



Madison College Catalog

2017-2018

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Accounting

Program Number: 101011

Associate in Applied Science

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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
ACCTG 10101139	QuickBooks-Beginning	1	0.5-1
BUSADM 10102134	Business Organization, Management, and Ethics	3	3-0
COMPSOFT 10103133	Excel - Beginning	1	0.27-1.5
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
ACCTG 10101141	QuickBooks-Intermediate	1	0.5-1
FINANCE 10114130	Personal Finance	3	3-0
PSYCH 10809199	Psychology Of Human Relations	3	3-0
COMM 20810205	Small Group & Interpersonal Communications	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
BUSADM 10102160	Business Law 1	3	3-0
Fourth Semester			
ACCTG 10101122	Accounting 4-Intermediate	4	4-0
ACCTG 10101137	Computerized Accounting Applications	2	1.5-1
ACCTG 10101142	Accounting Capstone	3	2-2
ADMINPRF 10106190	Professional Development	1	1-0.5
ECON 10809195	Economics	3	3-0

Accounting Assistant

Program Number: 311011

A One Year Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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	Business Organization, Management, and Ethics	3	3-0
ACCTG 10101139	QuickBooks-Beginning	1	0.5-1
COMPSOFT 10103133	Excel - Beginning	1	0.27-1.5
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
ACCTG 10101141	QuickBooks-Intermediate	1	0.5-1
FINANCE 10114130	Personal Finance	3	3-0
ADMINPRF 10106190	Professional Development	1	1-0.5
COMM 10801196	Oral/Interpersonal Communication	3	3-0

Addiction Studies

Program Number: 305201

Less Than One Year Tech Diplom

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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 10520116	Group Work Skills	3	3-0
HUMSVC 10520117	Interviewing	3	3-0
HUMSVC 10520135	Issues in Alcohol and Other Drug Abuse	3	3-0
HUMSVC 10520136	Counseling Alcoholics and Other Drug Abusers	3	3-0
Second Semester			
Choose one of the following courses:			
(Note: Introduction to Psychology 20-809-231 is a pre-requisite to Abnormal Psychology 20-809-237.)			
HUMSVC 10520141	Introduction to Community Mental Health	3	3-0
PSYCH 20809237	Abnormal Psych	3	3-0
HUMSVC 10520142	Psychopharmacology	3	3-0
HUMSVC 10520150	AODA Special Populations	3	3-0
HUMSVC 10520157	Human Services Counseling Skills	3	3-0

Administrative Professional

Program Number: 101066

Associate in Applied Science

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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 10804123	Math with Business Applications	3	3-0
ADMINPRF 10106102	Introduction to Office Professions	1	1-0.5
ADMINPRF 10106107	Business Document Applications	3	1-4
ADMINPRF 10106139	Keyboard Skillbuilding	1	0.27-1.5
ADMINPRF 10106182	Information Technology Concepts	3	2-2
ADMINPRF 10106231	Business Presentations and Publications	3	1-4
Second Semester			
COMPSoft 10103165	Outlook	1	0.27-1.5
ADMINPRF 10106108	Proofreading And Editing	3	2-2
ADMINPRF 10106109	Business Spreadsheet Applications	3	1-4
ADMINPRF 10106133	Document Formatting	2	1-2
ADMINPRF 10106164	Customer Contact Skills	1	1-0.5
ADMINPRF 10106172	Administrative Office Management	3	2-2
ADMINPRF 10106240	Business Information Management	3	1-4
Third Semester			
COMM 10801196	Oral/Interpersonal Communication	3	3-0
SOC 10809172	Introduction to Diversity Studies	3	3-0
PSYCH 10809199	Psychology Of Human Relations	3	3-0
ACCTG 10101106	Accounting Fundamentals	3	3-0
COMPSoft 10103169	Collaboration Tools	1	0.27-1.5
ADMINPRF 10106106	Business Writing and Research	3	2-2
ADMINPRF 10106190	Professional Development	1	1-0.5
Fourth Semester			
ADMINPRF 10106134	Software Projects	2	0.5-3
ADMINPRF 10106186	Introduction to Project Management	2	0.5-3
ADMINPRF 10106194	Career Management	1	1-0.5
ADMINPRF 10106195	Internship - Administrative Professional & Medical Administrative Specialist Business-Related Selection (3 credits) (General) Elective	1	0-0
Business-Related Selection Courses			
Take one course from the following list:			
MKTG 10104114	Social Media Principles	3	3-0
EVTMG 10109102	Fundamentals Of Meeting Mgmt	3	3-0
BUSADM 10102134	Business Organization, Management, and Ethics	3	3-0
HRMGT 10116145	Introduction to Human Resources	3	3-0
MKTG 10104102	Marketing Principles	3	3-0

Advanced EMT

Program Number: 305316

Less Than One Year Tech Diplom

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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 30531360	Advanced Emergency Medical Technician	4	4-2

Agricultural Equipment Technology

Program Number: 100701

Associate in Applied Science

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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 10070176	Electrical Systems	5	3-4
AGMECH 10070181	Implements 1	4	2-0
WELD 10442126	Metal Repair Techniques	2	1-0
ENGLISH 10801195	Written Communication	3	3-0
MATH 10804107	College Mathematics	3	2-2
Second Semester			
AGMECH 10070178	Implements 2	3	1-4
AGMECH 10070183	Hydraulics	4	3-2
AGMECH 10070187	Occupational Experience 1 - Agricultural Equipment Technology Program	2	0-0
AGMECH 10070193	Air Conditioning	2	1-2
MKTG 10104104	Selling Principles	3	3-0
Third/Summer Session			
AGMECH 10070175	Power Transmissions	4	1-4
PHYSICS 10806139	Survey of Physics	3	1-4
Fourth Semester			
AGMECH 10070177	Fuel Systems	3	2-2
AGMECH 10070182	Accessories & Electronics	3	2-2
AGMECH 10070184	Hydraulics 2	3	1-4
AGMECH 10070188	Occupational Experience 2	2	0-0
ENGLISH 10801197	Technical Reporting	3	3-0
Fifth Semester			
AGMECH 10070150	Precision Farming (Ag Management Solutions)	1	0.5-1
AGMECH 10070191	Engine Repair Theory	3	1-4
AGMECH 10070195	Engine Repair	3	1-4
ECON 10809195	Economics	3	3-0
SOC 10809197	Contemporary Amer Society	3	3-0
PSYCH 10809199	Psychology Of Human Relations	3	3-0
Sixth/Summer Session			
AGMECH 10070189	Occupational Experience 3	2	0-0

Agriculture Systems Management

Program Number: 300903

Less Than One Year Tech Diplom

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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			
FARMBUS 10090381	Agriculture Business Management	3	3-0
FARMBUS 10090382	Principles of Sustainable Soil and Crop Management	3	3-0
Second Semester			
FARMBUS 10090385	Principles of Animal Science and Management	3	3-0
FARMBUS 10090386	Agriculture Finance and Economics	3	3-0

Animation

Program Number: 102071

An Associate in Applied Arts D

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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 (required)			
ANIM 10207101	Animation Industry Overview	1	0-2
First Semester			
ANIM 10207103	Basic Drawing for Concepting	2	0-4
ANIM 10207110	Animation 1	2	0-4
ANIM 10207111	Introduction To Digital 3D	2	0-4
ANIM 10207112	Photoshop for 3D and Concepting	2	0-4
ANIM 10207114	Modeling 1	2	0-4
ANIM 10207139	Design & Color for Concepting	2	0-4
ENGLISH 10801195	Written Communication	3	3-0
PSYCH 10809199	Psychology Of Human Relations	3	3-0
Second Semester			
ANIM 10207117	Figure Drawing for Concepting	3	0-6
ANIM 10207120	Animation 2	2	0-4
ANIM 10207122	Advanced Digital 3D	2	0-4
ANIM 10207150	Animation Concepts 1	3	0-6
ANIM 10207224	Modeling 2	2	0-4
COMM 10801196	Oral/Interpersonal Communication	3	3-0
MATH 10804107	College Mathematics	3	2-2
Third Semester			
ANIM 10207130	Digital Set Design 1	2	0-4
ANIM 10207131	Animation 3	2	0-4
ANIM 10207134	Modeling 3	2	0-4
ANIM 10207140	Advanced Animation Studio 1	2	0-4
ANIM 10207151	Animation Concepts 2	2	0-4
SPEECH 10801198	Speech	3	3-0
	Elective	3	
Fourth Semester			
ANIM 10207133	Digital Set Design 2	2	0-4
ANIM 10207141	Production Studio	3	0-6
ANIM 10207142	Animation Internship	2	0-0
ANIM 10207143	Animation Portfolio	2	0-4
ANIM 10207144	Advanced Animation Studio 2	2	0-4
PHILOS 10809166	Intro to Ethics: Theory & App	3	3-0
SOC 10809197	Contemporary Amer Society	3	3-0

Architectural Technology

Program Number: 106141

Associate in Applied Science

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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 10804114	College Technical Math 1B	2	2-0
ARCHT 10614111	Architectural Graphics 1	3	1-4
ARCHT 10614113	Intro To CAD-Architectural	3	1-4
ARCHT 10614121	Construction Materials - Architectural Technology Program	3	3-0
ARCHT 10614135	Building Codes	2	2-0
Second Semester			
MATH 10804116	College Technical Math 2	4	4-0
PHYSICS 10806154	General Physics 1	4	3-2
ARCHT 10614112	Architectural Graphics 2	3	1-4
ARCHT 10614115	Introduction to Revit	3	2-2
ARCHT 10614118	Design Communications	2	1-2
ARCHT 10614122	Revit MEP	2	1-2
Third Semester			
PSYCH 10809199	Psychology Of Human Relations	3	3-0
ARCHT 10614119	Digital Architectural Rendering	1	1-0
ARCHT 10614123	Electrical and Mechanical Systems	4	4-0
ARCHT 10614152	Introduction to Sustainable Design and LEED	2	2-0
ARCHT 10614154	Site Design	3	2-2
ARCHT 10614155	Advanced Revit	2	1-2
ARCHT 10614178	Building Structures	4	4-0
Fourth Semester			
ENGLISH 10801197	Technical Reporting	3	3-0
PHILOS 10809166	Intro to Ethics: Theory & App	3	3-0
ARCHT 10614114	Advanced CAD	2	1-2
ARCHT 10614120	Professional Practice	2	2-0
ARCHT 10614142	Architectural Detailing	2	1-2
ARCHT 10614145	Architectural Design Studio	4	3-2
ARCHT 10614194	Portfolio Preparation for Architectural	1	1-0

Architectural Technology

Program Number: 106141-TR

Associate in Applied Science

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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 10614111	Architectural Graphics 1	3	1-4
ARCHT 10614113	Intro To CAD-Architectural	3	1-4
ARCHT 10614121	Construction Materials - Architectural Technology Program	3	3-0
ARCHT 10614135	Building Codes	2	2-0
ENGLISH 20801201	English 1	3	3-0
MATH 20804212	College Algebra	3	2-2
Second Semester			
ARCHT 10614112	Architectural Graphics 2	3	1-4
ARCHT 10614115	Introduction to Revit	3	2-2
ARCHT 10614118	Design Communications	2	1-2
ARCHT 10614122	Revit MEP	2	1-2
ENGLISH 20801202	English 2	3	3-0
MATH 20804213	Trigonometry	3	2-2
PHYSICS 20806220	Physics of Everyday Life	3	3-0
Third Semester			
ARCHT 10614101	Architectural Theory 1	3	2-2
ARCHT 10614123	Electrical and Mechanical Systems	4	4-0
ARCHT 10614155	Advanced Revit	2	1-2
ARCHT 10614154	Site Design	3	2-2
ARCHT 10614178	Mechanics/Strength of Materials	4	4-0
ARCHT 10614193	Job Orientation	1	1-0
Fourth Semester			
ARCHT 10614100	Introduction to Architecture	3	3-0
ARCHT 10614114	Advanced CAD	2	1-2
ARCHT 10614132	Building Estimating	2	2-0
ARCHT 10614142	Architectural Detailing	2	1-2
ARCHT 10614145	Architectural Design Studio	4	3-2
ARCHT 10614194	Portfolio Preparation for Architectural	1	1-0
PHILOS 10809166	Intro to Ethics: Theory & App	3	3-0
PSYCH 20809231	Intro Psychology	3	3-0

Associate Degree Nursing (R.N.)

Program Number: 105431

Associate in Applied Science

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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 Certification			
<i>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.</i>			
NRSAD 30543300	Nursing Assistant	3	4-2.66
General Education Courses			
<i>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. 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.</i>			
ENGLISH 20801201	English 1	3	3-0
SPEECH 10801198	Speech	3	3-0
BIOLOGY 20806207	Anatomy and Physiology 1	4	3-2
BIOLOGY 20806208	Anatomy and Physiology 2	4	3-2
<i>Choose from Microbiology or General Microbiology:</i>			
BIOLOGY 20806273	Microbiology-University Medical	5	3-4
BIOLOGY 20806274	General Microbiology	5	3-4
SOC 20809203	Intro Sociology	3	3-0
PSYCH 20809231	Intro Psychology	3	3-0
PSYCH 20809233	Developmental Psychology	3	3-0
	Elective	5	
First Semester			
NRSAD 10543101	Nursing Fundamentals - Associate Degree Nursing Program	2	2-0
NRSAD 10543102	Nursing Skills - Associate Degree Nursing Program	3	0-6
NRSAD 10543103	Nursing Pharmacology - Associate Degree Nursing Program	2	2-0
NRSAD 10543104	Nsg: Intro Clinical Practice	2	0-0
Second Semester			
NRSAD 10543105	Nursing Health Alterations - Associate Degree Nursing Program	3	3-0
NRSAD 10543106	Nursing Health Promotion - Associate Degree Nursing Program	3	3-0
NRSAD 10543107	Nursing: Clinical Care Across Lifespan	2	0-0
NRSAD 10543108	Nursing: Introduction to Clinical Care Management	2	0-0
Third Semester			
NRSAD 10543109	Nursing: Complex Health Alterations 1	3	3-0
NRSAD 10543110	Nursing: Mental Health Community Concepts	2	2-0

NRSAD 10543111	Nursing: Intermediate Clinical Practice	3	0-0
NRSAD 10543112	Nursing Advanced Skills	1	0-2
Fourth Semester			
NRSAD 10543113	Nursing: Complex Health Alteratations 2	3	3-0
NRSAD 10543114	Nursing: Management and Professional Concepts	2	2-0
NRSAD 10543115	Nursing: Advanced Clinical Practice	3	0-0
NRSAD 10543116	Nursing Clinical Transition	2	0-0

Associate Degree Nursing (R.N.)

Program Number: 105431-PA

Associate in Applied Science

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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			
<i>The following courses must be completed prior to (or be currently in progress with last course) for application for the Nursing Completion Paramedic to ADN courses:</i>			
ENGLISH 20801201	English 1	3	3-0
BIOLOGY 20806207	Anatomy and Physiology 1	4	3-2
BIOLOGY 20806208	Anatomy and Physiology 2	4	3-2
PSYCH 20809231	Intro Psychology	3	3-0
PSYCH 20809233	Developmental Psychology	3	3-0
<i>The following courses are recommended to be completed prior to enrolling in the nursing bridge courses:</i>			
SPEECH 10801198	Speech	3	3-0
<i>Choose from Microbiology or General Microbiology:</i>			
BIOLOGY 20806273	Microbiology-University Medical	5	3-4
BIOLOGY 20806274	General Microbiology	5	3-4
SOC 20809203	Intro Sociology	3	3-0
	Elective	5	
Paramedic Bridge Courses and Licensure Requirements			
Second Semester			
NRSAD 10543127	Paramedic to AD Theory 1	3	3-0
NRSAD 10543128	Paramedic to AD Theory 2	3	3-0
NRSAD 10543129	Paramedic to AD Skills	2	0-4
NRSAD 10543130	Paramedic to RN Clinical	2	0-0
Associate Degree Nursing 2nd Year Requirements			
Third Semester			
NRSAD 10543109	Nursing: Complex Health Alterations 1	3	3-0
NRSAD 10543110	Nursing: Mental Health Community Concepts	2	2-0
NRSAD 10543111	Nursing: Intermediate Clinical Practice	3	0-0
NRSAD 10543112	Nursing Advanced Skills	1	0-2
Fourth Semester			
NRSAD 10543113	Nursing: Complex Health Alterations 2	3	3-0
NRSAD 10543114	Nursing: Management and Professional Concepts	2	2-0
NRSAD 10543115	Nursing: Advanced Clinical Practice	3	0-0
NRSAD 10543116	Nursing Clinical Transition	2	0-0

Associate Degree Nursing (R.N.)

Program Number: 105431-PN

Associate in Applied Science

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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			
ENGLISH 20801201	English 1	3	3-0
SPEECH 10801198	Speech	3	3-0
SOC 20809203	Intro Sociology	3	3-0
BIOLOGY 20806207	Anatomy and Physiology 1	4	3-2
BIOLOGY 20806208	Anatomy and Physiology 2	4	3-2
<i>Choose from Microbiology or General Microbiology:</i>			
BIOLOGY 20806273	Microbiology-University Medical	5	3-4
BIOLOGY 20806274	General Microbiology	5	3-4
PSYCH 20809231	Intro Psychology	3	3-0
PSYCH 20809233	Developmental Psychology	3	3-0
	Elective	5	
Practical Nursing and Licensure Requirements			
First Semester			
NRSAD 31543301	Nursing Fundamentals - Practical Nursing Program	2	4-0
NRSAD 31543302	Nursing Skills - Practical Nursing Program	3	0-6
NRSAD 31543303	Nursing Pharmacology - Practical Nursing Program	2	4-0
NRSAD 31543304	Nursing: Intro to Clinical Practice	2	0-0
Second Semester			
NRSAD 31543305	Nursing Health Alterations - Practical Nursing Program	3	6-0
NRSAD 31543306	Nursing Health Promotion - Practical Nursing Program	3	6-0
NRSAD 31543307	Nursing: Clinical Care Across the Lifespan	2	0-0
NRSAD 31543308	Nursing: Intro to Clinical Care Management	2	0-0
Prior to the Start of Third Semester Courses			
NRSAD 10543164	Orientation Associate Degree Nursing	3	2-2
Third Semester			
NRSAD 10543109	Nursing: Complex Health Alterations 1	3	3-0
NRSAD 10543110	Nursing: Mental Health Community Concepts	2	2-0
NRSAD 10543111	Nursing: Intermediate Clinical Practice	3	0-0
NRSAD 10543112	Nursing Advanced Skills	1	0-2
Fourth Semester			
NRSAD 10543113	Nursing: Complex Health Alterations 2	3	3-0
NRSAD 10543114	Nursing: Management and Professional Concepts	2	2-0
NRSAD 10543115	Nursing: Advanced Clinical Practice	3	0-0
NRSAD 10543116	Nursing Clinical Transition	2	0-0

Auto Collision Repair & Refinishing Technician

Program Number: 324051

A Two Year Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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
AUTOBODY 32405340	Collision Electrical Fundamentals	2	2-2
SMLBUS 10145189	Customer Relations	2	2-0
Second Semester			
AUTOBODY 32405303	Non-Structural Panel Repair & Glass Servicing	5	0-10
AUTOBODY 32405304	Refinishing 2/Trim & Hardware	5	0-10
AUTOBODY 32405341	Collision Mechanical Systems	2	2-2
MATH 31804379	Vocational Math 1	1	2-0
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
PHYSICS 31806363	Science 1	2	2-2
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
AUTOBODY 31405374	Collision Occup Orient	2	3-0

