawing exercises, work sheets, and evaluations. Plumbing Apprentice students only.

PLUMBNG 50427754 Water Distribution 2 2 Credits/Units
Provides the apprentice with the skills to identify, design, install, and service cross connection controls, water treatment equipment and multi-purpose piping systems in various plumbing systems in accordance with the Wisconsin Plumbing Code. Focuses on theory, work experience, and the application of plumbing code principles through discussions, drawing exercises, work sheets, and evaluations.

PLUMBNG 50427755 Sanitary Drains 2 2 Credits/Units
Provides the apprentice with the skills to identify, design, install, and service various applications for storm water, clear water, and drainage systems. Apprentices will use the code language and tables to in various plumbing systems in accordance with the Wisconsin Plumbing Code. The course focuses on theory, work experience, and the application of plumbing code principles through discussions, drawing exercises, work sheets, and evaluations.

PLUMBNG 50427756 Private On-Site Wastewater Treatment Systems (POWTS) 2 Credits/Units
Provides the apprentice with the skills to identify, design, install, and service various applications for private on-site wastewater treatment systems that are listed in plumbing codes or individual component manuals. Apprentices will use the code language and tables to in various plumbing systems in accordance with the Wisconsin Plumbing Code. Other topics will include pretreatment, soil evaluation, site planning, and new technologies. Focuses on theory, work experience, and the application of plumbing code principles through discussions, drawing exercises, work sheets, and evaluations.

PLUMBNG 50427757 Green Plumbing Applications 2 Credits/Units
Provides Plumbing apprentices with an introduction to green applications and prepares students to take certification exams: Union Programs: UA Green Awareness Certification (geared toward journey workers, not apprenticeship) WTCS Programs: Green Plumbers USA Certification Program Learning materials from both certificate programs have been incorporated.

PLUMBNG 50427758 Plumbing Advanced Topics/TSA 2 Credits/Units
Provides the apprentice with the opportunity to select and complete an applied plumbing project in collaboration with the instructor. Projects will apply the skills required to identify, design, install, and service various plumbing applications that are listed in plumbing codes. Apprentices will use the code language and tables to in various plumbing systems in accordance with the Wisconsin Plumbing Code. The course builds upon the theory, work experience, and the application of plumbing code principles addressed in previous coursework to support completing an applied hands-on project.

POLISCI 10809122 Introduction to American Government 3 Credits/Units
Introduces American political processes and Institutions. Focuses on rights and responsibilities of citizens and the process of participatory democracy. Learners examine the complexity of the separation of powers and checks and balances. Explores the role of the media, interest groups, political parties and public opinion in the political process. Also explores the role of state and national government in our federal system.

POLISCI 20809218 Law and Society 3 Credits/Units
Law and Society examines the relationship between the law and civil society in the United States. Students (a) summarize common law system and American history, (b) analyze formal legal and social institutions, and (c) evaluate the relationship between law and society. Students will complete exams and written assignments.

POLISCI 20809222 State and Local Government 3 Credits/Units
State and Local Government examines American state and local government institutions, politics, and policies. Students (a) summarize state and local government history, (b) analyze state and local government institutions, and (c) evaluate state and local government public policies. Students will complete exams and written assignments.

POLISCI 20809223 International Relations 3 Credits/Units
International Relations examines nation-states and non-governmental organizations interactions within the global political system. Students (a) summarize international political history, (b) analyze international political institutions, and (c) evaluate international political and economic issues. Students will complete exams and written assignments.

POLISCI 20809227 Political Theory 3 Credits/Units
Political Theory examines foundational Western political thinkers and ideas. Students (a) summarize political theory history and thinkers, (b) analyze assumptions of human nature and social solidarity, and (c) evaluate theories of political authority and institutions. Students will complete exams and written assignments.

POLISCI 20809242 Public Policy 3 Credits/Units
Public Policy examines the purpose, history, and development of public policy in the United States. Students (a) summarize public policy significance and history, (b) analyze public policy institutions and processes, and (c) evaluate public policies using cost-benefit analysis methods. Students will complete exams and written assignments.

Madison Area Technical College

POLISCI 20809245 **Gender and Politics** **3 Credits/Units**

Gender and Politics covers topics such as feminism, intersectionality, political participation and representation, and social movements. Students in this course will analyze, evaluate, and compare the effects of strategies to enhance gender equality, and women's political participation and representation, across state, national, and international institutions.

POLISCI 20809246 **African Politics** **3 Credits/Units**

African Politics examines continental political development in an interdisciplinary context. Students summarize African history, analyze internal and external influences on African politics, and evaluate relationship among African states, societies, and interests.

PROFDEV 47196534 **Individual Excellence** **0.6 Credits/Units**

This course will teach you twelve vital career-enhancing skills. You will establish a clear career path and use skills like interpersonal communication and time management to achieve your goals. You will also learn how to utilize your creativity and problem-solving skills to work through adversity.

PSYCH 10809159 **Abnormal Psychology** **3 Credits/Units**

The course addresses the foundations of abnormal psychology and psychological disorders, including their characteristics, possible causes, assessments, diagnostic processes, and treatments. The course includes examination of major historical and theoretical perspectives, research, sociocultural considerations, and elements of psychological wellness.

PSYCH 10809188 **Developmental Psychology** **3 Credits/Units**

Developmental Psychology is the study of human development throughout the lifespan. This course explores developmental theory and research with an emphasis on the interactive nature of the biological, cognitive, and psychosocial changes that affect the individual from conception to death. Application activities and critical thinking skills will enable students to gain an increased knowledge and understanding of themselves and others.

PSYCH 10809198 **Introduction to Psychology** **3 Credits/Units**

This science of psychology course is a survey of multiple aspects of behavior and mental processes. It provides an overview of topics such as research methods, theoretical perspectives, learning, cognition, memory, motivation, emotions, personality, abnormal psychology, physiological factors, social influences, and development.

PSYCH 10809199 **Psychology Of Human Relations** **3 Credits/Units**

This course explores the relationship between general psychological principles and our everyday lives. Students are given the opportunity to achieve a deepened sense of awareness of themselves and others. This understanding is applied to human relations at home and on the job.

PSYCH 20809201 **Human Sexuality** **3 Credits/Units**

Use empirical research to examine the biological, psychological, and social aspects of human sexuality. Investigate how culture and history shape our understanding, alongside contemporary social, ethical, and political issues. Topics include sexual anatomy, gender development, love, relationships, sexual orientation, expression, sex work, and education. Covers practical aspects like consent, sexual health, contraception, and pregnancy, and how sexuality evolves through the lifespan.

PSYCH 20809210 **Psychology of Men** **3 Credits/Units**

Psychology of Men examines and analyzes ways biology, culture and society shape identity and life experiences of the American male. Included in the course are historical views, socialization, manliness, competitiveness and sports, violence and war, work and success, sexuality, health, relations with other men, women and children, and alternatives for men.

PSYCH 20809225 **Social Psychology** **3 Credits/Units**

This course explores the scientific study of how people think about, influence, and interact with each other. Students will examine both classic and contemporary theories and research in social psychology covering topics such as social cognition, attitudes and persuasion, social and cultural influences, group processes, relationship dynamics, prejudice and discrimination, helping, and aggression.

PSYCH 20809233 **Developmental Psychology** **3 Credits/Units**

Developmental Psychology covers the principles of human growth and behavioral development, from conception to death. Topics include methods of studying human behavior, theoretical approaches, individual differences, patterns and sequences of development, and relationships with peers and others.

PSYCH 20809237 **Abnormal Psychology** **3 Credits/Units**

The course addresses the foundations of abnormal psychology and psychological disorders, including their characteristics, possible causes, assessments, diagnostic processes, and treatments. The course includes examination of major historical and theoretical perspectives, research, sociocultural considerations, and elements of psychological wellness.

PSYCH 20809239 **Child Human Development** **3 Credits/Units**

This course covers human development from conception through childhood. Study is approached from the perspective of cognitive-emotional, biological and psychosocial domains. Both theory and application are covered.