Auto Collision Repair and Refinish Technician

Program Number: 314051

A One Year Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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 32405340	Collision Electrical Fundamentals	2	2-2
AUTOBODY 32405361	Collision Repair/Refinishing Theory 1	3	6-0
SMLBUS 10145189	Customer Relations	2	2-0
Second Semester			
AUTOBODY 32405303	Non-Structural Panel Repair & Glass Servicing	5	0-10
AUTOBODY 32405304	Refinishing 2/Trim & Hardware	5	0-10
AUTOBODY 32405341	Collision Mechanical Systems	2	2-2
AUTOBODY 32405363	Collision Repair and Refinishing Theory 2	3	6-0
MATH 31804379	Vocational Math 1	1	2-0

Automated Manufacturing Systems Technology

Program Number: 106283

Associate in Applied Science

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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 10804107	College Mathematics	3	2-2
INDMANUF 10623300	Fluid Power 1 for Industry	1	0-2
INDMANUF 10623301	Fluid Power 2 for Industry	2	0-4
INDMANUF 10623310	Mechanisms for Industry 1	1	0-2
INDMANUF 10623408	Computer-Assisted Design-2D	2	0.5-3
AUTMFG 10628170	Robotics for Industrial Automation 1	1	0-2
AUTMFG 10628401	PLCs for Industrial Automation 1	1	0.5-1
AUTMFG 10628420	Introduction to Logic & Troubleshooting	1	0-2
Second Semester			
ECON 10809195	Economics	3	3-0
COMPSOFT 10103186	MS (Microsoft) Project	2	0.5-3
MACHT 10420126	Manufacturing Materials	2	1-2
IND MECH 10462320	DC/AC Circuits	3	0-6
INDMANUF 10623100	Safety for Industry	1	0-2
INDMANUF 10623200	Interpreting Engineering Drawings	2	0-4
AUTMFG 10628168	Robotics for Industrial Automation 2	2	0.5-3
AUTMFG 10628302	Integration Introduction	2	0-4
AUTMFG 10628402	PLCs for Industrial Automation 2	1	0.5-1
Third Semester			
ENGLISH 10801197	Technical Reporting	3	3-0
PSYCH 10809199	Psychology Of Human Relations	3	3-0
IND MECH 10462322	Industrial Electricity and Controls	4	0-8
INDMANUF 10623409	Computer-Assisted Design-3D	2	0.5-3
AUTMFG 10628403	Programmable Automation Controller 1	2	1-2
AUTMFG 10628450	Integration of Mechanisms and Controls 1	4	0-8
Fourth Semester			
PHILOS 10809166	Intro to Ethics: Theory & App	3	3-0
SOC 10809197	Contemporary American Society	3	3-0
AUTMFG 10628172	Vision for Robotics in Industrial Automation	2	0-4
AUTMFG 10628404	Programmable Automation Controller 2	2	1-2
AUTMFG 10628451	Integration of Mechanisms and Controls 2	4	0.5-7
AUTMFG 10628500	Introduction to HMI and SCADA Development	2	0-4

Automotive Technician

Program Number: 324042

A Two Year Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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 10602125	Electrical and Electronics Systems 1	2	2-0
AUTOTEC 10602127	Electrical and Electronics Systems 2	2	1.5-3
AUTOMECH 32404335	Powertrain Management Systems - Automotive Technician Program	5	2-8
AUTOMECH 32404340	Service Repair Procedures - Automotive Technician Program	5	3-7
WELD 10442126	Metal Repair Techniques	2	1-0
COLLSUCC 10890101	College Success and Study Skills 1cr	1	1-0
Second Semester			
AUTOMECH 32404318	Automotive Heating & Air Conditioning	2	2-2
AUTOMECH 32404339	Braking Systems	5	2.5-7.5
AUTOMECH 32404341	Suspension & Steering Systems	5	2.5-7.5
MATH 31804379	Vocational Math 1	1	2-0
Third Semester			
AUTOMECH 32404355	Automatic Transmissions	5	2-8
AUTOMECH 32404356	Manual Drivetrain & Axles	5	2-8
AUTOTEC 10602115	Hybrid and Alternative Fueled Vehicles	2	1-2
SMLBUS 10145189	Customer Relations	2	2-0
PHYSICS 31806363	Science 1	2	2-2
Fourth Semester			
AUTOMECH 32404316	Accessories - Automotive Technician Program	2	2-2
AUTOMECH 32404336	Engine Rebuilding - Automotive Technician Program	5	3-7
AUTOMECH 32404357	Driveability Diagnosis	5	3-7

Automotive Technology- Comprehensive

Program Number: 106026

Associate in Applied Science

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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 10602102	Service Repair Procedures	4	1-6
AUTOTEC 10602125	Electrical and Electronics Systems 1	2	2-0
AUTOTEC 10602127	Electrical and Electronics Systems 2	2	1.5-3
AUTOTEC 10602156	Comfort Control Systems	2	1-2
AUTOTEC 10602166	Powertrain Management Technology	5	2-4
MATH 10804134	Mathematical Reasoning	3	2-2
Second Semester			
WELD 10442126	Metal Repair Techniques	2	1-0
AUTOTEC 10602157	Technical Braking Systems	4	1-4
AUTOTEC 10602158	Service Management	2	1-2
AUTOTEC 10602163	Technical Suspension & Steering	4	1-4
ENGLISH 10801195	Written Communication	3	3-0
PSYCH 10809199	Psychology Of Human Relations	3	3-0
Third Semester			
AUTOTEC 10602153	Manual Drivetrains & Axles	4	2-4
AUTOTEC 10602154	Fluid Power Transmissions	5	1-6
AUTOTEC 10602162	Automobile Accessories	2	1-2
PHYSICS 10806139	Survey of Physics	3	1-4
ECON 10809195	Economics	3	3-0
Fourth Semester			
AUTOTEC 10602115	Hybrid and Alternative Fueled Vehicles	2	1-2
AUTOTEC 10602150	Internal Combustion Engines	4	2-0
AUTOTEC 10602152	Driveability Analysis	4	2-0
ENGLISH 10801197	Technical Reporting	3	3-0
CHEM 10806134	General Chemistry	4	3-2

Baking & Decorative Arts

Program Number: 313141

A One Year Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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
<i>Baking & Decorative Arts Students: Choose one of the Track Options and complete all listed courses required/listed for that track option to earn the degree.</i>			
Baking Track Option			
Prior to Start of Program			
CUL ARTS 10316101	Principles Of Sanitation	1	1-0
First Semester			
BAKING 31314302	Yeast Breads	4	0-8
BAKING 31314309	Baking Principles	2	4-0
BAKING 31314315	Intro to Baking	3	0-6
BAKING 31314325	Pastries	3	0-6
BAKING 31314375	Experimental Baking	1	0-2
Second Semester			
BAKING 31314306	Bakery Retail	1	0-2
BAKING 31314335	Specialty Cakes & Miniatures	3	0-6
BAKING 31314345	Artisan Breads	4	0-8
BAKING 31314355	Bakery Production	3	0-6
BAKING 31314389	Baking Seminar	1	2-0
Decorating Track Option			
Prior to Start of Program			
CUL ARTS 10316101	Principles Of Sanitation	1	1-0
First Semester			
BAKING 31314305	Chocolate	2	0-4
BAKING 31314306	Bakery Retail	1	0-2
BAKING 31314309	Baking Principles	2	4-0
BAKING 31314335	Specialty Cakes & Miniatures	3	0-6
BAKING 31314375	Experimental Baking	1	0-2
BAKING 31314384	Cake Decorating	3	0-6
BAKING 31314389	Baking Seminar	1	2-0
Second Semester			
BAKING 31314372	Chocolate & Sugar Confections	1	0-2
BAKING 31314380	Finishing	3	0-6
BAKING 31314386	Plated Desserts	2	0-4
BAKING 31314387	Fondant and Gum Paste	3	0-6
BAKING 31314388	Advanced Cake Decorating	3	0-6

Blended Track Option (Combination of Baking and Decorating)

Prior to Start of Program			
CUL ARTS 10316101	Principles Of Sanitation	1	1-0
First Semester			
BAKING 31314302	Yeast Breads	4	0-8
BAKING 31314309	Baking Principles	2	4-0
BAKING 31314335	Specialty Cakes & Miniatures	3	0-6
BAKING 31314375	Experimental Baking	1	0-2
BAKING 31314384	Cake Decorating	3	0-6
Second Semester			
BAKING 31314306	Bakery Retail	1	0-2
BAKING 31314345	Artisan Breads	4	0-8
BAKING 31314372	Chocolate & Sugar Confections	1	0-2
BAKING 31314380	Finishing	3	0-6
BAKING 31314386	Plated Desserts	2	0-4
BAKING 31314389	Baking Seminar	1	2-0

Basic Early Childhood Educator

Program Number: 303078

Embedded Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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 10307178	ECE: Art, Music & Lang Arts	3	2-2
EARLYCHL 10307188	ECE: Guiding Child Behavior	3	2-2

Basic Industrial Power

Program Number: 304626

Embedded Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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			
INDMANUF 10623300	Fluid Power 1 for Industry	1	0-2
INDMANUF 10623100	Safety for Industry	1	0-2
INDMANUF 10623200	Interpreting Engineering Drawings	2	0-4
MATH 31804381	Machine Tool Math 1	2	4-0
MATH 31804382	Machine Tool Math 2	1	2-0
SMLBUS 10145189	Customer Relations	2	2-0

Biotechnology Intensive Post-baccalaureate

Program Number: 900072CERT

Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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.

Courses		Credits/Units	Hrs/Week
			LEC-LAB
BIOTECH 10007103	Biotechnology Laboratory Skills for a Regulated Workplace	3	1-0
BIOTECH 10007122	Protein Bioseparations Methods	3	1-0
BIOTECH 10007123	Cell Culturing	3	1-0
BIOTECH 10007124	Molecular Biology 1	3	1-0
BIOTECH 10007136	Laboratory Math for Biotechnology	1	0-2
BUSADM 10102134	Business Organization, Management, and Ethics	2	3-0

Biotechnology Laboratory Support Assistant

Program Number: 300071

Embedded Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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.

Courses		Credits/Units	Hrs/Week
			LEC-LAB
BIOTECH 10007103	Biotechnology Laboratory Skills for a Regulated Workplace	3	1-0
BIOTECH 10007105	Bioprocess Technology	3	1-0
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

Biotechnology Laboratory Technician

Program Number: 100072

Associate in Applied Science

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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	1-0
BIOTECH 10007108	Hazardous Materials - Biotechnology	1	0.5-1
BIOTECH 10007111	Biotechnology Career Seminar	1	1-0
BIOTECH 10007115	General Cell Biology	4	3-0
BIOTECH 10007136	Laboratory Math for Biotechnology	1	0-2
ENGLISH 10801195	Written Communication	3	3-0
<i>Choose from one of the following courses:</i>			
CHEM 10806127	Chemistry 1	4	3-2
CHEM 20806201	General, Organic & Biological Chemistry	5	4-2
Second Semester			
BIOTECH 10007104	Chromatography Techniques	3	1-0
BIOTECH 10007105	Bioprocess Technology	3	1-0
BIOTECH 10007110	Biotechnology Applications	1	1-0
BIOTECH 10007174	Applied Microbiology	4	2-4
COMM 10801196	Oral/Interpersonal Communication	3	3-0
<i>Choose from one of the following courses:</i>			
CHEM 10806129	Chemistry 2	4	3-2
CHEM 20806216	Chemistry for Biotechnology	3	2-2
Third Semester			
BIOTECH 10007122	Protein Bioseparations Methods	3	1-0
BIOTECH 10007123	Cell Culturing	3	1-0
BIOTECH 10007124	Molecular Biology 1	3	1-0
BIOTECH 10007152	Making Biotech Products in a Quality Environment	2	0-4
SOC 10809197	Contemporary Amer Society	3	3-0
PSYCH 10809199	Psychology Of Human Relations	3	3-0
BIOTECH 10007112	Biotechnology Employment Skills	1	1-0
Fourth Semester			
BIOTECH 10007121	Applied Biochemistry	3	2-0
BIOTECH 10007125	Research Methods in Molecular Biology	3	1-0
BIOTECH 10007126	Occupational Work Experience	3	0-0
ECON 10809195	Economics	3	3-0
	Elective	3	
<i>Recommended Electives</i>			
BIOTECH 10007137	Selected Topics in HPLC	1	0-2.22
BIOTECH 10007155	Quality Regulations and Standards for Biotechnology	2	2-0
BIOLOGY 20806203	Introductory Zoology	5	4-2

Biotechnology Post-baccalaureate Certificate

Program Number: 900071CERT

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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	1-0
Courses			
<i>In addition, participants choose a minimum of 12 additional credits from the following list:</i>			
BIOTECH 10007105	Bioprocess Technology	3	1-0
BIOTECH 10007104	Chromatography Techniques	3	1-0
BIOTECH 10007124	Molecular Biology 1	3	1-0
BIOTECH 10007122	Protein Bioseparations Methods	3	1-0
BIOTECH 10007123	Cell Culturing	3	1-0
BIOTECH 10007174	Applied Microbiology	4	2-4
BIOTECH 10007152	Making Biotech Products in a Quality Environment	2	0-4
BIOTECH 10007155	Quality Regulations and Standards for Biotechnology	2	2-0
BUSADM 10102134	Business Organization, Management, and Ethics	2	3-0
BIOTECH 10007125	Research Methods in Molecular Biology	3	1-0
BIOTECH 10007116	Introduction to Human Stem Cell Methods	3	0-6
BIOTECH 10007118	Introduction to Human Stem Cell Concepts	1	1-0
BIOTECH 10007117	Advanced Human Stem Cell Methods	3	0-6
BIOTECH 10007119	Advanced Human Stem Cell Concepts	1	1-0
BIOTECH 10007121	Applied Biochemistry	3	2-0

Bricklaying/Masonry Apprentice

Program Number: 504081

Apprenticeship Completion

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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 50408510	Tech Brick Sem 1	2	3-1
Second Semester			
BRCKMSN 50408511	Tech Brick Sem 2	2	3-1
Third Semester			
BRCKMSN 50408512	Tech Brick Sem 3	2	3-1
Fourth Semester			
BRCKMSN 50408513	Tech Brick Sem 4	2	3-1
Fifth Semester			
BRCKMSN 50408514	Tech Brick Sem 5	2	3-1
Sixth Semester			
BRCKMSN 50408515	Tech Brick Sem 6	2	3-1

Business Management

Program Number: 101023

Associate in Applied Science

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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	Business Organization, Management, and Ethics	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 10102135	Project Management - Fundamentals	3	3-0
COMPSOFT 10103133	Excel - Beginning	1	0.27-1.5
COMPSOFT 10103139	Excel - Intermediate	1	0.27-1.5
Third Semester			
BUSADM 10102114	Business Communication	3	3-0
BUSADM 10102143	Management Techniques	3	3-0
MKTG 10104102	Marketing Principles	3	3-0
FINANCE 10114126	Corporate Finance	3	3-0
Choose from one of the following options:			
Option A: Employment Law and an Elective			
Option B: 6 credits from one emphasis area			
HRMGT 10116168	Employment Law Emphasis Area Course	3	3-0
Fourth Semester			
BUSADM 10102104	Business Statistics	3	3-0
BUSADM 10102132	Strategic Leadership	3	3-0
BUSADM 10102133	Topics in Tactical Management	3	3-0
ECON 10809195	Economics	3	3-0
Choose from one of the following options:			
Option A: Employment Law and an Elective			
Option B: 6 credits from one emphasis area			
	Elective Emphasis Area Course	3	
Business-Related Emphasis Area Courses			
<i>Accounting Emphasis</i>			
ACCTG 10101113	Accounting 2 - Principles	4	4-0
ACCTG 10101123	Tax 1	4	4-0

ACCTG 10101138	Accounting And Payroll Systems	3	2-2
ACCTG 10101139	QuickBooks-Beginning	1	0.5-1
ACCTG 10101141	QuickBooks-Intermediate	1	0.5-1
<i>AgriBusiness Emphasis</i>			
FARMBUS 10090381	Agriculture Business Management	3	3-0
FARMBUS 10090382	Principles of Sustainable Soil and Crop Management	3	3-0
FARMBUS 10090385	Principles of Animal Science and Management	3	3-0
FARMBUS 10090386	Agriculture Finance and Economics	3	3-0
<i>Finance Emphasis</i>			
FINANCE 10114128	Financial Institutions	3	3-0
FINANCE 10114130	Personal Finance	3	3-0
FINANCE 10114140	Investments	3	3-0
<i>Human Resources Emphasis</i>			
HRMGT 10116147	Wage, Salary & Benefits Admin	3	3-0
HRMGT 10116148	Labor 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
<i>Marketing Emphasis</i>			
MKTG 10104104	Selling Principles	3	3-0
MKTG 10104114	Social Media Principles	3	3-0
MKTG 10104125	Principles of Advertising	3	3-0
MKTG 10104126	Public Relations	3	3-0
MKTG 10104162	Mobile Marketing (Social Media)	3	3-0
MKTG 10104169	Internet Marketing	3	3-0
<i>Medical Administrative Emphasis</i>			
COMPSOFT 10103169	Collaboration Tools	1	0.27-1.5
ADMINPRF 10160165	Medical Administrative Procedures	3	1-4
ADMINPRF 10160178	Medical Language for the Business Professional 1	2	1-2
<i>Microsoft Skills Emphasis</i>			
COMPSOFT 10103125	Access - Intermediate	1	0.27-1.5
COMPSOFT 10103132	Excel - Advanced	1	0.27-1.5
COMPSOFT 10103145	Access - Beginning	1	0.27-1.5
COMPSOFT 10103165	Outlook	1	0.27-1.5
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
<i>Real Estate Emphasis</i>			
RLEST 10194182	Real Estate Law	4	4-0
RLEST 10194185	Real Estate Brokerage	4	4-0
<i>Risk Management & Insurance Emphasis</i>			
INSMGT 10162125	Intro to Business Insurance Contracts (AAI 82)	3	3-0
INSMGT 10162126	Introduction to Loss Investigator (AIC 33)	3	3-0
INSMGT 10162131	Introduction to Employee Benefits	1	3-0
INSMGT 10162133	Managing Business Risks	3	3-0
INSMGT 10162135	Detecting Employee Fraud	3	3-0
<i>Small Business Emphasis</i>			
SMLBUS 10145102	Small Business Development	3	3-0
SMLBUS 10145105	Operations Management	3	3-0
SMLBUS 10145106	Small Business Marketing	3	3-0
SMLBUS 10145117	Introduction to Entrepreneurship	3	3-0
SMLBUS 10145185	Customer Service Management	3	3-0

Business Plan

Program Number: 901453CERT

Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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			
SMLBUS 10145102	Small Business Development	3	3-0
SMLBUS 10145106	Small Business Marketing	3	3-0
<i>Take one of the following courses:</i>			
SMLBUS 10145108	Field Experience	2	1-0
SMLBUS 10145117	Introduction to Entrepreneurship	3	3-0

CNC Operations

Program Number: 904203CERT

Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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 32420346	Intro to CNC - G-code Programming	2	2-2
MACHT 32420337	Manufacturing w/Solid Modeling-2D	2	4-0
MACHT 32420348	Applied CNC-Conversational and Setup	2	2-2
MACHT 32420336	Manufacturing w/Solid Modeling 3D	2	4-0
MACHT 32420389	Applied CNC - Intermediate Operations	2	1-3
MACHT 32420370	Manufacturing w/Solid Modeling-Advanced	1	1-1
MACHT 32420391	Applied CNC - Advanced Operations	1	0-2

Cabinetmaking and Millwork

Program Number: 314092

A One Year Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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 31409328	Woodworking 1A	2	1-3
CABMIL 31409329	Woodworking 1B	3	1-5
CABMIL 31409331	Woodworking 2: Materials and Processes	5	2-8
CABMIL 31409337	Workplace Safety	1	0-2
CABMIL 31409341	Wood Finishing 1	1	1-1
CABMIL 31409381	Drawing 1	1	0-1.88
CABMIL 31409382	Drawing 2	1	0-2
COMM 31801356	Communications 1	1	2-0
MATH 31804379	Vocational Math 1	1	2-0
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 31409342	Countertops and Surfaces	2	2-2
CABMIL 31409345	Wood Finishing 2	1	0-2
CABMIL 31409383	AutoCAD for Cabinet Drawing 1	1	0-2
CABMIL 31409384	AutoCAD for Cabinet Drawing 2	1	0-2

Carpentry (Construction)

Program Number: 504101

Apprenticeship Completion

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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			
CARP 50410593	Tech Carpentry Semester 1	2	1.5-3
Second Semester			
CARP 50410594	Tech Carpentry Semester 2	2	2.22-2.22
Third Semester			
CARP 50410595	Tech Carpentry Semester 3	2	3-1.5
Fourth Semester			
CARP 50410596	Tech Carpentry Semester 4	2	3.33-1.11
Fifth Semester			
CARP 50410597	Tech Carpentry Semester 5	2	1.5-3
Sixth Semester			
CARP 50410598	Tech Carpentry Semester 6	2	3-1.5

Carpentry Techniques

Program Number: 304102

Embedded Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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.

Courses		Credits/Units	Hrs/Week LEC-LAB
CONST 31410301	Introduction to Construction	5	2-8
CONST 31410328	Construction Techniques 1	5	2-8
CONST 31410337	Workplace Safety	1	0-2
CONST 31410399	Fundamentals Of Construction	3	1-5
COMM 31801356	Communications 1	1	2-0
MATH 31804379	Vocational Math 1	1	2-0

Child Care Services

Program Number: 313071

A One Year Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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 ECE	3	3-0
EARLYCHL 10307151	ECE: Infant & Toddler Development	3	3-0
EARLYCHL 10307166	ECE: Curriculum Planning	3	2-2
EARLYCHL 10307167	ECE: Health, Safety, & Nutrition	3	3-0
EARLYCHL 10307174	ECE: Practicum 1	3	1-0
ENGLISH 10801195	Written Communication	3	3-0
Second Semester			
EARLYCHL 10307178	ECE: Art, Music & Lang Arts	3	2-2
EARLYCHL 10307179	ECE: Child Development	3	3-0
EARLYCHL 10307188	ECE: Guiding Child Behavior	3	2-2
EARLYCHL 10307192	ECE: Practicum 2	3	1-0

Civil Engineering Technology

Program Number: 106071

Associate in Applied Science

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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 10607155	Survey 1	3	1.5-3
ENGLISH 10801195	Written Communication	3	3-0
MATH 10804114	College Technical Math 1B	2	2-0
ECON 10809195	Economics	3	3-0
PSYCH 10809199	Psychology Of Human Relations	3	3-0
CIVILET 10607125	Intro To Cad Civil Engineer	2	1-2
Second Semester			
COMPSON 10103133	Excel - Beginning	1	0.27-1.5
CIVILET 10607147	Civil Drawing 1	3	1-2
CIVILET 10607149	Aggregates And Concrete	2	1-0
CIVILET 10607156	Survey 2	3	2-0
CIVILET 10607193	Career Development - Civil Engineering Program	1	1-0
MATH 10804116	College Technical Math 2	4	4-0
PHYSICS 10806154	General Physics 1	4	3-2
Third Semester			
CIVILET 10607148	Civil Drawing 2	2	1-0
CIVILET 10607158	Survey 3	3	1-2
CIVILET 10607160	Soils	2	1-0
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 - Civil Engineering Technology Program	3	1-0
CIVILET 10607171	Construction Materials -Civil Engineering Technician Program	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	

Clinical Ophthalmic Assistant

Program Number: 905161CERT

Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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	3-2
OPTOMET 31516301	Ophthalmic Pre-Testing	3	3-3
OPTOMET 31516305	Basic Optical Concepts	3	3-2
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	2.5-2.5
OPTOMET 31516335	Ophthalmic Specialty Testing	3	4-2
OPTOMET 31516340	Patient Relations/Pract Manage	2	3.33-0
OPTOMET 31516345	Preclinical	2	0-4
OPTOMET 31516350	Clinical Experience	3	0-0

Construction Essentials

Program Number: 304103

Embedded Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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 31410337	Workplace Safety	1	0-2
CONST 31410399	Fundamentals Of Construction	3	1-5
COMM 31801356	Communications 1	1	2-0
MATH 31804379	Vocational Math 1	1	2-0

Construction and Remodeling

Program Number: 314106

A One Year Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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 31410301	Introduction to Construction	5	2-8
CONST 31410302	Plans, Site and Formwork	2	1-3
CONST 31410309	Plan Reading and Drawing	1	1-1
CONST 31410328	Construction Techniques 1	5	2-8
CONST 31410337	Workplace Safety	1	0-2
CONST 31410410	Fundamentals of Construction 1	2	1-2
COLLSUCC 10890101	College Success and Study Skills 1cr	1	1-0
MATH 31804379	Vocational Math 1	1	2-0
Second Semester			
CONST 31410308	Construction Industry Codes and Regulations	2	2-2
CARP 31410329	Construction Techniques 2	5	2-8
CONST 31410329	Construction Techniques 2	5	2-8
CARP 31410335	Intermediate Carpentry Lab	2	1-3
CONST 31410335	Intermediate Carpentry Lab	2	1-3
CONST 31410345	Materials and Estimating 1	1	2-0
CONST 31410411	Fundamentals of Construction 2	1	0-2
COMM 31801356	Communications 1	1	2-0
	Select 3 courses from the Course Selectives list below.	3	
Course Selectives			
CONST 31410363	Building Science and Sustainability	1	2-0
CONST 31410385	Construction Drawing - Construction and Remodeling Program	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

Cosmetology

Program Number: 315021

A One Year Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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	Making the Cut	1	1-0
First Semester			
COSMET 31502321	Cosmetology Techniques 1	3	0-6
COSMET 31502322	Cosmetology Techniques 2	2	0-4
COSMET 31502340	Cosmetology Theory 1	5	10-0
COSMET 31502341	Cosmetology Theory 2	4	8-0
Second Semester			
COSMET 31502323	Cosmetology Techniques 3	3	0-6
COSMET 31502324	Cosmetology Techniques 4	3	0-6
COSMET 31502325	Cosmetology Techniques 5	4	0-8
COSMET 31502342	Cosmetology Theory 3	4	8-0
COSMET 31502392	Cosmetology Sales and Advertising 1	1	2-0
COSMET 31502398	Cosmetology Client Relations	1	2-0
Third Semester			
COSMET 31502326	Cosmetology Techniques 6	4	0-8
COSMET 31502327	Cosmetology Techniques 7	4	0-8
COSMET 31502328	Cosmetology Techniques 8	4	0-8
COSMET 31502393	Cosmetology Sales and Advertising 2	1	2-0
COSMET 31502343	Cosmetology Theory 4	3	6-0
COSMET 31502395	Cosmetology State Board Review	1	2-0

Cosmetology Apprenticeship

Program Number: 505021

Apprenticeship Completion

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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	Related Cosmetology 1	2	4-0
Second Semester			
COSMET 50502522	Related Cosmetology 2	2	4-0
Third Semester			
COSMET 50502523	Related Cosmetology 3	2	4-0
Fourth Semester			
COSMET 50502524	Related Cosmetology 4	2	4-0

Court Reporting

Program Number: 101702

Associate in Applied Science

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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 10102160	Business Law 1	3	3-0
COURT 10170111	Court Reporting 1	4	2-4
COURT 10170121	CAT Class 1	1	0.77-0.5
COURT 10170131	English for Realtime Reporters 1	1	0.77-0.5
MATH 10804123	Math with Business Applications	3	3-0
Second Semester			
COURT 10170112	Court Reporting 2	4	2-4
COURT 10170122	CAT Class 2	1	0.77-0.5
COURT 10170132	English for Realtime Reporters 2	1	0.77-0.5
MEDTERM 10501101	Medical Terminology	3	3-0
SOC 10809197	Contemporary Amer Society	3	3-0
Third Semester (summer)			
COURT 10170113	Court Reporting 3	4	2-4
SOC 10809172	Introduction to Diversity Studies	3	3-0
Fourth Semester			
COURT 10170114	Court Reporting 4	4	2-4
COURT 10170124	CAT Class 4	1	0.5-1
COURT 10170134	English for Realtime Reporters 4	1	0.5-1
ENGLISH 10801195	Written Communication	3	3-0
PSYCH 10809199	Psychology Of Human Relations	3	3-0
Fifth Semester			
COURT 10170115	Court Reporting 5	4	2-4
COURT 10170125	CAT Class 5	1	0.5-1
COURT 10170135	English for Realtime Reporters 5	1	0.5-1
COMM 10801196	Oral/Interpersonal Communication	3	3-0
ECON 10809195	Economics	3	3-0
Sixth Semester (summer)			
COURT 10170116	Court Reporting 6	4	2-4
COURT 10170170	Court Reporting Procedures	3	3-0
COURT 10170171	Legal Terminology	2	2-0
COURT 10170172	Court Reporting Internship	3	0-0

Criminal Justice - Law Enforcement

Program Number: 105041

Associate in Applied Science

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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	3	3-0
CRIMJUST 10504900	Introduction to Criminal Justice	3	3-0
ENGLISH 10801195	Written Communication	3	3-0
MATH 10804107	College Mathematics	3	2-2
PSYCH 10809199	Psychology Of Human Relations	3	3-0
COLLSUCC 10890101	College Success and Study Skills 1cr	1	1-0
Second Semester			
CRIMJUST 10504171	Private Sector Security	3	3-0
CRIMJUST 10504902	Criminal Law	3	3-0
CRIMJUST 10504904	Juvenile Law	3	3-0
COMM 10801196	Oral/Interpersonal Communication	3	3-0
POLISCI 10809122	Intro to Amer Government	3	3-0
SOC 10809197	Contemporary Amer Society	3	3-0
Third Semester			
CRIMJUST 10504103	Professional Development Seminar for Criminal Justice	1	1-0
CRIMJUST 10504901	Constitutional Law	3	3-0
CRIMJUST 10504905	Report Writing	3	3-0
CRIMJUST 10504906	Criminal Investigation Theory	3	2-2
CRIMJUST 10504908	Traffic Theory	3	3-0
EMS 10531150	Emergency Response for Protective Services-Criminal Justice/Law Enforcement Program	2	2-0
	Elective	3	
Fourth Semester			
CRIMJUST 10504143	Criminology for Law Enforcement	3	3-0
CRIMJUST 10504152	Emergency Management	3	3-0
CRIMJUST 10504903	Professional Communications	3	3-0
CRIMJUST 10504907	Community Policing Strategies	3	3-0
SOC 10809172	Introduction to Diversity Studies	3	3-0
	Elective	3	

Criminal Justice-Law Enforcement 720 Academy

Program Number: 305042

Less Than One Year Tech Diplom

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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.

Courses		Credits/Units	Hrs/Week
			LEC-LAB
CRIMJUST 30504310	Application of Investigations	2	2.16-1.38
CRIMJUST 30504311	Application of Traffic Response	2	1.33-3.33
CRIMJUST 30504312	Health and Fitness	1	0.22-1.88
CRIMJUST 30504313	Overview of Criminal Justice	1	1.77-0.22
CRIMJUST 30504314	Overview of Investigations	2	2.55-0.77
CRIMJUST 30504315	Overview of Patrol Response	2	2.11-0.88
CRIMJUST 30504316	Overview of Tactics	1	1.11-1.11
CRIMJUST 30504317	Principles of Emergency Vehicle Response	2	0.66-2.66
CRIMJUST 30504318	Principles of Investigations	2	2.44-0.66
CRIMJUST 30504319	Principles of Patrol Response	2	2.22-2.11
CRIMJUST 30504320	Principles of Tactics	3	0.55-5.55

Culinary Arts

Program Number: 103161

Associate in Applied Science

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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			
CUL ARTS 10316101	Principles Of Sanitation	1	1-0
CUL ARTS 10316106	Food Theory	2	2-0
CUL ARTS 10316108	Culinary Baking Fundamentals	1	1-0
CUL ARTS 10316111	Professional Cooking 1	4	0-8
CUL ARTS 10316115	Culinary Baking Lab	2	0-4
CUL ARTS 10316140	Menu Planning	1	1-0
PHILOS 10809166	Intro to Ethics: Theory & App	3	3-0
Second Semester			
ACCTG 10101106	Accounting Fundamentals	3	3-0
CUL ARTS 10316121	Professional Cooking 2	4	0-8
CUL ARTS 10316133	Garde Manger/Decorative Foods	2	0-4
CUL ARTS 10316139	Catering	2	2-0
CUL ARTS 10316152	Nutrition	1	1-0
ENGLISH 10801195	Written Communication	3	3-0
Third (Summer) Term			
CUL ARTS 10316194	Culinary Internship	2	0-0
Fourth Semester			
HOSPT 10109134	Hotel/Restaurant Cost Control	3	3-0
CUL ARTS 10316104	Intro To Gourmet Food Prep	3	0-6
CUL ARTS 10316132	Waitstaff Training	1	0-0
CUL ARTS 10316158	Food Purchasing Analysis	1	1-0
MATH 10804123	Math with Business Applications	3	3-0
SOC 10809197	Contemporary Amer Society	3	3-0
	Elective	3	
Fifth Semester			
HOSPT 10109125	Hospitality Leadership	3	3-0
CUL ARTS 10316130	Gourmet Foods	4	1-6
CUL ARTS 10316135	Dining Room Operation	1	0-0
COMM 10801196	Oral/Interpersonal Communication	3	3-0
ECON 10809195	Economics	3	3-0
PSYCH 10809199	Psychology Of Human Relations	3	3-0

Culinary Production Specialist

Program Number: 313162

Embedded Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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			
CUL ARTS 10316101	Principles Of Sanitation	1	1-0
CUL ARTS 10316106	Food Theory	2	2-0
CUL ARTS 10316108	Culinary Baking Fundamentals	1	1-0
CUL ARTS 10316111	Professional Cooking 1	4	0-8
CUL ARTS 10316115	Culinary Baking Lab	2	0-4
CUL ARTS 10316140	Menu Planning	1	1-0
PHILOS 10809166	Intro to Ethics: Theory & App	3	3-0
Second Semester			
ACCTG 10101106	Accounting Fundamentals	3	3-0
CUL ARTS 10316121	Professional Cooking 2	4	0-8
CUL ARTS 10316133	Garde Manger/Decorative Foods	2	0-4
CUL ARTS 10316139	Catering	2	2-0
CUL ARTS 10316152	Nutrition	1	1-0
ENGLISH 10801195	Written Communication	3	3-0
Third/Summer Semester			
CUL ARTS 10316194	Culinary Internship	2	0-0

Dental Assistant

Program Number: 305082

Less Than One Year Tech Diplom

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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
DENTHYG 10508113	Dental Materials	2	1-2
DENTHYG 10508304	Dental & General Anatomy	2	2-0
DENTHYG 10508103	Dental Radiography	2	1-2
DENTAST 31508306	Dental Assistant Clinical	3	0-0
DENTAST 31508307	Dental Assistant Professional	1	2-0

Dental Hygienist

Program Number: 105081

Associate in Applied Science

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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			
<i>The following courses must be completed prior to acceptance into dental courses:</i>			
BIOLOGY 20806206	General Anatomy and Physiology	4	3-2
CHEM 20806201	General, Organic & Biological Chemistry	5	4-2
<i>Choose from Microbiology or General Microbiology:</i>			
BIOLOGY 20806273	Microbiology-University Medical	5	3-4
BIOLOGY 20806274	General Microbiology	5	3-4
Summer Semester			
<i>The following must be taken prior to fall/first semester:</i>			
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 20809231	Intro Psychology	3	3-0
Third Semester			
DENTHYG 10508111	General and Oral Pathology	3	3-0
DENTHYG 10508112	Dental Hygiene Process 3	5	2-0
DENTHYG 10508114	Dental Pharmacology	2	2-0
DENTHYG 10508115	Community Dental Health	2	2-0
DENTHYG 10508118	Dental Anxiety and Pain Management	2	2-0
SOC 20809203	Intro Sociology	3	3-0
Fourth Semester			
DENTHYG 10508107	Dental Hygiene Ethics & Profes	1	1-0
DENTHYG 10508117	Dental Hygiene Process 4	4	0-0
ENGLISH 10801195	Written Communication	3	3-0
SPEECH 10801198	Speech	3	3-0
PSYCH 20809233	Developmental Psychology	3	3-0
	Elective	1	

Diesel & Heavy Equipment Technician

Program Number: 324121

A Two Year Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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			
MATH 10804107	College Mathematics	3	2-2
DIESEL 10412140	Diesel Shop Skill Fundamentals	1	0-2
DIESEL 10412155	Heavy Duty Drivetrains	4	2-0
DIESEL 10412164	Brake and Suspension Systems	4	2-0
WELD 10442126	Metal Repair Techniques	2	1-0
Second Semester			
DIESEL 10412137	Preventive Maintenance Inspections	4	3-2
DIESEL 10412144	Fundamental Diesel Electrical/Electronics Systems	3	1-0
DIESEL 10412145	Electrical/Electronics Systems Diagnostics	3	1-0
PHYSICS 31806363	Science 1	2	2-2
Third Semester			
DIESEL 10412138	Diesel Shop Management	2	2-0
DIESEL 10412176	Diesel Fuel Systems	4	2-0
DIESEL 10412177	Diesel Engine Diagnostics	2	1-2
DIESEL 10412178	Diagnostic Strategies	2	1-2
DIESEL 10412188	Electronic Control Systems	2	1-2
ENGLISH 10801195	Written Communication	3	3-0
Fourth Semester			
DIESEL 10412112	Mobile Hydraulics	3	2-2
DIESEL 10412125	Cab Climate Control and Refrigeration Systems	3	1-4
DIESEL 10412184	Diesel Engine Technology	2	0-4
DIESEL 10412185	Diesel Engine Repair	4	0.5-2

Diesel Equipment Technology

Program Number: 104121

Associate in Applied Science

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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			
MATH 10804107	College Mathematics	3	2-2
DIESEL 10412137	Preventive Maintenance Inspections	4	3-2
DIESEL 10412144	Fundamental Diesel Electrical/Electronics Systems	3	1-0
DIESEL 10412145	Electrical/Electronics Systems Diagnostics	3	1-0
WELD 10442126	Metal Repair Techniques	2	1-0
Second Semester			
ENGLISH 10801195	Written Communication	3	3-0
SOC 10809197	Contemporary Amer Society	3	3-0
DIESEL 10412112	Mobile Hydraulics	3	2-2
DIESEL 10412155	Heavy Duty Drivetrains	4	2-0
DIESEL 10412164	Brake and Suspension Systems	4	2-0
Third/Summer Semester			
DIESEL 10412190	Diesel Equipment Laboratory Experience 1	1	0-2
DIESEL 10412195	Occupational Experience 1 - Diesel Equipment Technology Program	2	0-0
Fourth Semester			
DIESEL 10412125	Cab Climate Control and Refrigeration Systems	3	1-4
DIESEL 10412184	Diesel Engine Technology	2	0-4
DIESEL 10412185	Diesel Engine Repair	4	0.5-2
ENGLISH 10801197	Technical Reporting	3	3-0
PHYSICS 10806139	Survey of Physics	3	1-4
Fifth Semester			
DIESEL 10412176	Diesel Fuel Systems	4	2-0
DIESEL 10412177	Diesel Engine Diagnostics	2	1-2
DIESEL 10412138	Diesel Shop Management	2	2-0
DIESEL 10412178	Diagnostic Strategies	2	1-2
DIESEL 10412188	Electronic Control Systems	2	1-2
ECON 10809195	Economics	3	3-0
PSYCH 10809199	Psychology Of Human Relations	3	3-0