PSYCH 20809249 **Educational Psychology** **3 Credits/Units**

This course provides the opportunity for learners to develop knowledge, skills and understanding of educational psychology. Learners will explore contemporary and historical theories surrounding teaching and learning. We will explore both pedagogical (child) and andragogical (adult) learning theory focusing on research, best practices, motivation, development, individual differences, diversity, technology and areas of controversy and debate.

PSYCH 20809296 **Cognitive Psychology** **3 Credits/Units**

This course will focus on the theoretical and empirical issues involved in both learning and cognitive processes. The nature of decision-making, language, memory, concept attainment, learning, perception, and problem solving, along with applications of these concepts will be explored.

PSYCH 20809297 **Sport and Performance Psychology** **3 Credits/Units**

Sport and Performance Psychology is the multi-disciplinary study of the important elements connected to the psychology of the human being ability to achieve peak performance. The course will address the components required for success on the ball field, in the classroom, on the stage or while at work in one's career.

QUALCTRL 31623110 **Introduction to Geometric Dimensioning and Tolerancing (GDT)** **1 Credits/Units**

Students will be introduced to Geometric Dimensioning and Tolerancing (GDT). Symbols, Rules and Concepts, Datums, and Types of Tolerancing will be introduced and practiced in accordance to the current ASME standard.

QUALCTRL 31623111 Applied Geometric Dimensioning and Tolerancing (GDT) 1 Credits/Units
This course focuses on the creation of inspection routines on portable inspection arms and coordinate measuring machines (CMM). Students will interpret geometric dimensioning and tolerancing symbology on engineering drawings to create and execute the inspection of precision parts.

QUALCTRL 31623133 Inspection Planning 1 Credits/Units
This course uses Inspection software to create inspection documentation, used in the manufacture of parts and products. Using inspection routines and data created in the Applied GDT course, students will create quality control documentation to assure part accuracy.

QUALCTRL 31623165 Quality Engineering Fundamentals 3 Credits/Units
This course provides and introduction to the fundamental statistical methods used for inspection and communication of inspection results. Examples include graphical tools, process control charts, statistical software, and Production Part Approval Process (PPAP).

QUALCTRL 31623354 Advanced Metrology 3 Credits/Units
This course expands the content covered in Applied GDT through the interpretation of geometric dimensioning and tolerancing applications. Automated part inspection using the CMM and reverse engineering to create part geometry is also practiced.

RADTEC 10526149 Radiographic Procedures 1 5 Credits/Units
Prepares radiography students to perform routine radiologic procedures on various parts of the body including the upper body, hip, pelvis and ankle. Students apply knowledge of human anatomy to position the patient correctly to achieve the desired result. Corequisites: 10-526-150, 10-526-158, 10-526-159, and 10-526-168.

RADTEC 10526158 Introduction to Radiography 3 Credits/Units
Introduces students to the role of radiography in health care. Students apply legal and ethical considerations to patient care and pharmacology in the radiologic sciences. Corequisites: 10-526-149, 10-526-159, 10-526-168.

RADTEC 10526159 Radiographic Imaging 3 Credits/Units
Introduces radiography students to the process and components of imaging. Students determine the factors that affect image quality including contrast, receptor exposure, spatial resolution and distortion.

RADTEC 10526168 Radiography Clinical 1 2 Credits/Units
This beginning level clinical course prepares radiography students to perform radiologic procedures on patients with extensive supervision and direction. Students apply radiation protection and standard precautions in the production of radiographs in a health care setting while adhering to legal and ethical guidelines. An emphasis of the course is the development of communication and critical thinking skills appropriate to the clinical setting.

RADTEC 10526174 ARRT Certification Seminar 2 Credits/Units

Radiography prepares individuals for a career in diagnostic radiology (x-ray) as a radiographer. The radiographer is a technologist who produces images of the human body to aid physicians in the diagnosis of injuries and diseases. Grades of the program are eligible to take the entry-level certification examination administered by the American Registry of Radiography Technologists (AART) and may obtain employment in x-ray departments associated with hospitals, medical clinics, veterinary clinics, and private offices.

Program curriculum focuses on theoretical and applied radiography and includes a clinical experience in a radiographic department. The program is accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT). Students learn to use x-ray imaging machines to demonstrate body parts on x-ray films for diagnostic purposes, including diagnostic radiology, bedside and trauma procedures, pediatric radiography, and special procedures.

RADTEC 10526189 Radiographic Pathology 1 Credits/Units
Prepares radiography students to determine the basic radiographic manifestations of pathological conditions. Students classify trauma related to site, complications, and prognosis and locate the radiographic appearance of pathologies.

RADTEC 10526191 Radiographic Procedures 2 5 Credits/Units
Prepares radiography students to perform routine radiologic procedures on various parts of the body including the skull and spine. Students apply knowledge of human anatomy to position the patient correctly to achieve the desired result.

RADTEC 10526192 Radiography Clinical 2 3 Credits/Units
This second level clinical course prepares radiography students to perform radiologic procedures on patients with extensive supervision and direction. Students apply radiation protection and standard precautions in the production of radiographs in a health care setting while adhering to legal and ethical guidelines. An emphasis of the course is the development of communication and critical thinking skills appropriate to the clinical setting.

Madison Area Technical College

RADTEC 10526193 **Radiography Clinical 3** **3 Credits/Units**
This third level clinical course prepares radiography students to perform radiologic procedures on patients with supervision and direction. Students apply radiation protection and standard precautions in the production of radiographs in a health care setting while adhering to legal and ethical guidelines. An emphasis of the course is the demonstration of communication and critical thinking skills appropriate to the clinical setting.

RADTEC 10526194 **Imaging Equipment Operation** **3 Credits/Units**
Introduces radiography students to the principles and application of x-ray technology. Students analyze how x-rays are produced and determine the corrective actions necessary for common equipment malfunctions. Prerequisite: 10-526-193. Corequisites: 10-526-195, 10-526-196 and 10-526-199

RADTEC 10526195 **Radiographic Image Analysis** **2 Credits/Units**
Prepares radiography students to analyze radiographic images for quality. Students apply quality control tests to determine the causes of image problems including equipment malfunctions and procedural errors.

RADTEC 10526197 **Radiation Protection & Biology** **3 Credits/Units**
Prepares radiography students to protect themselves and others from exposure to radioactivity. Students examine the characteristics of radiation and hoe radiation affects cell biology. Students apply standards and guidelines for radiation exposure.

RADTEC 10526198 **Radiography Clinical 6** **2 Credits/Units**
This final clinical course requires students to integrate and apply all knowledge learned in previous courses to the production of high quality radiographs in the clinical setting. Students apply radiation protection and standard precautions in the production of radiographs in a health care setting while adhering to legal and ethical guidelines. Students are encouraged to demonstrate independent judgment in the performance of clinical competencies.

RADTEC 10526199 **Radiography Clinical 4** **3 Credits/Units**
This fourth level clinical course prepares radiography students to perform radiologic procedures on patients with supervision and direction. Students apply radiation protection and standard precautions in the production of radiographs in a health care setting while adhering to legal and ethical guidelines. Students are encouraged to demonstrate independent judgment in the performance of clinical competencies.

RADTEC 10526230 **Advanced Radiographic Imaging** **2 Credits/Units**
Explores the factors that impact image acquisition, display, archiving and retrieval. Guidelines for selecting exposure factors and evaluating images within digital systems are discussed. Principles of digital system quality assurance and maintenance are presented.

RADTEC 10526231 **Imaging Modalities** **2 Credits/Units**
Introduces radiography students to imaging modalities with an emphasis in computed tomography and cross-sectional anatomy.

RADTEC 10526291 **Radiography Clinical 5 Practice** **3 Credits/Units**
This three-credit, fifth level clinical practicum course prepares radiography students to perform radiologic procedures on patients with some supervision. Students apply radiation protection and standard precautions in the production of radiographs in a health care setting while adhering to legal and ethical guidelines. Students are encouraged to demonstrate independent judgment in the performance of clinical competencies.

RESPC 10515111 **Respiratory Survey** **3 Credits/Units**
Examines the role of the Respiratory Therapist within the healthcare community. Reviews the ethical, legal, and regulatory principles that guide practice across diverse populations. Introductory patient assessment and critical thinking processes used in the development of respiratory care plans are explored.

RESPC 10515112 **Respiratory Airway Management** **2 Credits/Units**
Focuses on adult respiratory critical care including management of mechanical ventilation and artificial airways.

RESPC 10515113 **Respiratory Life Support** **3 Credits/Units**
Focuses on adult respiratory critical care including management of mechanical ventilation.

RESPC 10515171 **Respiratory Therapeutics1** **3 Credits/Units**
Introduces the topics of medical gas administration, humidity, and aerosol therapy. The learner will apply physics, math and patient assessment concepts to oxygen, aerosol, and humidity therapy.

RESPC 10515172 **Respiratory Therapeutics 2** **3 Credits/Units**
Introduces therapeutic procedures including arterial puncture, bronchial hygiene, lung expansion therapy, and pulmonary rehabilitation.

Madison Area Technical College

RESPC 10515173 **Respiratory Pharmacology** **3 Credits/Units**
Examines basic pharmacology principles, drug dosage, and calculations. Medications for inhalation including mucolytics, bronchodilators, and anti-inflammatories. Also includes cardiac drugs, anesthetic drugs, neuromuscular blockers, and antimicrobials.

RESPC 10515174 **Respiratory/Cardiac Physiology** **3 Credits/Units**
Provides the student with an in-depth knowledge of the structure and function of the respiratory and circulatory systems necessary to function as a competent Respiratory Therapist.

RESPC 10515175 **Respiratory Clinical 1** **2 Credits/Units**
Introduces Respiratory Therapy practice in the hospital setting. Includes the development of skills such as basic therapeutics, patient assessment, medical record review, safety practices, patient interaction, and communication.

RESPC 10515176 **Respiratory Disease** **3 Credits/Units**
Exploration of signs, symptoms, causes, progression, and treatment of obstructive, restrictive and infectious diseases or disorders of the body that affect the respiratory system.

RESPC 10515178 **Respiratory Clinical 2** **3 Credits/Units**
Continued development of Respiratory Therapy clinical skills including respiratory therapeutics. Focuses on monitoring, analyzing and interpreting data to make appropriate modifications in patient care. This course includes the complete program competency list. At the completion of this clinical, learners must demonstrate competence in a minimum of 12 (required and/or simulated) competencies. The instructor may identify specific competencies to be addressed during this clinical.

RESPC 10515179 **Respiratory Clinical 3** **3 Credits/Units**
Continued development of Respiratory Therapy clinical skills including respiratory therapeutics. Focuses on monitoring, analyzing and interpreting data to make appropriate modifications in patient care. This course includes the complete program competency list. At the completion of this clinical, learners must demonstrate competence in a minimum of 19 (required and/or simulated) competencies. The instructor may identify specific competencies to be addressed during this clinical.

RESPC 10515180 **Respiratory Neo/Peds Care** **2 Credits/Units**
Provides a comprehensive orientation to the field of neonatal and pediatric respiratory care to include fetal development, birth, neonatal physiology, pulmonary dynamics, abnormal cardiopulmonary conditions, diseases, noninvasive and invasive therapeutic interventions.p

RESPC 10515181 **Respiratory/Cardio Diagnostics** **3 Credits/Units**
Advanced invasive and noninvasive diagnostic cardiopulmonary procedures including pulmonary function, hemodynamics and rescue medicine.

RESPC 10515182 **Respiratory Clinical 4** **3 Credits/Units**

Continued development of Respiratory Therapy clinical skills including respiratory therapeutics. Focuses on monitoring, analyzing and interpreting data to make appropriate modifications in patient care. This course includes the complete program competency list. At the completion of this clinical, learners must demonstrate competence in a minimum of 26 (required and/or simulated) competencies. The instructor may identify specific competencies to be addressed during this clinical.

RESPC 10515183 **Respiratory Clinical 5** **3 Credits/Units**
Focuses on the completion of respiratory therapy competencies and transition to employment. This course includes the complete program competency list. At the completion of this clinical learners must demonstrate competence in all of the required and/or simulated competencies. The instructor may identify specific competencies to be addressed during this clinical.

RESPC 10515184 **Neonatal Pediatric Resuscitation (NRP)** **1 Credits/Units**
Provides the student with the practice, theory and skills needed to provide advanced ventilation and resuscitation to infants and children.

RLEST 10194182 **Real Estate Law and Sales** **4 Credits/Units**
Designed to acquaint students with the field of real estate and Wisconsin real estate law. This course meets the educational requirements for the Wisconsin Real Estate Salesperson's examination. Technical reading skills with sufficient test scores for placement into Written Communications is required. This course is particularly oriented toward Wisconsin laws.

RLEST 10194185 **Real Estate Broker Management** **4 Credits/Units**
Building on Real Estate Law and Sales, Real Estate Brokerage looks at real estate business management. This course meets the educational requirements for the Real Estate Broker license in Wisconsin. Completion of Real Estate Law and Sales is required before taking this course. Technical reading skills with sufficient test scores for placement into Written Communications is required.

Madison Area Technical College

RLEST 10194195 **Real Estate Internship** **3 Credits/Units**
Requires work experience within an approved organization and the sponsorship of someone at the management level. Students are required to complete 140 hours of supervised work. The intern will complete a final work report at the completion of the semester while the sponsor will complete a job performance evaluation. The intern prepares a resume and develops a job strategy as a means of preparing for full-time work upon graduation.

SMLBUS 10145102 **Small Business Development** **3 Credits/Units**
Provides an introduction to prospective small business owners to the principles involved in planning and operation. Attention is given to small business appraisal and opportunities. Emphasis will be placed on factors that contribute to a successful business operation.

SMLBUS 10145105 **Operations Management** **3 Credits/Units**
Small business management strategies are applied to policies and operations. Included are applications to budgeting, marketing potentials, forecasting, layout, staffing, work flow, scheduling, and general business decisions. E-commerce is also explored.

SMLBUS 10145108 **Field Experience** **2 Credits/Units**
Employment in an approved occupation related to the student's future business plans is a prerequisite. Reports and discussion in class are coordinated with student employment. Employee appraisal, evaluation and harmony on the job will also be topics of discussion. The course requires a minimum of 144 hours of employment.

SMLBUS 10145117 **Introduction to Entrepreneurship** **3 Credits/Units**
Dreaming of starting your own business? This course is designed to inspire and nurture the entrepreneurial spirit. Students will examine the entrepreneurial process and characteristics of successful entrepreneurs, how to identify and evaluate entrepreneurial opportunities, and the critical elements of an effective business plan -- including management, marketing, and financial data. So whether you dream of a new business, or have a plan that needs further development, this course can help you reach your goals.

SMLBUS 10145120 **Global Entrepreneurship** **3 Credits/Units**
This course introduces an entrepreneurial mindset philosophy focused on the critical skills and personal qualities essential to a successful global business. Course Objectives: 1. To help students learn how to analyze opportunities for global entrepreneurship 2. To familiarize students with the issues and challenges facing global entrepreneurs. 3. Apply your existing entrepreneurial skills into a global context with an experience studying "global" organizations. 4. To familiarize students with the power of networks while working globally.

SMLBUS 10145123 **Leading Your Life with Emotional Intelligence** **3 Credits/Units**
Explore the history and research, as well as the different components of emotional intelligence that affect all aspects of your life. Learn how our emotions drive learning, decision-making, creativity, relationships and mental health. Develop strategies to help you build cooperative relationships, handle difficult situations, and create energy and enthusiasm to foster meaningful change in your personal and professional life. Create an action plan to improve and strengthen your emotional intelligence as well as experiment with techniques that facilitate working with others of varying emotional backgrounds and competency levels.

SMLBUS 10145125 **Artificial Intelligence (AI) for Small Business Marketing** **3 Credits/Units**

This course explores how artificial intelligence can boost marketing strategies for small businesses. Learn to leverage AI tools for customer insights, targeted advertising, personalized content, and data-driven decision-making to enhance brand visibility, drive sales, and streamline marketing efforts effectively.

SMLBUS 10145131 **Mastering Mindfulness: The Power of Living in the Present** **1 Credits/Units**
Students will develop skills to create closer connections with others, examine the importance of savoring in everyday life, learn the art of listening to build more fulfilling relationships and build techniques on how to live more mindfully.