Digital Forensics

Program Number: 905041CERT

Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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 10504185	Introduction to Computer Forensics	3	3-0
CRIMJUST 10504186	Introduction to Internet and Network Concepts	3	3-0
CRIMJUST 10504196	Ethics	1	1-0
Second Semester			
CRIMJUST 10504187	Legal Issues and Digital Evidence	3	3-0
CRIMJUST 10504189	Introduction to Video Evidence	3	3-0
CRIMJUST 10504195	Mobile Forensics	3	3-0
Third Semester			
CRIMJUST 10504188	Advanced Computer Forensics Concepts/Forensics Practicum	3	2-2

Digital Marketing

Program Number: 311045

Embedded Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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 Principles	3	3-0
MKTG 10104162	Mobile Marketing (Social Media)	3	3-0
MKTG 10104164	Marketing Digital Design	3	3-0
MKTG 10104169	Internet Marketing	3	3-0
Second Semester			
MKTG 10104103	Marketing Research	3	3-0
MKTG 10104113	Leadership Ethics in the Digital Age	3	3-0
MKTG 10104115	Capstone Campaign	3	3-0
MKTG 10104126	Public Relations	3	3-0

Early Childhood Education

Program Number: 103071

Associate in Applied Science

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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 ECE	3	3-0
EARLYCHL 10307151	ECE: Infant & Toddler Dev	3	3-0
EARLYCHL 10307166	ECE: Curriculum Planning	3	2-2
EARLYCHL 10307167	ECE: Health, Safety, & Nutrition	3	3-0
EARLYCHL 10307174	ECE: Practicum 1	3	1-0
ENGLISH 10801195	Written Communication	3	3-0
Second Semester			
EARLYCHL 10307178	ECE: Art, Music & Lang Arts	3	2-2
EARLYCHL 10307179	ECE: Child Development	3	3-0
EARLYCHL 10307188	ECE: Guiding Child Behavior	3	2-2
EARLYCHL 10307192	ECE: Practicum 2	3	1-0
SPEECH 10801198	Speech	3	3-0
SOC 10809172	Introduction to Diversity Studies	3	3-0
Third Semester			
EARLYCHL 10307194	ECE: Math Science & Soc St	3	2-2
EARLYCHL 10307195	ECE: Family & Community Rel	3	3-0
EARLYCHL 10307197	ECE: Practicum 3	3	0-0
COMM 10801196	Oral/Interpersonal Communication	3	3-0
PSYCH 10809199	Psychology Of Human Relations	3	3-0
Fourth Semester			
EARLYCHL 10307187	ECE: Children w diff Abilities	3	3-0
EARLYCHL 10307198	ECE: Admin an ECE Program	3	3-0
EARLYCHL 10307199	ECE: Practicum 4	3	0-0
MATH 10804123	Math with Business Applications	3	3-0
SOC 10809197	Contemporary Amer Society	3	3-0
	Elective	3	

Early Childhood Education Entry Level Provider

Program Number: 903075CERT

Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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.

Courses		Credits/Units	Hrs/Week
			LEC-LAB
EARLYCHL 10307167	ECE: Health, Safety, & Nutrition	3	3-0
EARLYCHL 10307178	ECE: Art, Music & Lang Arts	3	2-2
EARLYCHL 10307188	ECE: Guiding Child Behavior	3	2-2

Early Childhood Education Infant & Toddler

Program Number: 903072CERT

Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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 10307161	Infants/Toddlers-Grp Care	3	3-0
EARLYCHL 10307195	ECE: Family & Community Relations	3	3-0

Early Childhood Education Preschool

Program Number: 303077

Embedded Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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 ECE	3	3-0
EARLYCHL 10307167	ECE: Health, Safety, & Nutrition	3	3-0
EARLYCHL 10307174	ECE: Practicum 1	3	1-0
Second Semester			
EARLYCHL 10307178	ECE: Art, Music & Language Arts	3	2-2
EARLYCHL 10307179	ECE: Child Development	3	3-0
EARLYCHL 10307188	ECE: Guiding Child Behavior	3	2-2

Early Childhood Education Preschool

Program Number: 903071CERT

Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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 ECE	3	3-0
Second Semester			
EARLYCHL 10307179	ECE: Child Development	3	3-0
Third Semester			
EARLYCHL 10307167	ECE: Health, Safety, & Nutrition	3	3-0
Fourth Semester			
EARLYCHL 10307188	ECE: Guiding Child Behavior	3	2-2
Fifth Semester			
EARLYCHL 10307178	ECE: Art, Music & Lang Arts	3	2-2
Sixth Semester			
EARLYCHL 10307130	ECE: Preschool Capstone	3	3-0

Electrical Construction Apprentice

Program Number: 504133

Apprenticeship Completion

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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 50413530	Tech Electrical 1	4	6-2
Second Semester			
ELEC 50413531	Tech Electrical 2	4	6-2
Third Semester			
ELEC 50413532	Tech Electrical 3	2	2-2
Fourth Semester			
ELEC 50413533	Tech Electrical 4	2	2-2
Fifth Semester			
ELEC 50413534	Tech Electrical 5	2	3-1
Sixth Semester			
ELEC 50413535	Tech Electrical 6	2	3-1
Seventh Semester			
ELEC 50413570	Tech Electrical 7	2	2-2
Eighth Semester			
ELEC 50413571	Tech Electrical 8	2	2-2

Electrical Engineering Technology

Program Number: 106621

Associate in Applied Science

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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
PSYCH 10809199	Psychology Of Human Relations	3	3-0
ELECT 10605112	AC/DC Electronics 1	3	2-0
ELECT 10605113	Analog Circuit Techniques	3	1-4
ELECT 10605118	Digital Circuit Techniques	3	1-4
ELECT 10605172	Applied Electronic Math 2	2	1-0
Second Semester			
ECON 10809195	Economics	3	3-0
ELECT 10605114	AC/DC Electronics 2	3	2-0
ELECT 10605115	Analog Circuit Principles	3	2-0
ELECT 10605119	Digital Circuit Principles	3	2-0
ELECT 10605173	Embedded Programming	3	2-0
Third Semester			
ENGLISH 10801197	Technical Reporting	3	3-0
PHYSICS 10806143	College Physics 1	3	2-2
ELECT 10605131	Technical Calculus 1	4	3-2
ELECT 10605143	Motors and Control Circuits	3	2-0
ELECT 10605176	Microcontrollers	3	2-0
ELECENG 10662112	AC/DC Electronics 3	3	2-0
Fourth Semester			
SOC 20809203	Intro Sociology	3	3-0
ELECT 10605108	Certified IPC Application Specialist (CIS) J-STD-001	1	0.5-1
ELECT 10605132	Technical Calculus 2	4	3-2
ELECT 10605145	Programmable Logic Controls	3	2-0
ELECT 10605178	Networks, Interfacing and Programming	3	2-0
ELECENG 10662124	Advanced Circuit Analysis	3	2-0

Electrical Maintenance

Program Number: 304621

Embedded Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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.

Courses		Credits/Units	Hrs/Week LEC-LAB
IND MECH 10462320	DC/AC Circuits	3	0-6
INDMANUF 10623100	Safety for Industry	1	0-2
INDMANUF 10623200	Interpreting Engineering Drawings	2	0-4
MATH 31804381	Machine Tool Math 1	2	4-0
MATH 31804382	Machine Tool Math 2	1	2-0
SMLBUS 10145189	Customer Relations	2	2-0

Electrician Apprentice (ABC)

Program Number: 504139

Apprenticeship Completion

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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 50413580	Trade Electrical Semester 1	2	3-1
Second Semester			
ELEC 50413581	Trade Electrical Semester 2	2	3-1
Third Semester			
ELEC 50413582	Trade Electrical Semester 3	2	3-1
Fourth Semester			
ELEC 50413583	Trade Electrical Semester 4	2	3-1
Fifth Semester			
ELEC 50413584	Trade Electrical Semester 5	2	3-1
Sixth Semester			
ELEC 50413585	Trade Electrical Semester 6	2	3.4-0.6
Seventh Semester			
ELEC 50413586	Trade Electrical Semester 7	2	3-1
Eighth Semester			
ELEC 50413587	Trade Electrical Semester 8	2	3-1
Ninth Semester			
ELEC 50413588	Trade Electrical Semester 9	2	3-1
Tenth Semester			
ELEC 50413589	Trade Electrical Semester 10	2	3-1

Electronic Assembler

Program Number: 306053

Embedded Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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	2-0
ELECT 10605118	Digital Circuit Techniques	3	1-4

Electronic Assembler

Program Number: 906051CERT

Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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			
ELECT 10605112	AC/DC Electronics 1	3	2-0
ELECT 10605118	Digital Circuit Techniques	3	1-4
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

Electronic Service Technician

Program Number: 316052

Embedded Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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	2-0
ELECT 10605113	Analog Circuit Techniques	3	1-4
ELECT 10605118	Digital Circuit Techniques	3	1-4
ELECT 10605172	Applied Electronic Math 2	2	1-0
ENGLISH 10801195	Written Communication	3	3-0
Second Semester			
ELECT 10605114	AC/DC Electronics 2	3	2-0
ELECT 10605115	Analog Circuit Principles	3	2-0
ELECT 10605119	Digital Circuit Principles	3	2-0
ELECT 10605123	Embedded Device Concepts	3	2-0

Electronics

Program Number: 106051

Associate in Applied Science

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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 10605112	AC/DC Electronics 1	3	2-0
ELECT 10605113	Analog Circuit Techniques	3	1-4
ELECT 10605118	Digital Circuit Techniques	3	1-4
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 10605172	Applied Electronic Math 2	2	1-0
ENGLISH 10801195	Written Communication	3	3-0
Second Semester			
ELECT 10605114	AC/DC Electronics 2	3	2-0
ELECT 10605115	Analog Circuit Principles	3	2-0
ELECT 10605119	Digital Circuit Principles	3	2-0
ELECT 10605123	Embedded Device Concepts	3	2-0
ENGLISH 10801197	Technical Reporting	3	3-0
Third Semester			
ELECT 10605143	Motors and Control Circuits	3	2-0
ELECT 10605151	Instrumentation and Troubleshooting	3	2-0
ELECT 10605152	Digital Systems Analysis	3	2-0
PHYSICS 10806143	College Physics 1	3	2-2
ECON 10809195	Economics	3	3-0
Fourth Semester			
ELECT 10605116	Advanced Circuit Techniques	3	2-0
ELECT 10605178	Networks, Interfacing and Programming	3	2-0
PHILOS 10809166	Intro to Ethics: Theory & App	3	3-0
PSYCH 10809199	Psychology Of Human Relations	3	3-0
	Electives	3	
<i>Recommended Electives</i>			
ELECT 10605101	Electronics Internship Level 1	3	0-0
ELECT 10605102	Electronics Internship Level 2	3	0-0
ELECT 10605136	Biomedical Electronics	3	2-0
ELECT 10605160	Virtual Reality	3	3-0
ELECT 10605173	Embedded Programming	3	2-0
ELECT 10605176	Microcontrollers	3	2-0
ELECT 10605252	Introduction to Computer Engineering	3	1-4
ELECT 10605270	AC/DC Circuit Techniques and Principles	3	1-4

Emergency Medical Technician

Program Number: 305313

Less Than One Year Tech Diplom

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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	1-0

Entrepreneurship

Program Number: 901452CERT

Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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.

Courses		Credits/Units	Hrs/Week LEC-LAB
SMLBUS 10145102	Small Business Development	3	3-0
SMLBUS 10145105	Operations Management	3	3-0
SMLBUS 10145106	Small Business Marketing	3	3-0
SMLBUS 10145108	Field Experience	2	1-0
SMLBUS 10145185	Customer Service Management	3	3-0

Ethnic Studies

Program Number: 908091CERT

Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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
Literature Courses:			
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 Courses:			
HISTORY 20803214	Native American History - Liberal Arts Transfer	3	3-0
HISTORY 20803240	Afro-American History	3	3-0
Social Sciences Courses:			
SOC 10809172	Introduction to Diversity Studies	3	3-0
SOC 20809252	Race and Ethnicity in the U.S.	3	3-0
ANTHRO 20809283	Cultural Anthropology & Human Diversity	3	3-0
ANTHRO 20809286	The Anthropology of Globalization & Multiculturalism	3	3-0

Facilities Management

Program Number: 904625CERT

Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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.

Courses		Credits/Units	Hrs/Week LEC-LAB
BUSADM 10102135	Project Management - Fundamentals	3	3-0
SUPDEV 10196136	Safety in the Workplace	3	3-0
IND MECH 10462336	Building Automation	3	0-6
IND MECH 10462318	Maintenance Management	2	0-4

Fashion Marketing

Program Number: 101044

Associate in Applied Science

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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 10103137	Word - Beginning	1	0.27-1.5
COMPSOFT 10103143	PowerPoint - Beginning	1	0.27-1.5
MKTG 10104102	Marketing Principles	3	3-0
MKTG 10104104	Selling Principles	3	3-0
FSHNMKTG 10104195	Fashion Analysis	2	2-0
FSHNMKTG 10104197	Apparel Marketing	3	3-0
<i>Choose from one of the following. Students taking the Technical Design Track are advised to take Adobe Illustrator for Fashion:</i>			
FSHNMKTG 10104198	Fashion CAD Lab	1	1-0
FSHNMKTG 10104122	Adobe Illustrator for Fashion	3	3-0
<i>Choose from one of the following courses. Students who choose the Social Media Track are advised to take Mobile Marketing. Students who choose the Retail Management Track are advised to take Retail Management:</i>			
MKTG 10104162	Mobile Marketing (Social Media)	3	3-0
FSHNMKTG 10104124	Retail Management	3	3-0
FSHNMKTG 10104122	Adobe Illustrator for Fashion	3	3-0
Second Semester			
COMPSOFT 10103133	Excel Beginning	1	0.27-1.5
FSHNMKTG 10104194	Visual Merchandising	3	2-2
FSHNMKTG 10104196	Textiles	2	1-2
MATH 10804144	Math of Finance	3	3-0
ENGLISH 10801195	Written Communication	3	3-0
<i>Choose from one of the following courses:</i>			
FSHNMKTG 10104120	Adobe Photoshop Fashion Design	3	3-0
MKTG 10104114	Social Media Principles	3	3-0
SUPDEV 10196191	Principles of Supervision	3	3-0
Third Semester (summer)			
FSHNMKTG 10104157	Fashion Internship	2	0.5-0
Fourth Semester			
FSHNMKTG 10104123	Merchandise Plan/Control	3	3-0
COMM 10801196	Oral/Interpersonal Communication	3	3-0
MKTG 10104113	Leadership Ethics in the Digital Age	3	3-0
MKTG 10104103	Marketing Research	3	3-0
<i>Choose from one of the following courses:</i>			
FSHNMKTG 10104186	History of Costume	3	3-0
GRDSGN 10201198	Social Media/Web Design Strategies	3	3-0
FSHNMKTG 10104118	Store Operations	3	1-0

Fifth Semester

Madison Area Technical College

Effective: 2017-2018

FSHNMKTG 10104182	Portfolio Presentation	3	3-0
ECON 10809195	Economics	3	3-0
PSYCH 10809199	Psychology Of Human Relations	3	3-0
MKTG 10104112	Marketing Design Strategies	3	3-0
<i>Choose from one of the following courses:</i>			
FSHNMKTG 10104127	Technical Design Specifications for Fashion	3	2-2
JOURNAL 20801262	Social Media Writing	3	3-0
SMLBUS 10145185	Customer Service Management	3	3-0

Finance

Program Number: 101142

Associate in Applied Science

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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
FINANCE 10114130	Personal Finance	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
BUSADM 10102104	Business Statistics	3	3-0
COMPSoft 10103145	Access - Beginning	1	0.27-1.5
FINANCE 10114128	Financial Institutions	3	3-0
BUSADM 10102160	Business Law 1	3	3-0
ECON 10809195	Economics	3	3-0
Third Semester			
ACCTG 10101118	Management Accounting	4	4-0
ACCTG 10101123	Tax 1	4	4-0
FINANCE 10114126	Corporate Finance	3	3-0
INSMGT 10162126	Introduction to Loss Investigaton (AIC 33)	3	3-0
COMM 10801196	Oral/Interpersonal Communication	3	3-0
Fourth Semester			
FINANCE 10114127	Financial Analysis	3	3-0
FINANCE 10114140	Investments	3	3-0
BUSADM 10102143	Management Techniques	3	3-0
PSYCH 10809199	Psychology Of Human Relations	3	3-0
	Elective or Concentration (see below)	3	
Concentrations			
<i>Financial Planning Concentration (select 3 credits)</i>			
FINANCE 10114120	Financial Planning	3	3-0
INSMGT 10162131	Introduction to Employee Benefits	1	3-0
MKTG 10104104	Selling Principles	3	3-0
<i>Risk Management & Insurance Concentration (select 3 credits)</i>			
INSMGT 10162125	Intro to Business Insurance Contracts (AAI 82)	3	3-0
INSMGT 10162126	Introduction to Loss Investigaton (AIC 33)	3	3-0
INSMGT 10162133	Managing Business Risks	3	3-0
INSMGT 10162135	Detecting Employee Fraud	3	3-0
<i>Small Business Concentration (select 3 credits)</i>			
SMLBUS 10145102	Small Business Development	3	3-0
SMLBUS 10145106	Small Business Marketing	3	3-0
<i>Accounting Concentration (select 3 credits)</i>			

Madison Area Technical College

Effective: 2017-2018

ACCTG 10101138	Accounting And Payroll Systems	3	2-2
ACCTG 10101139	QuickBooks-Beginning	1	0.5-1
<i>Management Concentration (select 3 credits)</i>			
BUSADM 10102134	Business Organization, Management, and Ethics	3	3-0
HRMGT 10116145	Introduction to Human Resources	3	3-0
<i>Other Recommended Electives</i>			
INSMGT 10162140	Risk Management and Insurance Internship	2	0-0
ACCTG 10101140	Accounting/Business Internship	3	0-0

Fire Protection Technician

Program Number: 105032

Associate in Applied Science

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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	3	3-0
FIRET 10503144	OSHA for the Fire Service	3	3-0
FIRET 10503191	Principles of Emergency Services	2	2-0
EMS 10531102	Emergency Medical Technician 1	2	1-2
EMS 10531103	Emergency Medical Technician 2	3	1-0
ENGLISH 10801195	Written Communication	3	3-0
MATH 10804107	College Mathematics	3	2-2
Second Semester			
FIRET 10503141	Firefighter 2/Hazardous Materials Operations	1	1-0
FIRET 10503142	Fire Fighting Principles	4	4-0
FIRET 10503100	Fire Recruit Academy	5	2-0
FIRET 10503154	Hazardous Materials Chemistry	2	2-0
COMM 10801196	Oral/Interpersonal Communication	3	3-0
CHEM 10806134	General Chemistry	4	3-2
PSYCH 10809199	Psychology Of Human Relations	3	3-0
Third Semester			
FIRET 10503148	Principles of Fire & Emergency Service Administration	4	4-0
FIRET 10503151	Fire Prevention	4	4-0
FIRET 10503195	Fire Behavior & Combustion	3	3-0
ENGLISH 10801197	Technical Reporting	3	3-0
SOC 10809197	Contemporary Amer Society	3	3-0
Fourth Semester			
FIRET 10503156	Strategies, Tactics & Inc Mgmt	4	4-0
FIRET 10503157	Fire Investigation	3	3-0
FIRET 10503192	Principles Emergency Services/Survival	3	3-0
FIRET 10503193	Fire Protection Systems	3	3-0
FIRET 10503194	Fire Protection Hydraulics	3	3-0
	Elective	1	

Fire Service Certification

Program Number: 305032

Less Than One Year Tech Diplom

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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			
<i>Choose from one of the two following Fire Recruit Academy courses:</i>			
FIRET 30503300	Fire Recruit Academy - Fire Service Certification Program	5	5.55-3.88
FIRET 10503100	Fire Recruit Academy	5	2-0
<i>Take both of the following courses:</i>			
EMS 10531102	Emergency Medical Technician 1	2	1-2
EMS 10531103	Emergency Medical Technician 2	3	1-0

Fitness and Wellness Specialist

Program Number: 301094

Less Than One Year Tech Diplom

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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			
RECMGT 10109159	Wellness Coaching and Promotion	3	3-0
RECMGT 10109195	Recreation Industry Budget and Financial Management	3	3-0
MEDTERM 10501153	Body Structure & Function - Used in a variety of Degree Programs	3	3-0
BIOLOGY 20806262	Anatomy and Physiology for Exercise Lab	1	0-2
Second Semester			
RECMGT 10109173	Group Fitness Development	3	2-2
RECMGT 10109176	Personal Trainer Development	3	1-4
RECMGT 10109190	Recreation Seminar	1	1-0
RECMGT 10109189	Foundations of Worksite Wellness	3	3-0

Fitness/Health Club Specialist

Program Number: 901091CERT

Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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 (Fall)			
RECMGT 10109159	Wellness Coaching and Promotion	3	3-0
RECMGT 10109195	Recreation Industry Budget and Financial Management	3	3-0
MEDTERM 10501153	Body Structure & Function - Used in a variety of Degree Programs	3	3-0
BIOLOGY 20806262	Anatomy and Physiology for Exercise Lab	1	0-2
Second Semester (Spring)			
RECMGT 10109173	Group Fitness Development	3	2-2
RECMGT 10109176	Personal Trainer Development	3	1-4
RECMGT 10109190	Recreation Seminar	1	1-0
RECMGT 10109189	Foundations of Worksite Wellness	3	3-0

Gas Metal Arc Welding (GMAW)

Program Number: 304425

Embedded Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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.