SMLBUS 10145132 **Mastering Mindfulness: Pathway to Personal Development** **1 Credits/Units**
Students will use one's strengths to increase overall well-being, examine the connection between one's mind and body, design a plan to live a more meaningful, present life, and create positive habits that assist in coping with life's challenges.

SMLBUS 10145133 **Mastering Mindfulness: Strength and Self-Reflection** **1 Credits/Units**
Students will learn about the power of gratitude, create strategies to build an optimistic mindset, develop mechanisms to increase resilience, and discover the positive impact of forgiveness.

SMLBUS 10145190 **Small Business Etiquette and Professionalism** **3 Credits/Units**
This course focuses on the core knowledge and skills that are crucial in owning a small business or exhibiting the entrepreneurial mindset. This class will examine how to effectively work with others, as well as discover how to lead a team, resolve conflict, and learn about overall etiquette in the workplace. Students will conduct an orientation/training presentation, complete a business concept pitch and develop an elevator speech.

Madison Area Technical College

SOC 10809172 **Introduction to Diversity Studies** **3 Credits/Units**
This course introduces the study of diversity from a local to a global perspective using a holistic, interdisciplinary approach that encourages exploration and prepares students to work in a diverse environment. The course introduces basic diversity concepts, examines the impact of bias and power differentials among groups, explores the use of culturally responsive communication strategies, and compares forces that shape diversity in an international context.

SOC 10809196 **Introduction to Sociology** **3 Credits/Units**
Introduces students to the fundamental sociological concepts, including sociological perspectives, research methods, the significance of culture in society, and the socialization process. Other topics include deviance, the impact of groups on behavior, societal inequities, global changes, the role of social institutions, and social stratification.

SOC 10809197 **Contemporary American Society** **3 Credits/Units**
This is an interdisciplinary course covering issues that illustrate how our traditional institutions (such as family, education, media, the workplace, the economy and government) are being changed by global political, demographic, multicultural and technological trends. By exploring contemporary issues, students expand their use of critical-thinking skills.

SOC 20809204 **Sociology of Relationships and Families** **3 Credits/Units**
Examines sociological trends in relationships and family life, including the history and institutions of marriage and the family, choosing a partner, cohabitation, divorce, sexuality, fertility, and parenting. Topics cover effective communication with friends, family, coworkers, and partners; the impact of work and gender roles on relationships; and navigating challenges like stress and conflict. Students gain skills to form and maintain healthy relationships and a satisfying family life.

SOC 20809207 **Criminology** **3 Credits/Units**
An introduction to the sociological study of crime. Explores the social construction of crime, as well as crime trends, patterns, and typologies. Provides an in-depth overview of key theoretical approaches used to study, understand, and explain crime and criminal behavior. Analyzes theories of punishment and crime reduction strategies. Challenges assumptions about crime and examines the systemic inequities that are embedded in, and perpetuated by, crime policies and the criminal justice system.

SOC 20809209 **Sociology of Mental Health** **3 Credits/Units**
Explores mental health and illness from a sociological perspective. Examines the social construction of mental health and illness, the social forces that contribute to mental health, and sociological theories of mental illness. Discusses evolution of mental illness and mental health care in society. Analyzes the relationships between mental health and systemic social inequities.

SOC 20809252 **Race and Ethnicity in the U.S.** **3 Credits/Units**
Explores how social constructions of race and ethnicity shape U.S. society. Emphasis on sociohistorical origins of racial/ethnic inequities and common experiences of black, indigenous, and other racialized and marginalized groups. Assesses systemic racism and whiteness across social institutions. Examines structural inequalities, intersectionality, power relations, forms of racism, discrimination, privilege, and resistance. Discusses current policy debates and possible solutions to inequities.

SOC 20809253 **Sociology of Gender** **3 Credits/Units**

Examine the social construction of gender and its influence on identity, relationships, and life experiences. Students explore the importance and power of gender as well as how gender intersects with other social categories such as race, class, and sexuality. Topics include gender socialization, inequality, and social change. Students reflect on the cultural reinforcement of gender norms and the ways in which individuals and institutions challenge them.

SOC 20809255 **Introduction to LGBTQ+ Studies** **3 Credits/Units**
Introduction to LGBTQ+ Studies introduces students to historical and contemporary understandings of LGBTQ+ individuals and communities. Through the lens of interdisciplinary scholarship, students will explore topics such as identity formation, socialization, sexuality, cultural influences, health, politics, globalism, equity and inclusion, intersectionality, and activism.

SOC 20809277 **Couple Relationships** **1 Credits/Units**
Introduces students to empirical findings on relationship and marriage success and failure based on leading research and skills-based programs. Students learn to choose partners wisely, distinguish patterns that erode as well as protect romantic relationships, and gain research-based skills and strategies for strengthening a variety of relationships including friendships, family relationships, relationships with coworkers and classmates, romantic relationships and marriages.

SOC 20809291 **Technology and Society** **3 Credits/Units**
This sociology course introduces students to the field of Science and Technology Studies. Examines its history, the role of science and technology in our everyday lives, and applications of science and technology. Topics include AI, surveillance, medicine, the role of the market in science and technology, the role of data, and the ethical consequences of technology.

SOC 20809295 **Victimology** **3 Credits/Units**
An introduction to the sociological study of victimization. Studies victimization trends and patterns and examines the impact of victimization on individuals and society. Explores explanations of victimization, as well as policy implications and responses to victimization. Discusses evolution of victims' rights movement and strategies to empower victims. Challenges assumptions about victimization and looks at how social inequalities shape the perceptions, treatment, and experiences of victims.

Madison Area Technical College

SOCSCI 20809206 **Introduction to Women's Studies** **3 Credits/Units**
Women's status and roles in contemporary U.S. society are investigated by analyzing various disciplines and institutions such as the family, law, medicine, psychology, education, religion and the media as they impact upon the socialization process and the classification of people by gender.

SOCSCI 20809213 **Exploring Business Majors Seminar** **1 Credits/Units**
This seminar is for students considering transferring to study business at a four-year college or university. Explore various business disciplines, potential career paths, and transfer institutions in this course. Through discussions, workshops, and guest speakers, you'll gain the knowledge and confidence to make informed academic decisions about transferring to a business school at a four-year institution.

SOCSCI 20809215 **Education in a Pluralistic Society** **3 Credits/Units**
Students will engage and explore diverse educations of people in the United States, and beyond through lenses of privilege, oppression, and opportunity. With self-analysis, reflection, historical investigation, contemporary school programming, schools and society, and communication-skill building, students learn how to be culturally responsive to contexts of communities.

SOCSCI 20809230 **Statistics for the Social Sciences** **4 Credits/Units**
Students will develop statistical knowledge and skills through problem solving in the social sciences. Course components focus on measuring variables, measures of central tendencies, the utility of descriptive statistics, and introduction to inferential statistics and its predictive nature, the differences between samples and populations, and the increased capacity to read and display statistical information. Work is completed by hand and through statistical software.

SOCSCI 20809256 **International Perspectives on Gender and Women** **3 Credits/Units**
Explore diverse experiences of gender and women with an international focus. Interdisciplinary in nature, course topics and themes vary each semester. Opportunities to learn from, network with, and empower women as well as cultivate cultural sensitivity and intercultural communication - valuable skills in a global community and economy. Study abroad option available

SOCSCI 20809257 **Gender and Women's Studies-Study Abroad Experience** **1 Credits/Units**
Step outside the United States and explore the realities of gender and women in other countries and cultures. Through a combination of experiential learning, class discussions, and personal reflections, students will gain a deeper appreciation for the complex gender dynamics at work in our global community.

SOCSCI 20809269 **Energy, Environment and Society** **3 Credits/Units**
The U.S. experience is better understood within the context of the history of energy production, distribution, and consumption. Our world's future is also inextricably connected to our ability to equitably address the challenges we face with respect to energy. Analyses and solutions require an interdisciplinary and global approach. This course considers the physical, technical, economic, political, environmental, ethical and social contexts of the topic of energy, both nationally and globally.

SOCSCI 20809282 **Introduction to Hmong American Studies** **3 Credits/Units**
How do we teach Hmong Studies in a way that people of the world stop hurting each other? This community-centered course develops student understanding of the Hmong American story, situating ourselves in the present, and then dreaming of what Hmong American Studies can be to achieve the goal of honoring each person's humanity. Students will engage in creative and deeply personal stories that show how we are all connected in a larger Qhuab Ke (Hmong life song).

SOCSCI 20809290 **Introduction to African and Global Black Studies** **3 Credits/Units**
This course offers a wide range of topics in contemporary African studies and global Black thought. As an inter-disciplinary course, it develops critical thinking in literature, art, social and cultural issues, politics, ecology, African feminisms and queer theory, digital spaces, the diaspora, and Afro-futurism. Students engage with a variety of media through close reading, class discussion, and oral presentations.

SOCSCI 20809294 **Introduction to Data Analytics** **3 Credits/Units**
This course is an introduction to data analytics, designed for beginners. Topics include data collection and cleaning, handling missing data, exploratory data analysis, basic statistical methods, and techniques for visualization of data. Useful data science tools will be introduced, including Excel and SQL.

SOCSCI 20809809 **Honors - African Studies (2 credits)** **2 Credits/Units**
Allows a qualified Honors student to pursue a special concentration of study under the guidance of a faculty member. Requires completion of an Honors Project Contract. Credits 2. May be taken more than once. Pre-requisite: 1) minimum of 12 credits at Madison College, a 3.5 or higher GPA, and a previous or concurrent course with Honors Instructor; or 2) High School GPA of 3.5 or higher, and permission of Honors Instructor.

SOCSCI 20809908 **Honors-Ethnic Studies (3cr)** **3 Credits/Units**
Allows a qualified Honors student to pursue a special concentration of study under the guidance of a faculty member. Requires completion of an Honors Project Contract. Credits 3. May be taken more than once. Pre-requisite: 1) minimum of 12 credits at Madison College, a 3.5 or higher GPA, and a previous or concurrent course with Honors Instructor; or 2) High School GPA of 3.5 or higher, and permission of Honors Instructor.

Madison Area Technical College

SOCSCI 20809909 **Honors - African Studies (3 credits)** **3 Credits/Units**
Allows a qualified Honors student to pursue a special concentration of study under the guidance of a faculty member. Requires completion of an Honors Project Contract. Credits 3. May be taken more than once. Pre-requisite: 1) minimum of 12 credits at Madison College, a 3.5 or higher GPA, and a previous or concurrent course with Honors Instructor; or 2) High School GPA of 3.5 or higher, and permission of Honors Instructor.

SPANISH 20802211 **Spanish 1** **4 Credits/Units**
This course is for students beginning their study of Spanish. Students will learn to communicate at a basic level. We will work on the skills of speaking, writing, listening and reading. In this course the student will actively participate in conversations in Spanish as well as complete assignments and tasks that will help the student put into practice what they learn during the semester. In the process, students will gain a better understanding of and appreciation for people and cultures other than their own.

SPANISH 20802212 **Spanish 2** **4 Credits/Units**
This beginner's Spanish course is for students who have successfully completed Spanish 1 (or the equivalent). Students will learn to communicate with Spanish speakers at a basic level. We will work on the skills of speaking, writing, listening and reading. In this course students will actively participate in conversations in Spanish as well as complete assignments and tasks that will help the student put into practice what they learn during the semester. In the process, students will gain a better understanding of and appreciation for people and cultures other than their own.

SPANISH 20802213 **Spanish 3** **4 Credits/Units**
This intermediate Spanish course is for students who have successfully completed Spanish 2 (or the equivalent). The focus of the course is communication, while incorporating the four skills of listening, speaking, reading, and writing. Course activities are aimed at developing proficiency in all areas. You will also learn about the various cultures and traditions of the Spanish-speaking world. By the end of the class, you should be able to participate in extended conversations on many topics.

SPANISH 20802214 **Spanish 4** **4 Credits/Units**
This intermediate Spanish course is for students who have successfully completed Spanish 3 (or the equivalent). The focus of the course is communication, while incorporating the four skills of listening, speaking, reading, and writing. Course activities are aimed at developing proficiency in all areas. You will also learn about the various cultures and traditions of the Spanish-speaking world. By the end of the class, you should be able to participate in extended conversations on many topics.

SPANISH 20802215 **Spanish 5** **3 Credits/Units**
This course is for students who have completed 4 years of high school Spanish OR 4 semesters of college Spanish. Students will study advanced grammar with the objective of improving their ability to speak and write accurately in Spanish. Readings of cultural, historical and literary significance will be used to advance students' proficiency.

SPANISH 20802218 **Spanish 6** **3 Credits/Units**
This course is an in-depth study of important cultural-historical issues of the Hispanic world from pre-Columbian times to present day. Literary readings will be used to advance language proficiency with emphasis on advanced grammatical structures, writing, research, oral communication and analysis. Spanish 6 is offered through the study abroad program in Costa Rica.

SPEECH 10801198 **Speech** **3 Credits/Units**
Explores the fundamentals of effective oral presentation to small and large groups. Topic selection, audience analysis, methods of organization, research, supporting evidence, delivery techniques, active listening, and other essential elements of speaking successfully, form the basis of the course. Includes informative, persuasive, and occasion speech presentations. Audience requirements to be determined by individual colleges.

SPEECH 20810202 **Theory & Practice of Argumentation and Debate** **3 Credits/Units**
Introduces students to the principles, practices, theories and concepts of argumentation and debate. Students learn how to define an issue, build a case for a position through effective use of reasoning, defend one's position from counterarguments, and the etiquette of civil argument. Students will explore the nature of critical thinking, reasoned decision-making, advocacy skills, and the role that controversy plays in culture.

SPEECH 20810211 **Oral Interpretation** **3 Credits/Units**
Explores the possibilities offered by the full range of the human voice. Students will be challenged to create theatre in the minds of audience members through interpretation techniques. Concepts covered include selected projects in children's literature, prose, poetry, drama, and reader's theatre.

SURGT 10512125 **Introduction to Surgical Technology** **4 Credits/Units**
Provides the foundational knowledge of the occupational environment. Principles of sterilization and disinfection are learned. Surgical instruments are introduced. Preoperative patient care concepts are simulated. Lab practice is included.

SURGT 10512126 **Surgical Technology Fundamentals 1** **4 Credits/Units**
Focuses on preparing the patient and operating room for surgery. Principles of sterile technique are emphasized as the student moves into the scrub role. Lab practice is included.

SURGT 10512127 **Exploring Surgical Issues** **2 Credits/Units**
Explores a variety of issues related to surgical technology. Emphasis is placed is on becoming a professional member of the surgical team.

SURGT 10512128 **Surgical Technology Fundamentals 2** **4 Credits/Units**
Focuses on enhancing surgical technology skills while functioning as a sterile team member. Lab is included.

SURGT 10512129 **Surgical Pharmacology** **2 Credits/Units**
Basic study of drug classifications, care, and handling of drugs and solutions, application of mathematical principles in dosage calculations, terminology related to pharmacology, anesthesia, and drugs used in surgery.

SURGT 10512130 **Surgical Skills Application** **2 Credits/Units**
Provides a transition from the academic to the clinical setting. Learners integrate the surgical technologist skills as they apply to various surgical procedures.

SURGT 10512131 **Surgical Interventions 1** **4 Credits/Units**
Provides the foundational knowledge of surgical core and specialty procedures. Examines the pathophysiology, diagnostic interventions, health sciences, and surgical techniques for a variety of procedures.

SURGT 10512132 **Surgical Technology Clinical 1** **3 Credits/Units**
Apply basic surgical theories, principles, and procedural techniques in the operating room. Students begin to function as team members under the guidance of the instructor and authorized clinical personnel.

SURGT 10512133 **Surgical Technology Clinical 2** **3 Credits/Units**
Further experience in a clinical setting allows the student to continue to improve technical skills while accepting more responsibilities during surgical procedures.