Courses		Credits/Units	Hrs/Week LEC-LAB
INDMANUF 10623100	Safety for Industry	1	0-2
INDMANUF 10623200	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
MATH 31804379	Vocational Math 1	1	2-0

Gender and Women's Studies

Program Number: 908093CERT

Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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			
<i>Students must complete a minimum of 12 credits from the following:</i>			
ENGLISH 20801211	Gay & Lesbian Literature	3	3-0
ENGLISH 20801250	Women In Literature	3	3-0
HISTORY 20803230	Women In History	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
PSYCH 20809201	Human Sexuality	3	3-0
SOC 20809204	Marriage and the Family	3	3-0
SOCSCI 20809210	Psychology of Men	3	3-0
SOCSCI 20809234	Psychology of Women	3	3-0
SOC 20809253	Sociology of Gender	3	3-0
SOC 20809277	Couple Relationships	1	1-0
ART 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 in place of one of the courses on this list.*

General Accountancy

Program Number: 311013

Embedded Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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
ACCTG 10101139	QuickBooks-Beginning	1	0.5-1
COMPSOFT 10103133	Excel - Beginning	1	0.27-1.5
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
ACCTG 10101141	QuickBooks-Intermediate	1	0.5-1
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
Fourth Semester			
ACCTG 10101122	Accounting 4-Intermediate	4	4-0
ACCTG 10101137	Computerized Accounting Applications	2	1.5-1
ACCTG 10101142	Accounting Capstone	3	2-2

Graphic Design

Program Number: 102011

An Associate in Applied Arts D

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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 10804123	Math with Business Applications	3	3-0
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 Communication	1	1-0
GRDSGN 10201181	Introduction to Computer Graphics	3	0-6
Second Semester			
PSYCH 10809199	Psychology Of Human Relations	3	3-0
GRDSGN 10201112	Color	2	0-4
GRDSGN 10201151	Typographic Design	3	0-6
GRDSGN 10201152	Applied Drawing	2	0-4
GRDSGN 10201177	Web Page Design	3	0-6
GRDSGN 10201182	Applied Computer Graphics	3	0-6
Third Semester			
COMM 10801196	Oral/Interpersonal Communication	3	3-0
ENGLISH 10801197	Technical Reporting	3	3-0
GRDSGN 10201106	Illustration	3	0-6
GRDSGN 10201121	Graphic Design	3	0-6
GRDSGN 10201128	Print & Digital Production	3	0-6
PHOTO 10203130	Intro Digital Photography	2	0-4
VICOM 10206129	Motion Design	2	0-4
Fourth Semester			
SOC 10809197	Contemporary American Society	3	3-0
GRDSGN 10201153	Integrated Design	2	0-4
GRDSGN 10201154	Design Project Management	3	0-6
GRDSGN 10201162	Graphic Design Portfolio Preparation	2	0-4
GRDSGN 10201184	Advanced Design & Layout	2	0-4
	Electives	6	
Recommended Electives			
GRDSGN 10201117	Illustrative Figure Drawing	3	0-6
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 10201149	Advanced Figure Drawing	3	0-6
GRDSGN 10201155	Content Management Systems for Designers	3	2-2

GRDSGN 10201178	Web Interactive & Animation	3	0-6
GRDSGN 10201183	Electronic Illustration	2	0-4
GRDSGN 10201193	Mobile Web Design	3	2.5-1
GRDSGN 10201195	Advanced Web Page Design	3	0-6
GRDSGN 10201198	Social Media/Web Design Strategies	3	3-0
VICOM 10206190	Advanced Interactive Media	2	0-4
ART 20815200	Art History: Ancient to Medieval	3	3-0
ART 20815210	Art History: Renaissance to Modern	3	3-0
ART 20815211	Art History: Women In Art	3	3-0
ART 20815256	Art Metal Welding	3	0-6

HVAC Apprentices (ABC)

Program Number: 504019

Apprenticeship Completion

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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			
HVAC 50401590	Trade Hvac Semester 1	2	3-1
Second Semester			
HVAC 50401591	Trade Hvac Semester 2	2	3-1
Third Semester			
HVAC 50401592	Trade Hvac Semester 3	2	3-1
Fourth Semester			
HVAC 50401593	Trade Hvac Semester 4	2	3-1
Fifth Semester			
HVAC 50401594	Trade Hvac Semester 5	2	3-1
Sixth Semester			
HVAC 50401595	Trade Hvac Semester 6	2	3-1
Seventh Semester			
HVAC 50401596	Trade Hvac Semester 7	2	3-1
Eighth Semester			
HVAC 50401597	Trade Hvac Semester 8	2	3-1

Healthcare Administrative & Insurance

Program Number: 905092CERT

Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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.

Courses		Credits/Units	Hrs/Week
			LEC-LAB
MEDTERM 10501101	Medical Terminology	3	3-0
MASST 31509302	Human Body in Health & Disease	3	6-0
MASST 31509307	Medical Office Insurance & Finance	2	4-0

Healthcare Receptionist

Program Number: 301602

Embedded Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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 10103165	Outlook	1	0.27-1.5
ADMINPRF 10106107	Business Document Applications	3	1-4
ADMINPRF 10106139	Keyboard Skillbuilding	1	0.27-1.5
ADMINPRF 10160178	Medical Language for the Business Professional 1	2	1-2
ENGLISH 10801195	Written Communication	3	3-0
Second Semester			
ADMINPRF 10106109	Business Spreadsheet Applications	3	1-4
ADMINPRF 10106164	Customer Contact Skills	1	1-0.5
ADMINPRF 10160165	Medical Administrative Procedures	3	1-4
ADMINPRF 10160179	Medical Language for the Business Professional 2	2	1-2

Hospitality Assistant

Program Number: 301091

Embedded Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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
BUSADM 10102114	Business Communication	3	3-0
COMM 10801196	Oral/Interpersonal Communication	3	3-0

Hospitality Management

Program Number: 101092

Associate in Applied Science

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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 10102114	Business Communication	3	3-0
HOSPT 10109101	Exploring Hospitality	3	3-0
MKTG 10104102	Marketing Principles	3	3-0
HOSPT 10109131	Rooms Division Operation	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
MKTG 10104114	Social Media Principles	3	3-0
EVTMGT 10109102	Fundamentals Of Meeting Mgmt	3	3-0
HOSPT 10109136	Hospitality Law	3	3-0
COMM 10801196	Oral/Interpersonal Communication	3	3-0
Third Semester (summer)			
HOSPT 10109157	Hospitality Internship	2	0-0
Fourth Semester			
EVTMGT 10109119	Event Professional Best Practices	3	3-0
HOSPT 10109125	Hospitality Leadership	3	3-0
HRMGT 10116145	Introduction to Human Resources	3	3-0
ECON 10809195	Economics	3	3-0
PSYCH 10809199	Psychology Of Human Relations	3	3-0
Fifth Semester			
HOSPT 10109134	Cost Control/Revenue Management	3	3-0
SMLBUS 10145106	Small Business Marketing	3	3-0
PHILOS 10809166	Intro to Ethics: Theory & App	3	3-0
SOC 10809197	Contemporary American Society	3	3-0

Hospitality Specialist

Program Number: 311094

Embedded Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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
HOSPT 10109101	Exploring Hospitality	3	3-0
HOSPT 10109131	Rooms Division Operation	3	3-0
BUSADM 10102114	Business Communication	3	3-0
MATH 10804123	Math with Business Applications	3	3-0
ENGLISH 10801195	Written Communication	3	3-0
Second Semester			
ACCTG 10101106	Accounting Fundamentals	3	3-0
MKTG 10104114	Social Media Principles	3	3-0
EVTMGT 10109102	Fundamentals Of Meeting Mgmt	3	3-0
HOSPT 10109136	Hospitality Law	3	3-0
COMM 10801196	Oral/Interpersonal Communication	3	3-0

Human Resource Management

Program Number: 101162

Associate in Applied Science

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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	Business Organization, Management, and Ethics	3	3-0
HRMGT 10116145	Introduction to Human Resources	3	3-0
HRMGT 10116153	Meeting Facilitation	1	0.5-1
HRMGT 10116168	Employment Law	3	3-0
ENGLISH 10801195	Written Communication	3	3-0
COMM 20810205	Small Group & Interpersonal Communications	3	3-0
Second Semester			
COMPSOFT 10103143	PowerPoint - Beginning	1	0.27-1.5
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
SPEECH 10801198	Speech	3	3-0
MATH 10804144	Math of Finance	3	3-0
Third Semester			
ACCTG 10101111	Accounting 1 - Principles	4	4-0
BUSADM 10102143	Management Techniques	3	3-0
HRMGT 10116148	Labor Relations	3	3-0
ECON 10809195	Economics	3	3-0
PSYCH 10809199	Psychology Of Human Relations	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
COMPSOFT 10103145	Access - Beginning	1	0.27-1.5
MKTG 10104102	Marketing Principles	3	3-0
HRMGT 10116169	Human Resources Capstone	1	1-0

Human Resources

Program Number: 901161CERT

Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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			
<i>Select a minimum of 12 credits from among the following</i>			
BUSADM 10102143	Management Techniques	3	3-0
COMPST 10103133	Excel - Beginning	1	0.27-1.5
COMPST 10103143	PowerPoint - Beginning	1	0.27-1.5
HRMGT 10116145	Introduction to Human Resources	3	3-0
HRMGT 10116147	Wage, Salary & Benefits Admin	3	3-0
HRMGT 10116148	Labor Relations	3	3-0
HRMGT 10116149	Effective Staffing	3	3-0
HRMGT 10116152	Organizational Training and Development	3	3-0
HRMGT 10116153	Meeting Facilitation	1	0.5-1
HRMGT 10116168	Employment Law	3	3-0

Human Services Associate

Program Number: 105203

Associate in Applied Science

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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 Alcohol and Other Drug Abuse	3	3-0
ENGLISH 10801195	Written Communication	3	3-0
<i>Choose one of the following courses. Note: Introduction to Psychology 20-809-231 is a pre-requisite to Developmental Psychology 20-809-233.</i>			
PSYCH 10809199	Psychology Of Human Relations	3	3-0
PSYCH 20809231	Intro Psychology	3	3-0
Second Semester			
HUMSVC 10520116	Group Work Skills	3	3-0
HUMSVC 10520130	Social Change Skills	3	3-0
ENGLISH 10801197	Technical Reporting	3	3-0
MATH 10804107	College Mathematics	3	2-2
SOC 10809197	Contemporary Amer Society	3	3-0
HUMSVC 10520136	Counseling Alcoholics and Other Drug Abusers	3	3-0
Third Semester			
HUMSVC 10520139	Human Services Agency Experience 1	4	0-0
HUMSVC 10520157	Human Services Counseling Skills	3	3-0
HUMSVC 10520188	Human Services Experience Conference 1	3	3-0
<i>Choose from one of the following courses:</i>			
PSYCH 10809127	Human Development	3	3-0
PSYCH 20809233	Developmental Psychology	3	3-0
Fourth Semester			
HUMSVC 10520120	Community Service Agencies	3	3-0
HUMSVC 10520140	Human Services Agency Experience 2	4	0-0
HUMSVC 10520189	Human Services Experience Conference 2	3	3-0
SOC 10809172	Introduction to Diversity Studies	3	3-0
	Elective	3	

IT-Android Applications Development

Program Number: 9015212CER

Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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.

Courses		Credits/Units	Hrs/Week	
			LEC	LAB
ITPROG 10152189	Android Applications Development	3	2	2
ITPROG 10152195	Advanced Android Development	3	2	2

IT-Cisco Certification Professional Certificate

Program Number: 901505CERT

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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			
ITNET 10150155	CCNP Route	3	2-2
Second Semester			
ITNET 10150151	Advanced Networking Topics	3	2-2

IT-Cisco Certified Networking Associate (CCNA)

Program Number: 901502CERT

Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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.

Courses		Credits/Units	Hrs/Week
			LEC-LAB
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
ITNET 10150124	Cisco Networking 4	3	2-2

IT-Cisco Entry Networking Technician

Program Number: 901504CERT

Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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.

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

IT-Cloud Support Associate

Program Number: 101571

Associate in Applied Science

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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	1-0
ITNET 10150121	Intro to Cisco Networking	3	2-2
ITSECUR 10151102	IT Security Awareness	1	1-0
ITPROG 10152109	Python Programming	3	2-2
ITTECSUP 10154184	Enterprise Client	3	2-2
ENGLISH 10801195	Written Communication	3	3-0
PSYCH 10809199	Psychology Of Human Relations	3	3-0
Second Semester			
ITTECSUP 10154118	Infrastructure Automation	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	Preparation for an IT Career	1	1-0
ITSECUR 10151114	Linux Server 2 (Security)	3	2-2
ITCLOUD 10157130	Azure Administration	3	2-2
ITCLOUD 10157135	VMware Certified Professional (VCP)	3	2-2
MATH 10804144	Math of Finance	3	3-0
	Recommended Elective or General Elective	3	
Fourth Semester			
ITCLOUD 10157141	AWS Administration	3	2-2
ITCLOUD 10157155	Cloud Automation/DevOps	3	2-2
ITCLOUD 10157196	Cloud Internship	3	0-0
SOC 10809197	Contemporary American Society	3	3-0
	Recommended Elective or General Elective	3	
List of Recommended Electives			
ITPROG 10152120	Website Development-HTML5	3	2-2
ITPROG 10152124	Introduction to Databases	3	2-2
ITTECSUP 10154172	Windows Server 2	3	2-2

IT-CompTIA A+ Computer Essentials

Program Number: 901542CERT

Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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.

Courses		Credits/Units	Hrs/Week	
			LEC	LAB
ITTECSUP 10154104	A+ Hardware Essentials	3	2	2
ITTECSUP 10154105	A+ Software Essentials	3	2	2

IT-Desktop Support Technician

Program Number: 311541

Embedded Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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 10103137	Word - Beginning	1	0.27-1.5
COMPSOFT 10103136	Word - Intermediate	1	0.27-1.5
IT 10107111	Exploration of Information Technology	1	1-0
ITSECUR 10151102	IT Security Awareness	1	1-0
ITTECSUP 10154104	A+ Hardware Essentials	3	2-2
ITTECSUP 10154122	IT Service Concepts	3	2-2
ENGLISH 10801195	Written Communication	3	3-0
Second Semester			
COMPSOFT 10103133	Excel Beginning	1	0.27-1.5
COMPSOFT 10103139	Excel - Intermediate	1	0.27-1.5
ITTECSUP 10154105	A+ Software Essentials	3	2-2
ITTECSUP 10154146	Help Desk Tools and Techniques	3	2-2
ITTECSUP 10154184	Enterprise Client	3	2-2
COMM 10801196	Oral/Interpersonal Communication	3	3-0

IT-HDI Support Center Analyst

Program Number: 901545CERT

Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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			
ITTECSUP 10154122	IT Service Concepts	3	2-2
ITTECSUP 10154146	Help Desk Tools and Techniques	3	2-2

IT-Help Desk Support Specialist

Program Number: 311547

A One Year Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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	1-0
ITSECUR 10151102	IT Security Awareness	1	1-0
ITTECSUP 10154104	A+ Hardware Essentials	3	2-2
ITTECSUP 10154122	IT Service Concepts	3	2-2
COMPSOFT 10103136	Word - Intermediate	1	0.27-1.5
COMPSOFT 10103137	Word - Beginning	1	0.27-1.5
ENGLISH 10801195	Written Communication	3	3-0
Second Semester			
ITTECSUP 10154105	A+ Software Essentials	3	2-2
ITTECSUP 10154148	Help Desk Specialist Internship	3	0-0
ITTECSUP 10154184	Enterprise Client	3	2-2
COMPSOFT 10103133	Excel - Beginning	1	0.27-1.5
COMPSOFT 10103139	Excel - Intermediate	1	0.27-1.5
COMM 10801196	Oral/Interpersonal Communication	3	3-0

IT-Java Professional Developer

Program Number: 901527CERT

Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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.

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

IT-LAMP Open Source Development

Program Number: 901523CERT

Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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 10152166	PHP Web Development with MySQL	3	2-2
ITTECSUP 10154190	Linux Server 1	3	2-2
Second Semester			
ITPROG 10152157	Ruby on Rails Development	3	2-2
ITPROG 10152167	Advanced PHP and MySQL Web Development	3	2-2

IT-Microsoft Technologies

Program Number: 901547CERT

Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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.