SURGT 10512135 **Surgical Technology Clinical 3** **3 Credits/Units**
Further experience in a clinical setting allows the student to continue to improve technical skills while accepting more responsibilities during surgical procedures.

SURGT 10512136 **Surgical Technology Clinical 4** **3 Credits/Units**
During this clinical course the student will function relatively independently. Serves as a transition from a student perspective to an employee by utilizing advanced skills for an entry level Surgical Technologist.

SURGT 10512142 **Surgical Interventions 2** **4 Credits/Units**
Expands knowledge of core and specialty surgical procedures by incorporating pathophysiology, diagnostic interventions, health sciences, and surgical techniques.

URBNFOR 10001101 **Introduction to Arboriculture** **2 Credits/Units**
Examines career specialties and jobs within arboriculture. Provides an overview of tree, shrub, and turf establishment, development, and growth and factors that influence tree health. Introduction to use and maintenance of landscape equipment, tools, and facilities are also covered.

URBNFOR 10001102 **Plant Health Care Applicator** **2 Credits/Units**
The focus of this class is training to successfully pass the Wisconsin Department of Agriculture and Consumer Protection's pesticide applicator exam (which will be proctored in this class). Additionally, students will be familiarized with chemical handling, mixing, calibration, and application via field exercises.

URBNFOR 10001103 **Arboriculture** **2 Credits/Units**
Gain familiarity with techniques, tools, and pieces of equipment used in the management of trees and tree populations. This course serves to create an awareness of arboricultural careers as applied to commercial, municipal, and utility employers.

URBNFOR 10001105 **Tree Identification, Dendrology & Silvics** **3 Credits/Units**
Identify local trees using both common and scientific names, plus tree families in North America. Examine how trees interact with their environment and with one another at different places and over time. Builds on concepts of plant biology and ecology, with an emphasis on woody plant systematics and silvics.

URBNFOR 10001110 **Tree Biology** **2 Credits/Units**
An overview of the tree system with an emphasis on growth and development, compartmentalization of wounds, and how the tree adapts to the urban environment. Includes plant functions, physiology, adaptations, root systems, planting, and basic risk assessment. Diagnose health and structural abnormalities and follow the process to plant a tree.

URBNFOR 10001113 **Ornamental Plant Health Care for Arboriculture** **3 Credits/Units**
Classification and identification of ornamental plant insects, diseases, and abiotic agents, emphasizing their modes of plant damage. Diagnostics, damage assessment, sample preparation, and control strategies are introduced.

Madison Area Technical College

URBNFOR 10001118 **Landscape Plant Identification** **2 Credits/Units**
Introduction to identification of woody trees, shrubs and common plant life in the Madison area. Emphasizes methods for identifying large and small canopy trees and ecological characteristics. Introduces industry context.

URBNFOR 10001124 **Fundamentals of Aerial Tree Work** **3 Credits/Units**
Introduction to the basic safety requirements, equipment, and techniques employed by arborists who work aloft. Topics include applied rope-and-saddle and aerial lift usage, electrical hazard recognition, and common knots used in the industry.

URBNFOR 10001128 **Arboriculture Lab 1** **2 Credits/Units**
Gain introductory experience in tree pruning, rigging, hardware installation, electrical hazard awareness, aerial rescue, groundwork, and worksite management. Participate as a member of a working crew Climb trees and work aloft and/or perform ground-related activities. Build teamwork and communication skills.

URBNFOR 10001129 **Arboriculture Lab 2** **2 Credits/Units**
Builds on the knowledge and skills learned in Arboriculture Lab 1. Implement intermediate-level techniques used by arborists on tree crews. Participate as a member of a working crew, gain experience in aerial tree work, groundwork, tree pruning, rigging, hardware installation, electrical hazard awareness, groundwork, and worksite management.

URBNFOR 10001130 **Arboriculture Lab 3-Capstone** **2 Credits/Units**
Builds on knowledge and skills learned in Arboriculture Lab 2. Implement advanced-level techniques used by arborists who work on tree crews. Climb trees and work aloft. Perform ground-related activities. Oversee tree pruning, rigging, hardware installation, electrical hazard awareness, aerial rescue, and worksite management.

URBNFOR 10001133 **Equipment and Chainsaw Safety and Operation** **3 Credits/Units**
Personal protective equipment, safe operation, routine maintenance, and common cutting techniques and practices within the industry. Operate a variety of hand held power equipment (chain saws) and a variety of large machinery and industry equipment. Field exercises simulate tree removal operations.

URBNFOR 10001138 **Landscape Management 1** **3 Credits/Units**
Introduction to the planning, installation and maintenance process of living and non-living landscape materials and turf. Includes cost estimating.

URBNFOR 10001139 **Landscape Management 2** **3 Credits/Units**
Manage the planning, installation and maintenance of living and non-living landscape materials and turf. Perform plant health care treatments, including pest and insect management,

URBNFOR 10001149 **Ecological Basis for Natural Resources Management** **3 Credits/Units**
Introduction to the principles of ecology that underlie the practice of natural resource management. Discus factors operating to develop and maintain ecosystems and communities. Examine the application of important ecological principles in various natural resources management strategies. Develop skills in data collection, preparation of technical reports, use of library resources, use of computer models and critical thinking.

URBNFOR 10001173 **Urban Tree Maintenance** **2 Credits/Units**
The art and science of tree pruning are the primary objectives of this course. Young tree training and mature tree maintenance are introduced and practiced. Proper pruning cuts and techniques specified by ANSI-A300 are taught throughout this class.

URBNFOR 10001198 **Soil and Water Resources** **3 Credits/Units**
Analyze integrated concepts of soil and water resources at the landscape level. Examine physical, chemical, and biological interactions relating to watershed processes and response to land use and management

URBNFOR 10001199 **Forest, Fisheries, and Wildlife** **3 Credits/Units**
Integrated introduction to principles and practices of fisheries, forestry, and wildlife management, including production of goods and services while maintaining ecosystem integrity and functions; emphasis on contemporary issues.

VDV 50451590 **Voice Data Video Install Sem 6** **2 Credits/Units**
This course description is unavailable at this time. Please contact the center offering the course for more information.

VDV 50451591 **Voice Data Video Install Sem 1** **2 Credits/Units**
This course description is unavailable at this time. Please contact the center offering the course for more information.

VDV 50451592 **Voice Data Video Install Sem 2** **2 Credits/Units**
This course description is unavailable at this time. Please contact the center offering the course for more information.

VDV 50451593 **Voice Data Video Install Sem 3** **2 Credits/Units**
This course description is unavailable at this time. Please contact the center offering the course for more information.

VDV 50451594 **Voice Data Video Install Sem 4** **2 Credits/Units**
This course description is unavailable at this time. Please contact the center offering the course for more information.

VDV 50451595 **Voice Data Video Install Sem 5** **2 Credits/Units**
This course description is unavailable at this time. Please contact the center offering the course for more information.

VETTECH 10091102 **Intro to Veterinary Office Preparations and Procedures** **2 Credits/Units**
Explores the veterinary profession, common facility operations, office communication, and customer service strategies. Learn about the importance of accurate record maintenance and math calculations during care of patients and within the veterinary facility. Examine laws and governing agencies within the profession.

VETTECH 10091107 **Animal Disease 1** **2 Credits/Units**
Covers etiology, symptoms, transmission, diagnosis, prevention and control of diseases that are transmissible from animals to humans as well as animals to animals. Reporting requirements and handling of diagnostic samples involving high-exposure diseases are also discussed.

VETTECH 10091108 **Animal Disease 2** **2 Credits/Units**
Covers etiology, symptoms, transmission, diagnosis, prevention and control of common diseases in a wide variety of animal species. Toxic plants and other substances, as well as reporting and monitoring of federally regulated diseases will also be discussed.

VETTECH 10091109 **Pharmacology 1 - Animals** **2 Credits/Units**
Introduction to drugs and other substances used in veterinary medicine. Emphasizes drug usage, client education, measurement, administration, and safe storage of antiparasitics, antiinflammatories, antibiotics and nervous system drugs.

VETTECH 10091110 **Pharmacology 2** **2 Credits/Units**
Introduction to drugs and other substances used in veterinary medicine. Emphasizes drug usage, client education, measurement, administration, and safe storage of cardiac, respiratory, gastrointestinal, chemotherapy, ophthalmic and other drugs.

VETTECH 10091122 **Advanced Topics in Veterinary Medicine** **1 Credits/Units**

Current topics and advanced diagnostic procedures in veterinary medicine.

VETTECH 10091123 **Lab Animal Science 1** **2 Credits/Units**
This course includes the history of laboratory animal technology and laboratory animal uses. Emphasizes the Animal Welfare Act and other regulations pertaining to the care of laboratory animals. Covers laboratory animal husbandry in depth as students provide care and treatment for a colony of laboratory animals. Pre-requisites: 10-806-105, 10-091-170, 10-091-171 or concurrent enrollment in all of the above.

VETTECH 10091127 **Surgical Nursing 1** **3 Credits/Units**
This introductory course to surgical nursing covers surgical instruments, package prep, patient prep, anesthesia, monitoring and post-op care.

VETTECH 10091128 **Animal Nursing 1** **2 Credits/Units**
Designed to build nursing skills learned in 10-091-172, Animal Care & Management 2, with emphasis on large animal anesthetic techniques, surgical preparation and monitoring.

VETTECH 10091134 **Veterinary Assistant and Technician Preparation for Surgery** **1 Credits/Units**
Investigate surgical equipment and procedures; identify instruments, sterile technique processes, and instrument maintenance and operation. Examine anesthetic protocols and equipment. Prepares students for assisting with surgical care of animals.

VETTECH 10091137 **Veterinary Clinic Work Experience 1** **2 Credits/Units**
Integrate skills in an approved clinical setting of your choice to develop proficiency in animal nursing techniques and procedures. Final evaluation is done in partnership with the clinic and a Madison College instructor.

VETTECH 10091138 **Veterinary Clinic Work Experience 2** **2 Credits/Units**
Further integrate skills in an approved clinical setting of your choice to develop proficiency in animal nursing techniques and procedures. Final evaluation is done in partnership with the clinic and a Madison College instructor.

VETTECH 10091140 **Animal Anatomy & Physiology 1** **3 Credits/Units**
This course is a traditional systemic approach to anatomy and physiology, emphasizing terminology, identification, organization, location, and function of anatomical structures. Laboratory sessions are primarily concerned with gross comparative anatomy of common species with which veterinary technicians may work. Laboratory sessions are primarily concerned with gross comparative anatomy of common species with which veterinary technicians may work, including cats, dogs, ruminants, horses, and swine. The primary species used for reference are the domestic dog and cat, but other animal species are referred to for comparative purposes.

VETTECH 10091152 **Surgical Nursing 2** **3 Credits/Units**
This course focuses on the continuation of basic surgical nursing and anesthesia skills. Also covers basic dental prohylaxis, dental radiography, and cardiopulmonary resuscitation.

VETTECH 10091153 **Diagnostic Imaging** **3 Credits/Units**
Explores concepts in veterinary radiology, electrocardiography, ultrasound, endoscopy and other special imaging procedures and technologies.

VETTECH 10091161 **Veterinary Laboratory Procedures 1** **4 Credits/Units**
Collect, prepare, and analyze lab specimens from animals for use in generating a diagnosis; parasite, fungus, biochemical, and immunoassay tests. Integrate use of the microscope and a safe, quality driven specimen management process.

VETTECH 10091162 **Veterinary Laboratory Procedures 2** **4 Credits/Units**
Collect, prepare, and analyze lab specimens from animals for use in generating a diagnosis; urine, blood, blood serum, biopsies; examine the structure and function of animal cells. Integrate use of the microscope and a safe, quality driven specimen management process.

VETTECH 10091170 **Veterinary Medical Terminology** **2 Credits/Units**
Teaches acceptable veterinary medical terminology for common clinically recognizable diseases, operations, systems and procedures, as well as common medical signs, abbreviations and colloquial vocabulary.

VETTECH 10091171 **Animal Care and Management 1** **3 Credits/Units**
Focuses on handling and husbandry of the animals most commonly seen in veterinary medicine. Includes animal behavior, nutrition, and healthcare. Prerequisite: 10-091-170 Veterinary Medical Terminology, 10-091-102 Introduction to Veterinary Technician, 10-806-105 Principles of Animal Biology.

VETTECH 10091172 **Animal Care and Management 2** **3 Credits/Units**
Focuses on handling, medical nursing and disease processes of animals most commonly seen in veterinary medicine.

VIDAUD 10206111 **Story & Pre-Production** **2 Credits/Units**
This course explores the steps that take place before the production phase of creating a video or animation. Concept development, creating a shot list, drawing storyboards, and rendering an animatic are the main outcomes of this course. Examine which camera angles, movement, and shot composition best support the narrative.

VIDAUD 10206112 **Design for Video** **3 Credits/Units**
This foundational composition course is an introduction to the Adobe Creative Cloud software for use in the preparation of digital files for photography, video, design, and animation as it relates to digital projects using Photoshop, Illustrator, AfterEffects and Premier.

VIDAUD 10206128 **Compositing and Special Effects** **3 Credits/Units**
In this course, students will focus on Chroma keying, 3D, expressions, mattes, rotoscoping, motion tracking, particles, and advanced camera effects. Students will use After Effects and Motion to create movies for various delivery methods, using storyboarding and previsualization techniques prior to development.

VIDAUD 10206129 **Motion Design** **2 Credits/Units**
Learn animation and movement for time-based media, with an emphasis on communication design. Students use Adobe After Effects to integrate typography, illustration, video, and audio files to create industry relevant projects. Concept development, file management, character animation, transitions, and rendering for multiple output types will be covered in detail.

VIDAUD 10206130 **Video Production** **3 Credits/Units**
This introductory course covers camera techniques, live studio recording and team productions for studio and fieldwork. Students will edit their work to produce educational, promotional, and service videos. Recommended that students own a video-enabled camera. Please contact the course instructor prior to any camera purchase.

VIDAUD 10206131 **Audio Production** **3 Credits/Units**
This is an introductory sound production course in which students will learn to create clean, consistent, and intelligible audio recordings within a project driven curriculum. Students will learn sound principles, critical listening skills, and apply digital recording, editing, and mixing techniques to industry standards.

VIDAUD 10206140 **Video Audio Design Portfolio** **2 Credits/Units**
Students work to prepare a sample portfolio of their work for prospective employers. Students are supervised and assisted in the choice of samples, number of samples and design of portfolio. Lectures are given on job interviewing and job markets. Departmental approval of a finished portfolio is required for graduation.

Madison Area Technical College

VIDAUD 10206142 **Advanced Video Production** **3 Credits/Units**
Advanced Video Production is an advanced course in documentary, short film and motion graphics production. Building on the skills learned in Video Production, this course emphasizes advanced editing and video graphics.

VIDAUD 10206144 **Audio Internship** **1 Credits/Units**
The internship program is designed to provide students with an opportunity to relate current educational material from the college classroom to practical experience under the direction of professionals in extended work assignments.

VIDAUD 10206148 **Lighting Techniques for Video Production** **2 Credits/Units**
Students will acquire skills in the dynamics of hard and soft light, lighting terminology, color temperature of light, lighting for shape and texture, and operation of professional lighting equipment in the studio. Exercises will challenge students to create images in typical production situations including single and multi-person interviews, and live events.

VIDAUD 10206151 **Advanced Audio Production** **3 Credits/Units**
Students will gain skills in on-location and studio audio capture techniques and best practices, hardware and software interconnects and troubleshooting, audio post-production editing, sweetening, and processing, project management skills, and voice-over recording and processing.

VIDAUD 10206153 **Audio Project Management** **3 Credits/Units**
An introduction and review to small business and freelance practices specific to audio production. Course will review areas such as business setup, legal organization, pricing, time management, timekeeping, bidding, management of subcontractors and billing. This course will teach best industry practices in all of those areas and how to operate a small freelance business.

VIDAUD 10206162 **Video Project Management** **3 Credits/Units**
Learn practices specific to operation of a small visual arts business. Course will cover areas such as initial setup, legal organization, hourly or project pricing, time management, bidding, management of subcontractors and billing. This course teaches best industry practices in these areas for both corporate work and operation of a small freelance business.