Courses		Credits/Units	Hrs/Week LEC-LAB
ITTECSUP 10154171	Windows Server 1	3	2-2
ITTECSUP 10154172	Windows Server 2	3	2-2
ITTECSUP 10154184	Windows Client	3	2-2
ITTECSUP 10154194	Windows Server Pro	3	2-2

IT-Microsoft Visual Studio.Net

Program Number: 901525CERT

Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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 10152103	Web Application Development Using ASP.NET	3	2-2

IT-Mobile Applications Developer

Program Number: 101528

Associate in Applied Science

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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	1-0
ITSECUR 10151102	IT Security Awareness	1	1-0
ITPROG 10152119	Introduction to Programming with JavaScript	3	2-2
ITPROG 10152120	Website Development-HTML5	3	2-2
ITPROG 10152124	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
ITPROG 10152121	Advanced Website Development--XML	3	2-2
ITPROG 10152125	SQL Database Programming	3	2-2
ITPROG 10152130	Systems Design	3	2-2
COMM 10801196	Oral/Interpersonal Communication	3	3-0
Third Semester			
IT 10107175	Preparation for an IT Career	1	1-0
ITPROG 10152112	Advanced Java Programming	3	2-2
ITPROG 10152131	Systems Analysis	3	2-2
ITPROG 10152139	iOS Development	3	2-2
MATH 10804144	Math of Finance	3	3-0
	Recommended Elective or General Elective	3	
Fourth Semester			
ITPROG 10152168	AJAX and JavaScript Web Development	3	2-2
ITPROG 10152174	IT Mobile Development Internship	3	0-0
ITPROG 10152189	Android Applications Development	3	2-2
SOC 10809197	Contemporary American Society	3	3-0
	Recommended Elective or General Elective	3	
List of Recommended Electives			
ITPROG 10152103	Web Application Development Using ASP.NET	3	2-2
ITPROG 10152143	Advanced iOS Development	3	2-2
ITPROG 10152157	Ruby on Rails Development	3	2-2
ITPROG 10152166	PHP Web Development with MySQL	3	2-2
ITPROG 10152195	Advanced Android Development	3	2-2

IT-Mobile Programmer

Program Number: 311521

Embedded Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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	1-0
ITSECUR 10151102	IT Security Awareness	1	1-0
ITPROG 10152119	Introduction to Programming with JavaScript	3	2-2
ITPROG 10152120	Website Development-XHTML	3	2-2
ITPROG 10152124	Introduction to Database	3	2-2
ENGLISH 10801195	Written Communication	3	3-0
Second Semester			
ITPROG 10152121	Advanced Website Development--XML	3	2-2
ITPROG 10152125	SQL Database Programming	3	2-2
ITPROG 10152130	Object-Oriented Design with UML	3	2-2
PSYCH 10809199	Psychology Of Human Relations	3	3-0

IT-Network Security Specialist

Program Number: 101503

Associate in Applied Science

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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	1-0
ITNET 10150121	Intro to Cisco Networking	3	2-2
ITSECUR 10151102	IT Security Awareness	1	1-0
ITTECSUP 10154184	Enterprise Client	3	2-2
ITTECSUP 10154190	Linux Server 1	3	2-2
ENGLISH 10801195	Written Communication	3	3-0
PSYCH 10809199	Psychology Of Human Relations	3	3-0
Second Semester			
ITNET 10150194	Firewall/VPN Technologies	3	2-2
ITSECUR 10151114	Linux Server 2 (Security)	3	2-2
ITPROG 10152109	Python Programming	3	2-2
ITTECSUP 10154171	Windows Server 1	3	2-2
COMM 10801196	Oral/Interpersonal Communication	3	3-0
ENGLISH 10801197	Technical Reporting	3	3-0
Third Semester			
IT 10107175	Preparation for an IT Career	1	1-0
ITSECUR 10151142	Web Application Security	3	2-2
ITSECUR 10151133	Computer Forensics	3	2-2
ITSECUR 10151137	Intrusion Detection	3	2-2
MATH 10804144	Math of Finance	3	3-0
	Elective	3	
Fourth Semester			
ITSECUR 10151164	Penetration Testing	3	2-2
ITSECUR 10151168	Security Design	3	2-2
ITSECUR 10151197	Network Security Internship	3	0-0
SOC 10809197	Contemporary American Society	3	3-0
	Elective	3	
Recommended Electives			
ITNET 10150122	Cisco Networking 2	3	2-2
ITNET 10150150	VoIP Convergence Fundamentals	3	2-2
ITNET 10150176	Intermediate Networking	3	2-2
ITPROG 10152120	Website Development-HTML5	3	2-2
ITTECSUP 10154188	Windows Active Directory	3	2-2
ITCLOUD 10157135	VMware Certified Professional (VCP)	3	2-2

IT-Network Specialist

Program Number: 101502

Associate in Applied Science

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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	1-0
ITNET 10150121	Intro to Cisco Networking	3	2-2
ITSECUR 10151102	IT Security Awareness	1	1-0
ITTECSUP 10154184	Enterprise Client	3	2-2
ITTECSUP 10154104	A+ Hardware Essentials	3	2-2
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 10154122	IT Service Concepts	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
ENGLISH 10801197	Technical Reporting	3	3-0
Third Semester			
IT 10107175	Preparation for an IT Career	1	1-0
ITNET 10150123	Cisco Networking 3	3	2-2
ITNET 10150124	Cisco Networking 4	3	2-2
ITNET 10150150	VoIP Convergence Fundamentals	3	2-2
MATH 10804144	Math of Finance	3	3-0
SOC 10809197	Contemporary American Society	3	3-0
Fourth Semester			
ITNET 10150151	Advanced Networking Topics	3	2-2
ITNET 10150194	Firewall/VPN Technologies	3	2-2
ITNET 10150195	Networking Internship	3	0-0
ITPROG 10152109	Python Programming	3	2-2
	Elective	3	
Recommended Electives			
<i>Elective must be associate degree (10-level) or college transfer (20-level) courses</i>			
ITSECUR 10151114	Linux Server 2 (Security)	3	2-2
ITPROG 10152120	Website Development-XHTML	3	2-2
ITTECSUP 10154172	Windows Server 2	3	2-2
ITCLOUD 10157135	VMware Certified Professional (VCP)	3	2-2

IT-PHP Professional Web Developer

Program Number: 901528CERT

Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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.

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

IT-Python Programming

Program Number: 9015213CER

Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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.

Courses		Credits/Units	Hrs/Week LEC-LAB
ITPROG 10152109	Python Programming	3	2-2

IT-Systems Administration Specialist

Program Number: 101547

Associate in Applied Science

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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 10103137	Word - Beginning	1	0.27-1.5
COMPSOFT 10103136	Word - Intermediate	1	0.27-1.5
IT 10107111	Exploration of Information Technology	1	1-0
ITSECUR 10151102	IT Security Awareness	1	1-0
ITTECSUP 10154104	A+ Hardware Essentials	3	2-2
ITTECSUP 10154122	IT Service Concepts	3	2-2
ENGLISH 10801195	Written Communication	3	3-0
PSYCH 10809199	Psychology Of Human Relations	3	3-0
Second Semester			
COMPSOFT 10103133	Excel Beginning	1	0.27-1.5
COMPSOFT 10103139	Excel - Intermediate	1	0.27-1.5
ITNET 10150121	Intro to Cisco Networking	3	2-2
ITTECSUP 10154105	A+ Software Essentials	3	2-2
ITTECSUP 10154146	Help Desk Tools and Techniques	3	2-2
ITTECSUP 10154184	Enterprise Client	3	2-2
COMM 10801196	Oral/Interpersonal Communication	3	3-0
Third Semester			
IT 10107175	Preparation for an IT Career	1	1-0
ITTECSUP 10154147	Supporting Emerging Technologies	3	2-2
ITTECSUP 10154171	Windows Server 1	3	2-2
ITTECSUP 10154190	Linux Server 1	3	2-2
MATH 10804144	Math of Finance	3	3-0
	Elective	3	
Fourth Semester			
ITTECSUP 10154118	Infrastructure Automation	3	2-2
ITTECSUP 10154172	Windows Server 2	3	2-2
ITTECSUP 10154198	Systems Administration Internship	3	0-0
SOC 10809197	Contemporary American Society	3	3-0
	Elective	3	
Recommended Electives			
<i>Electives must be associate degree (10-level) or college transfer (20-level) courses.</i>			
ADMINPRF 10106101	Keyboarding Introduction	1	0.27-1.5
ITPROG 10152109	Python Programming	3	2-2
ITPROG 10152120	Website Development-XHTML	3	2-2
ITCLOUD 10157135	VMware Certified Professional (VCP)	3	2-2

IT-VMware Certified Professional Certificate

Program Number: 901573CERT

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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.

Course		Credits/Units	Hrs/Week
			LEC-LAB
ITCLOUD 10157135	VMware Certified Professional (VCP)	3	2-2

IT-Web Software Developer

Program Number: 101524

Associate in Applied Science

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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	1-0
ITSECUR 10151102	IT Security Awareness	1	1-0
ITPROG 10152119	Introduction to Programming with JavaScript	3	2-2
ITPROG 10152120	Website Development-HTML5	3	2-2
ITPROG 10152124	Introduction to Database	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
ITPROG 10152125	SQL Database Programming	3	2-2
ITPROG 10152130	Systems Design	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	Preparation for an IT Career	1	1-0
ITPROG 10152112	Advanced Java Programming	3	2-2
ITPROG 10152121	Advanced Website Development--XML	3	2-2
ITPROG 10152131	Systems Analysis	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	AJAX and JavaScript Web Development	3	2-2
SOC 10809197	Contemporary American Society	3	3-0
	Elective	3	
Recommended Electives			
ITNET 10150121	Intro to Cisco Networking	3	2-2
ITPROG 10152103	Web Application Development Using ASP.NET	3	2-2
ITPROG 10152153	Professional iOS Development	3	2-2
ITPROG 10152157	Ruby on Rails Development	3	2-2
ITPROG 10152167	Advanced PHP and MySQL Web Development	3	2-2
ITPROG 10152189	Android Applications Development	3	2-2

IT-iOS Applications Development

Program Number: 901529CERT

Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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.

Courses		Credits/Units	Hrs/Week	
			LEC	LAB
ITPROG 10152139	iOS Development	3	2	2
ITPROG 10152143	Advanced iOS Development	3	2	2

Individualized Technical Studies

Program Number: 108251

Associate in Applied Science

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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 Core (21-30 credits)		
<i>Select one from each content group:</i>		
Communications	6	
Social Science	3	
Behavior Science	3	
Math/Science	3	
Additional General Studies Courses	6	

Individualized Technical Studies Courses (36-49 credits)

Students are required to complete a minimum of 36 credit hours relevant to career goals. A minimum of 20 of these credits must be focused in one discipline.

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.

Industrial Automation - Post Baccalaureate

Program Number: 904623CERT

Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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.

Courses		Credits/Units	Hrs/Week
			LEC-LAB
IND MECH 10462327	Electronic Circuits for Maintenance	3	0-6
IND MECH 10462324	Programmable Logic Controllers 1	3	0-6
IND MECH 10462326	Programmable Logic Controllers 2	3	0-6
IND MECH 10462328	Interfacing Sensors with Computer Controls	3	0-6
IND MECH 10462340	Manufacturing Systems, Application and Control	3	0-6

Industrial Electrician Apprentice

Program Number: 504131

Apprenticeship Completion

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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 50413542	Tech EI Ind Sem 1	2	3.4-0.6
Second Semester			
ELEC 50413543	Tech EI Ind Sem 2	2	3.4-0.6
Third Semester			
ELEC 50413544	Tech EI Ind Sem 3	2	3.4-0.6
Fourth Semester			
ELEC 50413545	Tech EI Ind Sem 4	2	3.4-0.6
Fifth Semester			
ELEC 50413546	Tech EI Ind Sem 5	2	3.4-0.6
Sixth Semester			
ELEC 50413547	Tech EI Ind Sem 6	2	3.4-0.6
Seventh Semester			
ELEC 50413548	Tech EI Ind Sem 7	2	3.4-0.6
Eighth Semester			
ELEC 50413549	Tech EI Ind Sem 8	2	3.4-0.6
Ninth Semester			
ELEC 50413552	Tech EI Ind Sem 9	2	3.44-0.55
Tenth Semester			
ELEC 50413553	Tech EI Ind Sem 10	2	3.44-0.55

Industrial Maintenance Manufacturing Essentials

Program Number: 906232CERT

Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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.

Courses		Credits/Units	Hrs/Week
			LEC-LAB
INDMANUF 10623100	Safety for Industry	1	0-2
INDMANUF 10623200	Interpreting Engineering Drawings	2	0-4
INDMANUF 10623300	Fluid Power 1 for Industry	1	0-2
MATH 31804381	Machine Tool Math 1	2	4-0
COMM 32801350	Workplace Communication for Industry	1	2-0

Industrial Maintenance Mechanic

Program Number: 314622

A One Year Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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			
IND MECH 10462320	DC/AC Circuits	3	0-6
INDMANUF 10623100	Safety for Industry	1	0-2
INDMANUF 10623200	Interpreting Engineering Drawings	2	0-4
INDMANUF 10623300	Fluid Power 1 for Industry	1	0-2
AUTMFG 10628170	Robotics for Industrial Automation 1	1	0-2
INDMANUF 10623301	Fluid Power 2 for Industry	2	0-4
MACHT 32420330	Metal Processes 1	2	2-2
MATH 31804381	Machine Tool Math 1	2	4-0
MATH 31804382	Machine Tool Math 2	1	2-0
Second Semester			
IND MECH 10462304	Industrial Fluid Distribution Systems	2	0-4
IND MECH 10462306	Metal Processes Maintenance	2	0-4
IND MECH 10462311	Industrial Equipment Mechanisms 2	1	0-2
IND MECH 10462322	Industrial Electricity and Controls	4	0-8
INDMANUF 10623310	Mechanisms for Industry 1	1	0-2
AUTMFG 10628168	Robotics for Industrial Automation 2	2	0.5-3
SMLBUS 10145189	Customer Relations	2	2-0

Industrial Maintenance Technician

Program Number: 324621

A Two Year Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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			
IND MECH 10462320	DC/AC Circuits	3	0-6
INDMANUF 10623100	Safety for Industry	1	0-2
INDMANUF 10623200	Interpreting Engineering Drawings	2	0-4
INDMANUF 10623300	Fluid Power 1 for Industry	1	0-2
INDMANUF 10623301	Fluid Power 2 for Industry	2	0-4
AUTMFG 10628170	Robotics for Industrial Automation 1	1	0-2
MACHT 32420330	Metal Processes 1	2	2-2
MATH 31804381	Machine Tool Math 1	2	4-0
MATH 31804382	Machine Tool Math 2	1	2-0
Second Semester			
IND MECH 10462304	Industrial Fluid Distribution Systems	2	0-4
IND MECH 10462306	Metal Processes Maintenance	2	0-4
IND MECH 10462311	Industrial Equipment Mechanisms 2	1	0-2
IND MECH 10462322	Industrial Electricity and Controls	4	0-8
INDMANUF 10623310	Mechanisms for Industry 1	1	0-2
AUTMFG 10628168	Robotics for Industrial Automation 2	2	0.5-3
SMLBUS 10145189	Customer Relations	2	2-0
Third Semester			
IND MECH 10462314	Industrial Maint Mechanic 1	3	0-6
IND MECH 10462318	Maintenance Management - Industrial Maintenance Program	2	0-4
IND MECH 10462324	Programmable Logic Controllers 1	3	0-6
IND MECH 10462327	Electronic Circuits for Maintenance	3	0-6
IND MECH 10462330	Heating and Air Conditioning 1	3	0-6
IND MECH 10462334	Facilities Maintenance	3	0-6
Fourth Semester			
IND MECH 10462316	Industrial Maintenance Mechanic 2	3	0-6
IND MECH 10462326	Programmable Logic Controllers 2	3	0-6
IND MECH 10462328	Interfacing Sensors with Computer Controls	3	0-6
IND MECH 10462332	Heating and Air Conditioning 2	3	0-6
IND MECH 10462336	Building Automation	3	0-6
IND MECH 10462340	Manufacturing Systems, Application and Control	3	0-6

Industrial Mechanic - HVAC

Program Number: 314623

A One Year Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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			
IND MECH 10462320	DC/AC Circuits	3	0-6
IND MECH 10462330	Heating and Air Conditioning 1	3	0-6
IND MECH 10462334	Facilities Maintenance	3	0-6
INDMANUF 10623100	Safety for Industry	1	0-2
INDMANUF 10623200	Interpreting Engineering Drawings	2	0-4
INDMANUF 10623300	Fluid Power 1 for Industry	1	0-2
MACHT 32420330	Metal Processes 1	2	2-2
MATH 31804381	Machine Tool Math 1	2	4-0
MATH 31804382	Machine Tool Math 2	1	2-0
Second Semester			
IND MECH 10462304	Industrial Fluid Distribution Systems	2	0-4
IND MECH 10462322	Industrial Electricity and Controls	4	0-8
IND MECH 10462332	Heating and Air Conditioning 2	3	0-6
IND MECH 10462336	Building Automation	3	0-6
INDMANUF 10623310	Mechanisms for Industry 1	1	0-2
SMLBUS 10145189	Customer Relations	2	2-0

Injection Mold Set-Up (Plastic) Apprentice

Program Number: 504201

Apprenticeship Completion

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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			
PLASTIC 50463501	Industrial Math 1	0	0.72-0.22
PLASTIC 50463507	Inj Mold Processes 1/Schemat 1	1	2.22-0.72
Second Semester			
PLASTIC 50463502	Industrial Math 2	0	0.72-0.22
PLASTIC 50463508	Inj Mold Processes 2/Schmemat 2	1	2.22-0.72
Third Semester			
PLASTIC 50463503	Industrial Math 3	0	0.72-0.22
PLASTIC 50463509	Inj Mold Processes 3 And Spc 1	1	2.22-0.72
Fourth Semester			
PLASTIC 50463504	Industrial Math 4	0	0.72-0.22
PLASTIC 50463510	Inj Mold Process 4 And Spc 2	1	2.22-0.72
Fifth Semester			
PLASTIC 50463517	Basic Machining Practices 1	1	2.22-0.72
PLASTIC 50463519	Fluid Power 1	0	0.72-0.22
Sixth Semester			
PLASTIC 50463518	Basic Machining Practices 2	1	2.22-0.72
PLASTIC 50463520	Fluid Power 2	0	0.72-0
Seventh Semester			
PLASTIC 50463521	Electricity/Electronics 1	0	0.72-0.22
PLASTIC 50463523	Thermoset/Mold Prac 1 & Insp 1	1	2.22-0.72
Eighth Semester			
PLASTIC 50463522	Electricity/Electronics 2	0	0.72-0.22
PLASTIC 50463524	Thermoset/& Mold Prac 2 & Insp 2	1	2.22-0.72

Interdisciplinary Global Studies

Program Number: 901401CERT

Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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
World Language (3-8 credits)			
<i>Additionally, non-credit enrichment courses in French, Spanish, Chinese, German, Arabic, etc., may count as one credit each.</i>			
SPANISH 10802102	Introductory Spanish Conversation 1	3	3-0
SPANISH 20802211	Spanish 1 - Liberal Arts Transfer	4	3-2
SPANISH 20802212	Spanish 2 - Liberal Arts Transfer	4	3-2
SPANISH 20802213	Spanish 3 - Liberal Arts Transfer	4	3-2
SPANISH 20802214	Spanish 4 - Liberal Arts Transfer	4	3-2
SPANISH 20802215	Spanish 5	3	3-0
FRENCH 20802221	French 1 - Liberal Arts Transfer	4	3-2
FRENCH 20802222	French 2 - Liberal Arts Transfer	4	3-2
FRENCH 20802223	French 3 - Liberal Arts Transfer	4	3-2
FRENCH 20802224	French 4 - Liberal Arts Transfer	4	3-2
CHINESE 20802230	Introduction to Mandarin Chinese	3	2-2
CHINESE 20802231	Introduction to Mandarin Chinese 2	3	2-2
ARABIC 20802240	Intro to Modern Arabic 1	3	2-2
ARABIC 20802241	Intro to Modern Arabic 2	3	2-2

Study Abroad (3-12 credits)

Every student must have one education abroad experience/course or courses taken in a semester-abroad experience.