VIDAUD 10206181 **Digital Color** **2 Credits/Units**
Color management impacts our imaging and color specialists develop a standard that permits us to control color workflow, from recording an image to manipulation (post-production) to final output. How do we make our devices all speak the same color language? Students will become aware of "special light sources" in our imaging paradigm and how to prepare for compensate for the color problems they can cause in our color imaging workflow.

VIDAUD 10206191 **Advanced Motion Design** **3 Credits/Units**
This course builds on and expands the skillsets acquired in the introductory Motion Design course. Students will learn about adding depth through 3D objects and layers. In addition, software toolsets will be expanded based on the latest techniques that are relevant in today's job market.

VIDAUD 10206194 **Event Production** **3 Credits/Units**
Production teams work to capture and produce simulated live events and concept, produce, and live-stream an original TV program. This course is the winner of multiple WI Broadcaster's Association Student Excellence Awards. Students learn live event planning, safety protocols, equipment management, production standards, and stage terminology from industry professionals.

VIDAUD 10206202 **Introduction to Music Production** **3 Credits/Units**
This course introduces concepts for live events and recorded musical performances. Students will learn in a hands-on, project-based curriculum. The course covers music fundamentals and modern technology, live sound reinforcement, stage and studio technology/terminology, MIDI and loop-based composing, music arranging, multi-track recording techniques, audio editing and sweetening, mixing and mastering fundamentals, and conducting artist sessions. Music business, management, and marketing will be discussed.

WEATHER 20806245 **Weather And Climate** **3 Credits/Units**
This course discusses nature and variability of temperature, precipitation, clouds and wind. Topics include storm systems, fronts, thunderstorms, tornadoes, hurricanes and their predictions, climate, climactic change, seasonal changes, air composition, global winds and special problems related to meteorology.

WEATHER 20806248 **Weather and Climate Laboratory** **1 Credits/Units**
This course introduces weather and climate via hands-on means with three areas of emphasis: weather map analysis, atmospheric physics experimentation, and making weather observations. Weather map analysis will revolve around the construction of surface weather maps from plotting, isopleth analysis, and interpretation. Atmospheric physics experiments will demonstrate aspects of how the atmosphere works. Making weather observations and discussing weather instrumentation (where those observations come from!) will be part of the course via an online weather journal.

Madison Area Technical College

WEATHER 20806250 Climate and Climate Change 3 Credits/Units
Climate and climate change are topics that have been widely discussed and scrutinized by scientists, businesses, and governments over the last few decades. This class will focus on the science of climate and how climate can change on multiple temporal and spatial scales, both naturally and by human activity. Topics discussed include how climate is described, what controls climate, climate cycles and feedbacks, how climate is modeled, and observations of climate change.

WEATHER 20806255 Aviation Meteorology 3 Credits/Units
This course introduces weather and climate concepts as applied to aviation. Fundamental weather behavior is explored via study of temperature, winds, clouds, precipitation, storm systems, etc. in the atmosphere as related to flight operations. This course includes case study analysis and examination of special hazards to aviation (e.g., turbulence, icing, etc.)

WELD 31442312 Oxy Fuel Welding and Thermal Cutting 2 Credits/Units
Perform manual and semi-automatic cutting and gouging using Oxy-Fuel and Plasma Arc Cutting processes. Course covers Oxy-Fuel Welding, braze welding, and soldering. Oxy-Fuel and Plasma Arc Cutting safety, Oxy-Fuel Welding safety, and proper handling of cylinders is addressed. Applications will be to English and Metric dimensions.

WELD 31442314 Arc Welding Theory 2 Credits/Units
Emphasizes welding theory, safe use of welding equipment, hand and power tools, oxy-fuel and plasma arc cutting, AWS joint, weld procedures, and defects and their causes. Electrical applications, effects of welding machine power sources, electrode selection and welding symbols will also be covered.

WELD 31442315 Basic Arc (SMAW) 2 Credits/Units
Students in this course will develop manipulative skills on all types of joints in the flat position using shielded metal arc welding electrodes on mild steel. Welding techniques used for structural, pipe and maintenance welding will be developed.

WELD 31442318 Gas Tungsten Arc Welding 1 (GTAW/TIG) 2 Credits/Units
Emphasis is placed on gas tungsten arc welding (TIG) techniques of carbon steel, stainless steel, and Aluminum. Development of skills and techniques on all types of joints in flat and horizontal positions.

WELD 31442320 Welding Occupational Development 1 Credits/Units
The Welding Occupational Development class is designed to help students entering the welding and metal fabrication industry in the development of the necessary documents, attitudes and insights needed to find and secure employment. The course includes resume building, cover letters and follow-up documents, job searches, interviewing, workplace ethics and responsible employee behaviors. The course also includes information on Apprenticeships, career and financial planning and exploration of local businesses. This course requires the use of computer technology and assignments will be submitted in both a hard copy and electronic format.

WELD 31442321 Arc Welding (SMAW) Vertical 2 Credits/Units
This course is a continuation of the Basic Shielded Metal Arc Welding course. Students work to develop manipulative welding skills on all types of joints in the vertical up and down positions, using E7018 and E6010 shielded metal arc welding electrodes on mild steel. Students will also develop welding techniques used for fillet and groove weld competencies to AWS D1.1 structural steel welding code.

WELD 31442322 Advanced Welding Techniques 2 Credits/Units

Develops manipulative skills on all types of joints in the overhead and/or pipe positions using E7018 & E6010 shielded metal arc welding electrodes on mild steel. Develop welding techniques used for fillet and groove weld competencies to AWS D1.1 structural steel welding code. Course also includes air carbon arc gouging (ACC), repairs, and other advanced welding processes and applications for related trades.

WELD 31442323 Basic Gas Metal Arc Welding (GMAW/MIG) 2 Credits/Units
Students in the Basic Gas Metal Arc Welding class concentrate on developing solid manipulative skills and a theoretical understanding of the GMAW and FCAW processes. Manual skills will be developed welding a variety of weld joints made of mild steel in the flat and horizontal positions. Theoretical understanding of the GMAW and FCAW welding processes will be gained through lecture, discussions, and tests/quizzes. Weld competencies using the GMAW process will be performed using Short Circuit, Globular, Axial Spray, and Pulsed Spray Modes of Metal Transfer, as well as one competency using the Flux-Core Arc Welding (FCAW) process. All welding competencies will be evaluated using American Welding Society (AWS) D1.1 Structural Steel Welding Code visual inspection criteria.

WELD 31442326 Flux Cored & Advanced Gas Metal Arc Welding (FCAW/GMAW) 2 Credits/Units
Continuation of development of skills and techniques on all types of joints in the flat, horizontal and vertical up and down positions, using short circuiting and spray arc transfer. Students will also learn flux-cored gas shielding and self shielding welding techniques. Mild steel, stainless steel and aluminum (1/16" to 1" thickness) are the metals used in welding joint assemblies, as per AWS code standards.

Madison Area Technical College

WELD 31442328 **Gas Tungsten Arc Welding 2 (GTAW/TIG)** **2 Credits/Units**

Students develop manipulative skills on all types of joints in the flat, horizontal, vertical, over head and pipe positions. Gas tungsten arc welding of stainless, aluminum, and steel welding techniques will be covered using 1/8" to 1/32" (11 ga to 20 ga) structural fabricated parts, pipe, repair welding and for other related trades, as per AWS and ASME welding code standards.

WELD 31442332 **Oxy-Fuel Cutting 1** **1 Credits/Units**

The Oxy-Fuel Cutting 1 course will introduce the students to manual cutting using a handheld torch. The students will also be introduced to the plasma cutting process. Oxy-fuel and plasma cutting safety with proper handling of cylinders is covered.

WELD 31442390 **Fundamentals of Metallurgy** **2 Credits/Units**

Introduction to metallurgy with emphasis on applications, selection, identification methods and alloy influences. Properties are studied utilizing testing, micro-structure interpretation and heat treatment processes. Tool steels, weld heat effects, failure analysis as well as machinability variations in cast iron, alloy steels and non-ferrous materials are covered in detail.