ECON 99809214	International Economics	3	3-0
GLBL ED 10140101	Traditional Healing in Cross Cultural Context	3	3-0
MKTG 10104187	Global Studies Seminar	3	3-0
HOSPT 10109182	Global Studies Seminar	3	3-0
GLBL ED 10140112	Renewable Energy for the Developing World	3	1-0
SPANISH 20802216	Spanish Culture & Civilization - Liberal Arts Transfer	4	4-0
CHEM 20806290	Renewable Energy for International Development	3	3-0

Study Abroad Opportunities

Courses taken as semester-abroad (appear as 99-xxx-xxx on transcripts).
Canterbury, England

Carlow, Ireland

Cuemavaca, Mexico

Salzburg, Austria

San Jose, Costa Rica

Seville, Spain

Sydney, Australia

<i>Xi'an, China</i>			
Internationalized Courses (0-9 credits)			
<i>Complete up to 9 credits of coursework to bring the certificate to a total of 15 credits.</i>			
801 English			
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 20801223	Peace, Conflict, and Literature: The Arts of the Contact Zone	3	3-0
ENGLISH 20801224	Special Topics in International Literature	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
803 History			
HISTORY 20803204	Making of Modern Europe	3	3-0
HISTORY 20803205	Europe and Modern World	3	3-0
HISTORY 20803206	British History Since 1688 - Liberal Arts Transfer	3	3-0
HISTORY 20803220	History Of West Civilization 1	3	3-0
803 20803221	Hist West Civ 2	3	3-0
HISTORY 20803224	History of Sub Saharan Africa	3	3-0
HISTORY 20803225	World In 20th Century	3	3-0
HISTORY 20803225	World In 20th Century	3	3-0
HISTORY 20803226	East Asian Civilization	3	3-0
HISTORY 20803229	Vietnam/American-1945-Present	3	3-0
HISTORY 20803230	Women In History	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
805 Music			
MUSIC 20805207	World Music	3	3-0
MUSIC 20805232	International Arts Intensive-Music	3	3-0
MUSIC 20805279	World Drumming Ensemble 1	1	0-2
MUSIC 20805280	World Drumming Ensemble 2	1	0-2
806 Natural Science			
BIOLOGY 20806280	Environmental Issues	3	3-0
807 Physical Education			
PHYED 20807260	Martial Arts Fundamentals	1	0-2
809 Social and Behavioral Science			
ECON 20809214	Intro International Econ	3	3-0
POLISCI 20809220	American Foreign Policy	3	3-0
POLISCI 20809223	International Relations	3	3-0
ECON 20809228	Environmental Economics	3	3-0
POLISCI 20809243	Comparative Politics	3	3-0
POLISCI 20809244	Russian Politics	3	3-0
POLISCI 20809245	Latin American Politics	3	3-0
POLISCI 20809246	African Politics	3	3-0
POLISCI 20809247	Introduction to East Asian Politics	3	3-0
SOC 20809251	Sociology of the Middle East and North Africa	3	3-0
PHILOS 20809263	East/West World View - Liberal Arts Transfer	3	3-0
809 20809278	Intro to Buddhism	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
ANTHRO 20809286	The Anthropology of Globalization & Multiculturalism	3	3-0
810 Speech/Drama			
DRAMA 20810232	International Arts Intensive-Theatre	3	3-0
815 Art			
ART 20815200	Art History: Ancient to Medieval	3	3-0
ART 20815210	Art History: Renaissance to Modern	3	3-0
ART 20815211	Art History: Women In Art	3	3-0
Other Disciplines			
BUSADM 10102150	Introduction to International Business	3	3-0
MKTG 10104180	International Marketing	3	3-0
FSHNMKTG 10104183	International Business in Fashion	2	0-4
PARALEG 10110171	Law & Contemporary Problems	3	3-0
GLBL ED 10140107	Perspectives on Study Abroad	1	1-0
INSMGT 10162136	Current Issues in Risk Management and Insurance	1	1-0
CUL ARTS 10316112	Cuisines of the World	4	0-4
INDSGN 10304129	History of Interior Design	3	2-2
NRSAD 10543291	Community Cultural Health Care	3	1-0
LANG INT 31538303	Cultural Competency and the Medical Setting	2	4-0
LANG INT 31538304	Introduction to Interpreting in Spanish	2	4-0
LANG INT 31538305	Introduction to Basic Translation Skills in Spanish	2	4-0
COOKING 60303652	Foreign/Ethnic Foods	0	0.22-0.88

Interior Design

Program Number: 103041

An Associate in Applied Arts D

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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
Summer (prior to start of program)			
INDSGN 10304100	Survey of the Interior Design Profession	1	1-0
First Semester			
INDSGN 10304102	Fundamentals of Design	3	1-4
INDSGN 10304104	Basic Architectural Drawing	3	1-4
INDSGN 10304105	Building and Furniture Construction	3	2-2
INDSGN 10304107	Interior Design Textiles	3	2-2
ENGLISH 10801195	Written Communication	3	3-0
MATH 10804123	Math with Business Applications	3	3-0
Second Semester			
INDSGN 10304120	Advanced Architectural Drawing	2	0-4
INDSGN 10304125	Residential Design 1	3	1-4
INDSGN 10304127	Materials and Finishes	2	1-2
INDSGN 10304129	History of Interior Design	3	2-2
INDSGN 10304161	Visual Communication for Interior Design	3	1-4
SPEECH 10801198	Speech	3	3-0
Third Semester			
INDSGN 10304133	Commercial Design	5	1-8
INDSGN 10304135	Lighting	2	1-2
INDSGN 10304142	Sales & Professional Practice	3	2-2
INDSGN 10304146	Trends and Issues in Interior Design	2	1-2
COMM 10801196	Oral/Interpersonal Communication	3	3-0
PSYCH 10809199	Psychology Of Human Relations	3	3-0
Fourth Semester			
INDSGN 10304132	Kitchen & Bath Design	5	1-8
INDSGN 10304143	Residential Design 2	3	2-2
INDSGN 10304145	Interior Design Internship	2	0-0
INDSGN 10304147	Portfolio Development	1	0-0
PHILOS 10809166	Intro to Ethics: Theory & App	3	3-0
SOC 10809197	Contemporary Amer Society	3	3-0

Introduction to the Instructional Assistant Career

Program Number: 805221

Advanced Technical Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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.

Courses		Credits/Units	Hrs/Week
			LEC-LAB
EDSVC 10522103	IA: Introduction to Educational Practices	3	3-0
EDSVC 10522106	IA: Child and Adolescent Development	3	2-2
EDSVC 10522107	IA: Overview of Special Education	3	3-0
EDSVC 10522111	IA: Guiding and Managing Behavior	3	2-2

Ironworker Apprentice

Program Number: 504371

Apprenticeship Completion

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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			
STEELIRN 50437535	Combined Weld for IW	2	1-3
STEELIRN 50437570	Reinforcing Steel/Post Tensioning/Math	2	3-1
Second Semester			
STEELIRN 50437536	Gmaw/Fcaw Welding	2	1-3
STEELIRN 50437571	Ornamental	2	3-1
Third Semester			
STEELIRN 50437537	Gtaw (Gas Tungson Arc Welding)	2	1-3
STEELIRN 50437703	Structural Steel Erection 1	3	3-3

Jail Officer

Program Number: 905042CERT

Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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 30504350	Basic Jail Officer Certification	4	6.66-2.22

Journalism

Program Number: 908012CERT

Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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 20801246	Investigative Journalism	3	3-0
JOURNAL 20801253	Documentary Storytelling	3	2-2
JOURNAL 20801262	Social Media Writing	3	3-0
JOURNAL 20801271	Journalism Practicum 1	1	2-0
Electives			
<i>Students must also complete at least a minimum 5 credits from the following electives</i>			
PHOTO 10203173	Photojournalism	2	0-4
VICOM 10206147	Introduction to DSLR Video Production	2	0-4
JOURNAL 20801251	Introduction to Mass Communication	4	4-0
JOURNAL 20801252	World Issues Journalism	3	3-0
JOURNAL 20801272	Journalism Practicum 2	1	2-0
JOURNAL 20801273	Journalism Practicum 3	1	2-0
JOURNAL 20801274	Journalism Practicum 4	1	2-0
ART 20815239	Digital Photography	3	0-6
GRDSGN 10201181	Introduction to Computer Graphics	3	0-6
GRDSGN 10201177	WebPage Design	3	0-6

Liberal Arts Transfer

Program Number: 208001-A

Associate in Arts

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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
English and Speech (9 credits)			
<i>Six credits must be in composition - English 1 and one other composition course (English 2 recommended) - and three credits must be in public speaking.</i>			
<i>Composition Courses</i>			
ENGLISH 20801201	English 1	3	3-0
ENGLISH 20801202	English 2	3	3-0
JOURNAL 20801245	Introduction to Journalism	3	3-0
JOURNAL 20801246	Investigative Journalism	3	3-0
JOURNAL 20801251	Introduction to Mass Communication	4	4-0
<i>Public Speaking Courses</i>			
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
Health/Wellness/Physical Education (1 credit)			
PHYED 20807210	Conditioning/Weight Training	1	0-2
PHYED 20807219	Introduction to Kinesiology	2	2-0
PHYED 20807223	Beginning Volleyball	1	0-2
PHYED 20807229	Swimming for Fitness	1	0-2
PHYED 20807230	Beginning Swimming	1	0-2
PHYED 20807232	Water Exercise	1	0-2
PHYED 20807233	Lifeguard Training	2	1-2
PHYED 20807236	Beginning Tennis	1	0-2
PHYED 20807245	Social Dance	1	0-2
PHYED 20807247	Jazz 1	1	0-2
PHYED 20807248	Ballet	1	0-2
PHYED 20807250	Badminton	1	0-2
PHYED 20807252	Beginning Pilates	1	0-2
PHYED 20807254	Beginning Yoga	1	0-2
PHYED 20807255	Prev/Care Athletic Injuries	2	1-2
PHYED 20807264	Intermediate Yoga	1	0-2
PHYED 20807266	Wellness Today	2	1-2
PHYED 20807267	Health & Fitness for Life	1	0-2
PHYED 20807268	Blueprint for Healthy Living	2	2-0
PHYED 20807271	Bicycle Conditioning	1	0-2
PHYED 20807289	Aerobics/Weight Training	1	0-2
PHYED 20807213	Co-Ed Flag Football	1	0-2
PHYED 20807214	Pickleball	1	0-2

Humanities/Fine Arts (15 credits)

Completion of courses from at least three disciplines is required. Choose courses from the following disciplines: art, drama, film, literature, music, philosophy, world languages, writing and

communication, and interdisciplinary humanities. A maximum of three credits of studio/hands-on courses in art, creative writing, drama, and music may be applied.

Art Courses

ART 20815202	Color & Design	3	0-6
ART 20815203	3-Dimensional Design	3	0-6
ART 20815205	Drawing Fundamentals - Liberal Arts Transfer	3	0-6
ART 20815208	Contemporary Art Survey	3	0-6
ART 20815214	Modern Art Survey	3	0-6
ART 20815215	Drawing 2	3	0-6
ART 20815218	Independent Projects in Studio Art	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 20815232	Digital Design Fundamentals	3	0-6
ART 20815234	Photography - Liberal Arts Transfer	3	0-6
ART 20815235	Creative Photography	3	0-6
ART 20815236	Advanced Creative Photography	3	0-6
ART 20815239	Digital Photography	3	0-6
ART 20815241	Painting 1 - Liberal Arts Transfer	3	0-6
ART 20815242	Painting 2	3	0-6
ART 20815253	Jewelry 1	3	0-6
ART 20815254	Jewelry 2 - Liberal Arts Transfer	3	0-6
ART 20815256	Art Metal Welding	3	0-6
ART 20815290	Ceramics 1 - Liberal Arts Transfer	3	0-6
ART 20815291	Ceramics 2 - Liberal Arts Transfer	3	0-6
ART 20815292	Watercolor 1	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 20815297	Watercolor 2	3	0-6
ART 20815200	Art History: Ancient to Medieval	3	3-0
ART 20815210	Art History: Renaissance to Modern	3	3-0
ART 20815211	Art History: Women In Art	3	3-0
<i>Writing and Communication Courses</i>			
JOURNAL 20801251	Introduction to Mass Communication	4	4-0
COMM 20810205	Small Group & Interpersonal Communications	3	3-0
ENGLISH 20801240	Creative Writing	3	3-0
ENGLISH 20801241	Creative Writing/Fiction	3	3-0
ENGLISH 20801242	Creative Writing/Drama	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
JOURNAL 20801246	Investigative Journalism	3	3-0
ENGLISH 20801249	Film Writing	3	3-0
JOURNAL 20801252	World Issues Journalism	3	3-0
JOURNAL 20801253	Documentary Storytelling	3	2-2
JOURNAL 20801262	Social Media Writing	3	3-0
JOURNAL 20801271	Journalism Practicum 1	1	2-0
JOURNAL 20801272	Journalism Practicum 2	1	2-0
JOURNAL 20801273	Journalism Practicum 3	1	2-0
JOURNAL 20801274	Journalism Practicum 4	1	2-0
<i>Drama Courses</i>			
DRAMA 20810235	Stagecraft 1	3	3-0
DRAMA 20810236	Stagecraft 2	3	3-0
DRAMA 20810260	Drama Practicum	1	2-0
DRAMA 20810262	Acting 1	3	3-0
DRAMA 20810263	Acting 2	3	3-0
DRAMA 20810270	Movement Theory & Training for Actors	1	0-2
DRAMA 20810230	Intro To Theatre	3	3-0
DRAMA 20810238	Cultural Diversity in Contemporary American Theater	3	3-0

<i>Film Courses</i>			
FILM 20810250	Introduction to Film	3	2-2
FILM 20810254	History Of World Cinema	3	2-2
<i>Literature Courses</i>			
ENGLISH 20801204	Introduction to Literature	3	3-0
ENGLISH 20801207	World Indigenous Literatures	3	3-0
ENGLISH 20801211	Gay & Lesbian 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 20801215	British Literature 1	3	3-0
ENGLISH 20801216	British Literature 2	3	3-0
ENGLISH 20801217	American Literature 1	3	3-0
ENGLISH 20801218	American 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 20801221	Literature and Popular Culture	3	3-0
ENGLISH 20801222	U.S. Latino Literature	3	3-0
ENGLISH 20801223	Peace, Conflict, and Literature: The Arts of the Contact Zone	3	3-0
ENGLISH 20801226	Introduction to African Literature	3	3-0
ENGLISH 20801227	Children's Literature	3	3-0
ENGLISH 20801229	Contemporary Lit	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 Literature in Translation	3	3-0
ENGLISH 20801250	Women In Literature	3	3-0
LITTRANS 20802250	Literature in Translation	3	3-0
<i>Music Courses</i>			
MUSIC 20805205	Class Voice 1	1	1-0
MUSIC 20805206	Class Voice 2	1	1-0
MUSIC 20805209	Swing Choir	2	2-0
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 20805270	Madison College Chorale	1	0-2
MUSIC 20805271	Madison College Chorale 2	1	0-2
MUSIC 20805272	Madrigal Choir	1	0-2
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
MUSIC 20805207	World Music	3	3-0
MUSIC 20805227	Music Appreciation	3	3-0
MUSIC 20805260	Music Theory Fundamentals	3	3-0
MUSIC 20805261	Music Theory 1	3	3-0
MUSIC 20805262	Music Theory 2	3	3-0
MUSIC 20805263	Jazz History	3	3-0
MUSIC 20805267	Aural Skills 1	1	0-2
MUSIC 20805268	Aural Skills 2	1	0-2
MUSIC 20805278	Hist Pop/Rock Music	3	3-0
<i>Philosophy Courses</i>			
PHILOS 20809258	Philosophy Through Film	3	3-0
PHILOS 20809259	Classics in Philosophy	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 - Liberal Arts Transfer	3	3-0
PHILOS 20809264	Introduction to Logic and Critical Thinking	3	3-0
PHILOS 20809266	Ethics In Medicine	3	3-0
PHILOS 20809268	Social Ethics	3	3-0
PHILOS 20809276	Business Ethics	3	3-0
<i>World Languages Courses</i>			
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 20802217	Spanish for Heritage Speakers	4	3-2
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	Introduction to Mandarin Chinese	3	2-2
CHINESE 20802231	Introduction to Mandarin Chinese 2	3	2-2
ARABIC 20802240	Intro to Modern Arabic 1	3	2-2
ARABIC 20802241	Intro to Modern Arabic 2	3	2-2
<i>Interdisciplinary Humanities Courses</i>			
LDRSHP 20810267	Leadership As An Art	3	3-0
Mathematics and Natural Science (11 credits)			
<i>One mathematics course at the level of Intermediate Algebra or higher meets the minimum mathematics requirement. One biological science course and one physical science is required. One of the science courses must include a laboratory. The remaining credits to fulfill the requirement can be chosen from any of the listed mathematics and natural science courses.</i>			
<i>Mathematics Courses</i>			
MATH 20804201	Intermediate Algebra	4	3-2
MATH 20804202	Intermediate Algebra I	3	2-2
MATH 20804203	Intermediate Algebra 2	3	2-2
MATH 20804208	Computer Science	4	3-2
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
MATH 20804220	Finite Math	3	2-2
MATH 20804221	Calculus Methods for Business and Social Sciences I	5	5-0
MATH 20804223	Calculus Methods for Business and Social Sciences II	3	2-2
MATH 20804228	Calculus w Algebra & Trigonometry 1	5	5-0
MATH 20804229	Math Analysis	5	5-0
MATH 20804230	Calculus w Algebra & Trigonometry II	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	1-4
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
<i>Mathematics Elective Courses</i>			
MATH 10804134	Mathematical Reasoning	3	2-2
MATH 20804200	Principles Of Geometry	3	1-4
<i>Biology Courses - with Lab</i>			
BIOLOGY 20806203	Introductory Zoology	5	4-2
BIOLOGY 20806206	General Anatomy and Physiology	4	3-2

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 20806262	Anatomy and Physiology for Exercise Lab	1	0-2
BIOLOGY 20806271	Cellular and Molecular Biology	5	3-4
BIOLOGY 20806272	Organismal Biology	5	3-4
BIOLOGY 20806273	Microbiology-University Medical	5	3-4
BIOLOGY 20806274	General Microbiology	5	3-4
BIOLOGY 20806286	Environmental Science	4	2-4
<i>Biology Courses - without Lab</i>			
BIOLOGY 20806204	Biological Greek and Latin Terminology	3	3-0
BIOLOGY 20806280	Environmental Issues	3	3-0
BIOLOGY 20806281	Ecology/Conservation Biology	3	3-0
<i>Chemistry Courses - with Lab</i>			
CHEM 20806200	Liberal Arts Chemistry	5	3-4
CHEM 20806201	General, Organic & Biological Chemistry	5	4-2
CHEM 20806209	College Chemistry 1	5	3-4
CHEM 20806212	College Chemistry 2	5	3-4
CHEM 20806213	Organic Chemistry 1	5	3-4
CHEM 20806214	Organic Chemistry 2	5	3-4
CHEM 20806216	Chemistry for Biotechnology	3	2-2
<i>Physical Science Courses - with Lab</i>			
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
EARTHSCI 20806244	General Geology	4	3-2
EARTHSCI 20806247	Earth Science Lab	1	0-2
EARTHSCI 20806248	Weather and Climate Laboratory	1	0-2
ASTRON 20806253	Astronomy: The Solar System	4	3-2
ASTRON 20806254	Astronomy: Stars & Galaxies	4	3-2
EARTHSCI 20806249	Geologic Evolution of the Earth	4	3-2
EARTHSCI 20806251	Undergraduate Geology Field Experience	2	0-4
<i>Physical Science Courses - without Lab</i>			
PHYSICS 20806220	Physics of Everyday Life	3	3-0
PHYSICS 20806232	Statics	3	2-2
EARTHSCI 20806241	Earth Science	3	3-0
EARTHSCI 20806245	Weather And Climate	3	3-0
EARTHSCI 20806246	Survey of Oceanography	3	3-0
EARTHSCI 20806249	Geologic Evolution of the Earth	4	3-2
EARTHSCI 20806250	Climate and Climate Change	3	3-0
EARTHSCI 20806252	Natural Hazards	3	3-0
PHYSICS 20806291	Introduction to Renewable Energy	3	3-0
Social Science (15 credits)			
<i>Completion of courses from at least three disciplines is required. Choose courses from the following disciplines: anthropology, economics, history, political science, psychology, sociology, and interdisciplinary social science.</i>			
<i>Anthropology Courses</i>			
ANTHRO 20809279	Introduction to the Archaeology of Native North America	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
ANTHRO 20809286	The Anthropology of Globalization & Multiculturalism	3	3-0
ANTHRO 20809287	Anthropology of Islamic Societies and Cultures	3	3-0
ANTHRO 20809288	Human Biology & Physical Anthropology	3	3-0
ANTHRO 20809289	World Regional Geography	3	3-0
ANTHRO 20809292	Agriculture, Food, and Society	3	3-0

<i>Economics Courses</i>			
ECON 20809211	Macro Economics	3	3-0
ECON 20809212	Micro Economics	3	3-0
ECON 20809214	Intro International Econ	3	3-0
ECON 20809228	Environmental Economics	3	3-0
ECON 20809269	Energy And Society	3	3-0
<i>Economics Elective Course</i>			
ECON 10809195	Economics	3	3-0
<i>History Courses</i>			
HISTORY 20803204	Renaissance, Reformation, and Revolution	3	3-0
HISTORY 20803205	Europe and Modern World	3	3-0
HISTORY 20803211	Am Hist 1607-1865	3	3-0
HISTORY 20803212	Am Hist 1865-Pres.	3	3-0
HISTORY 20803214	Native American History - Liberal Arts Transfer	3	3-0
HISTORY 20803215	American History Since 1945	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 20803230	Public Man, Private Woman: Bronze Age to Glass Ceiling	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 20803240	Afro-American History	3	3-0
<i>Political Science Courses</i>			
POLISCI 20809218	Law and Society	3	3-0
POLISCI 20809220	American Foreign Policy	3	3-0
POLISCI 20809221	American Ntl Govt	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 20809243	Comparative Politics	3	3-0
POLISCI 20809244	Russian Politics	3	3-0
POLISCI 20809245	Latin American Politics	3	3-0
POLISCI 20809246	African Politics	3	3-0
POLISCI 20809247	East Asian Politics	3	3-0
POLISCI 20809248	Politics of India	3	3-0
POLISCI 20809254	Political Science Research Methods	3	3-0
<i>Psychology Courses</i>			
PSYCH 20809201	Human Sexuality	3	3-0
PSYCH 20809225	Social Psychology	3	3-0
PSYCH 20809231	Intro Psychology	3	3-0
PSYCH 20809233	Developmental Psychology	3	3-0
PSYCH 20809237	Abnormal Psych	3	3-0
PSYCH 20809239	Child Human Development	3	3-0
PSYCH 20809249	Educational Psychology	3	3-0
<i>Sociology Courses</i>			
SOC 20809202	Social Problems	3	3-0
SOC 20809203	Intro Sociology	3	3-0
SOC 20809204	Marriage and the Family	3	3-0
SOC 20809207	Criminology	3	3-0
SOC 20809229	Social Movements	3	3-0
SOC 20809230	Statistics for the Social Sciences	4	4-0
SOC 20809240	Introduction to Latin America	3	3-0
SOC 20809251	Sociology of the Middle East and North Africa	3	3-0
SOC 20809252	Race and Ethnicity in the U.S.	3	3-0
SOC 20809253	Sociology of Gender	3	3-0
SOC 20809275	Sociology of Religion	3	3-0
SOC 20809277	Couple Relationships	1	1-0
SOC 20809291	Technology and Society	3	3-0

<i>Interdisciplinary Social Science Courses</i>			
SOCSCI 20809206	Introduction to Women's Studies	3	3-0
SOCSCI 20809210	Psychology of Men	3	3-0
SOCSCI 20809234	Psychology of Women	3	3-0
Electives (13 credits)			
<i>Select college transfer courses beyond the minimum requirements. A maximum of one credit of a physical education activity course may be selected.</i>			
Ethnic Studies (One course)			
<i>Course may also count toward Humanities/Fine Arts, Social Science, or Electives.</i>			
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	Native American History - Liberal Arts Transfer	3	3-0
HISTORY 20803240	Afro-American History	3	3-0
SOC 20809252	Race and Ethnicity in the U.S.	3	3-0
ANTHRO 20809283	Cultural Anthropology & Human Diversity	3	3-0
ANTHRO 20809286	The Anthropology of Globalization & Multiculturalism	3	3-0
Literature (One course)			
<i>The course may also count toward fulfilling the Humanities and Fine Arts or Electives requirements.</i>			
ENGLISH 20801204	Introduction to Literature	3	3-0
ENGLISH 20801207	World Indigenous Literatures	3	3-0
ENGLISH 20801211	Gay & Lesbian 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 20801215	British Literature 1	3	3-0
ENGLISH 20801216	British Literature 2	3	3-0
ENGLISH 20801217	American Literature 1	3	3-0
ENGLISH 20801218	American 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 20801221	Literature and Popular Culture	3	3-0
ENGLISH 20801222	U.S. Latino Literature	3	3-0
ENGLISH 20801223	Peace, Conflict, and Literature: The Arts of the Contact Zone	3	3-0
ENGLISH 20801226	Introduction to African Literature	3	3-0
ENGLISH 20801227	Children's Literature	3	3-0
ENGLISH 20801229	Contemporary Lit	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 Literature in Translation	3	3-0
ENGLISH 20801250	Women In Literature	3	3-0
LITTRANS 20802250	Literature in Translation	3	3-0
World Languages (One course)			
<i>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.</i>			
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	Introduction to Mandarin Chinese	3	2-2
CHINESE 20802231	Introduction to Mandarin Chinese 2	3	2-2
ARABIC 20802240	Intro to Modern Arabic 1	3	2-2
ARABIC 20802241	Intro to Modern Arabic 2	3	2-2

Liberal Arts Transfer

Program Number: 208001-E

Associate in Science

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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
English and Speech (9 credits)			
<i>Six credits must be in composition - English 1 and English 2 - and three credits must be in public speaking.</i>			
Health/Wellness/Physical Education (1 credit)			
Humanities/Fine Arts (9 credits)			
<i>Courses must be from at least two disciplines; one course in literature is required. Select from art appreciation/history, creative writing, drama, film, literature, communications, music history or theory, philosophy, and world languages. A maximum of three credits of studio/hands-on courses in art, creative writing, drama, and music may be applied.</i>			
Mathematics and Natural Science (25 credits)			
MATH 20804231	Calculus and Analytic Geometry 1	5	5-0
MATH 20804232	Calculus and Analytic Geometry 2	5	5-0
CHEM 20806209	College Chemistry 1	5	3-4
CHEM 20806212	College Chemistry 2	5	3-4
PHYSICS 20806223	University Physics 1-Calculus-Based	5	2-6
Social Science (6 credits)			
<i>Select from at least two disciplines: anthropology, economics, history, political science, psychology, sociology, and interdisciplinary social science. Requirement is set up for one depth and one breadth course each in a single discipline.</i>			
Engineering-Related Courses (14 credits)			
INDMANUF 20623260	Introduction to Engineering	3	2-2
MATH 20804233	Calculus 3	5	5-0
PHYSICS 20806224	University Physics 2-Calculus Based	5	2-6
ELECT 20605252	Introduction to Computer Engineering	3	1-4
ELECT 20605270	AC/DC Circuit Techniques and Principles	3	1-4
MECTEC 20606231	Introductory Engineering Graphics	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
MATH 20804208	Computer Science	4	3-2
MATH 20804241	Introduction to Engineering Statistics	3	1-4
BIOLOGY 20806203	Introductory Zoology	5	4-2
CHEM 20806213	Organic Chemistry 1	5	3-4
CHEM 20806214	Organic Chemistry 2	5	3-4
EARTHSCI 20806244	General Geology	4	3-2
BIOLOGY 20806274	General Microbiology	5	3-4
PHYSICS 20806232	Statics	3	2-2

Ethnic Studies

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

World Languages

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.

Liberal Arts Transfer

Program Number: 208001-S

Associate in Science

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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
English and Speech (9 credits)			
<i>Six credits must be in composition - English 1 and one other composition course (English 2 recommended) - and three credits must be in public speaking.</i>			
<i>Composition Courses</i>			
ENGLISH 20801201	English 1	3	3-0
ENGLISH 20801202	English 2	3	3-0
JOURNAL 20801245	Introduction to Journalism	3	3-0
JOURNAL 20801246	Investigative Journalism	3	3-0
JOURNAL 20801251	Introduction to Mass Communication	4	4-0
<i>Public Speaking Courses</i>			
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
Health/Wellness/Physical Education (1 credit)			
PHYED 20807210	Conditioning/Weight Training	1	0-2
PHYED 20807219	Introduction to Kinesiology	2	2-0
PHYED 20807223	Beginning Volleyball	1	0-2
PHYED 20807229	Swimming for Fitness	1	0-2
PHYED 20807230	Beginning Swimming	1	0-2
PHYED 20807232	Water Exercise	1	0-2
PHYED 20807233	Lifeguard Training	2	1-2
PHYED 20807236	Beginning Tennis	1	0-2
PHYED 20807245	Social Dance	1	0-2
PHYED 20807247	Jazz 1	1	0-2
PHYED 20807248	Ballet	1	0-2
PHYED 20807250	Badminton	1	0-2
PHYED 20807252	Beginning Pilates	1	0-2
PHYED 20807254	Beginning Yoga	1	0-2
PHYED 20807255	Prev/Care Athletic Injuries	2	1-2
PHYED 20807264	Intermediate Yoga	1	0-2
PHYED 20807266	Wellness Today	2	1-2
PHYED 20807267	Health & Fitness for Life	1	0-2
PHYED 20807268	Blueprint for Healthy Living	2	2-0
PHYED 20807271	Bicycle Conditioning	1	0-2
PHYED 20807289	Aerobics/Weight Training	1	0-2
PHYED 20807213	Co-Ed Flag Football	1	0-2
PHYED 20807214	Pickleball	1	0-2

Humanities/Fine Arts (9 credits)

Completion of courses from at least two disciplines is required. Choose courses from the following disciplines: art, drama, film, literature, music, philosophy, world languages, writing and

communication, and interdisciplinary humanities. A maximum of three credits of studio/hands-on courses in art, creative writing, drama, and music may be applied.

Art Courses

ART 20815201	Basic Design	3	0-6
ART 20815202	Color & Design	3	0-6
ART 20815203	3-Dimensional Design	3	0-6
ART 20815205	Drawing Fundamentals - Liberal Arts Transfer	3	0-6
ART 20815208	Contemporary Art Survey	3	0-6
ART 20815214	Modern Art Survey	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 20815232	Digital Design Fundamentals	3	0-6
ART 20815234	Photography - Liberal Arts Transfer	3	0-6
ART 20815236	Advanced Creative Photography	3	0-6
ART 20815239	Digital Photography	3	0-6
ART 20815241	Painting 1 - Liberal Arts Transfer	3	0-6
ART 20815242	Painting 2	3	0-6
ART 20815253	Jewelry 1	3	0-6
ART 20815254	Jewelry 2 - Liberal Arts Transfer	3	0-6
ART 20815256	Art Metal Welding	3	0-6
ART 20815290	Ceramics 1 - Liberal Arts Transfer	3	0-6
ART 20815291	Ceramics 2 - Liberal Arts Transfer	3	0-6
ART 20815292	Watercolor 1	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 20815297	Watercolor 2	3	0-6
ART 20815200	Art History: Ancient to Medieval	3	3-0
ART 20815210	Art History: Renaissance to Modern	3	3-0
ART 20815211	Art History: Women In Art	3	3-0
<i>Writing and Communication Courses</i>			
JOURNAL 20801251	Introduction to Mass Communication	4	4-0
COMM 20810205	Small Group & Interpersonal Communications	3	3-0
ENGLISH 20801240	Creative Writing	3	3-0
ENGLISH 20801241	Creative Writing/Fiction	3	3-0
ENGLISH 20801242	Creative Writing/Drama	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
JOURNAL 20801246	Investigative Journalism	3	3-0
ENGLISH 20801249	Film Writing	3	3-0
JOURNAL 20801252	World Issues Journalism	3	3-0
JOURNAL 20801253	Documentary Storytelling	3	2-2
JOURNAL 20801262	Social Media Writing	3	3-0
JOURNAL 20801271	Journalism Practicum 1	1	2-0
JOURNAL 20801272	Journalism Practicum 2	1	2-0
JOURNAL 20801273	Journalism Practicum 3	1	2-0
JOURNAL 20801274	Journalism Practicum 4	1	2-0
<i>Drama Courses</i>			
DRAMA 20810235	Stagecraft 1	3	3-0
DRAMA 20810236	Stagecraft 2	3	3-0
DRAMA 20810260	Drama Practicum	1	2-0
DRAMA 20810262	Acting 1	3	3-0
DRAMA 20810263	Acting 2	3	3-0
DRAMA 20810270	Movement Theory & Training for Actors	1	0-2
DRAMA 20810230	Intro To Theatre	3	3-0
DRAMA 20810238	Cultural Diversity in Contemporary American Theater	3	3-0
<i>Film Courses</i>			

FILM 20810250	Introduction to Film	3	2-2
FILM 20810254	History Of World Cinema	3	2-2
<i>Literature Courses</i>			
ENGLISH 20801204	Introduction to Literature	3	3-0
ENGLISH 20801207	World Indigenous Literatures	3	3-0
ENGLISH 20801211	Gay & Lesbian 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 20801215	British Literature 1	3	3-0
ENGLISH 20801216	British Literature 2	3	3-0
ENGLISH 20801217	American Literature 1	3	3-0
ENGLISH 20801218	American 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 20801221	Literature and Popular Culture	3	3-0
ENGLISH 20801222	U.S. Latino Literature	3	3-0
ENGLISH 20801223	Peace, Conflict, and Literature: The Arts of the Contact Zone	3	3-0
ENGLISH 20801226	Introduction to African Literature	3	3-0
ENGLISH 20801227	Children's Literature	3	3-0
ENGLISH 20801229	Contemporary Lit	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 Literature in Translation	3	3-0
ENGLISH 20801250	Women In Literature	3	3-0
LITTRANS 20802250	Literature in Translation	3	3-0
<i>Music Courses</i>			
MUSIC 20805205	Class Voice 1	1	1-0
MUSIC 20805206	Class Voice 2	1	1-0
MUSIC 20805209	Swing Choir	2	2-0
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 20805270	Madison College Chorale	1	0-2
MUSIC 20805271	Madison College Chorale 2	1	0-2
MUSIC 20805272	Madrigal Choir	1	0-2
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
MUSIC 20805207	World Music	3	3-0
MUSIC 20805227	Music Appreciation	3	3-0
MUSIC 20805260	Music Theory Fundamentals	3	3-0
MUSIC 20805261	Music Theory 1	3	3-0
MUSIC 20805262	Music Theory 2	3	3-0
MUSIC 20805263	Jazz History	3	3-0
MUSIC 20805267	Aural Skills 1	1	0-2
MUSIC 20805268	Aural Skills 2	1	0-2
MUSIC 20805278	Hist Pop/Rock Music	3	3-0
<i>Philosophy Courses</i>			
PHILOS 20809258	Philosophy Through Film	3	3-0
PHILOS 20809259	Classics in Philosophy	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 - Liberal Arts Transfer	3	3-0
PHILOS 20809264	Introduction to Logic and Critical Thinking	3	3-0
PHILOS 20809266	Ethics In Medicine	3	3-0
PHILOS 20809268	Social Ethics	3	3-0
PHILOS 20809276	Business Ethics	3	3-0
<i>World Languages Courses</i>			
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 20802217	Spanish for Heritage Speakers	4	3-2
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	Introduction to Mandarin Chinese	3	2-2
CHINESE 20802231	Introduction to Mandarin Chinese 2	3	2-2
ARABIC 20802240	Intro to Modern Arabic 1	3	2-2
ARABIC 20802241	Intro to Modern Arabic 2	3	2-2
<i>Interdisciplinary Humanities Courses</i>			
LDRSHP 20810267	Leadership As An Art	3	3-0
Mathematics and Natural Science (20 credits)			
<i>One mathematics course at the level of College Algebra or higher meets the minimum mathematics requirement. One biological science course and one physical science is required. Both of the science courses must include a laboratory. The remaining credits to fulfill the requirement can be chosen from any of the listed mathematics and science courses.</i>			
<i>Mathematics Courses - meets minimum mathematics requirement</i>			
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 20804223	Calculus Methods for Business and Social Sciences II	3	2-2
MATH 20804228	Calculus w Algebra & Trigonometry 1	5	5-0
MATH 20804229	Math Analysis	5	5-0
MATH 20804230	Calculus w Algebra & Trigonometry II	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	1-4
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
<i>Mathematics Courses - may be used to meet the 20 credit requirement</i>			
MATH 10804134	Mathematical Reasoning	3	2-2
MATH 20804200	Principles Of Geometry	3	1-4
MATH 20804201	Intermediate Algebra	4	3-2
MATH 20804202	Intermediate Algebra I	3	2-2
MATH 20804203	Intermediate Algebra 2	3	2-2
MATH 20804208	Computer Science	4	3-2
<i>Biology Courses - with Lab</i>			
BIOLOGY 20806203	Introductory Zoology	5	4-2
BIOLOGY 20806206	General Anatomy and Physiology	4	3-2
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 20806262	Anatomy and Physiology for Exercise Lab	1	0-2
BIOLOGY 20806271	Cellular and Molecular Biology	5	3-4
BIOLOGY 20806272	Organismal Biology	5	3-4
BIOLOGY 20806273	Microbiology-University Medical	5	3-4
BIOLOGY 20806274	General Microbiology	5	3-4
BIOLOGY 20806286	Environmental Science	4	2-4
<i>Biology Courses - without Lab</i>			
BIOLOGY 20806204	Biological Greek and Latin Terminology	3	3-0
BIOLOGY 20806280	Environmental Issues	3	3-0
BIOLOGY 20806281	Ecology/Conservation Biology	3	3-0
<i>Chemistry Courses - with Lab</i>			
CHEM 20806200	Liberal Arts Chemistry	5	3-4
CHEM 20806201	General, Organic & Biological Chemistry	5	4-2
CHEM 20806209	College Chemistry 1	5	3-4
CHEM 20806212	College Chemistry 2	5	3-4
CHEM 20806213	Organic Chemistry 1	5	3-4
CHEM 20806214	Organic Chemistry 2	5	3-4
CHEM 20806216	Chemistry for Biotechnology	3	2-2
<i>Physical Science Courses - with Lab</i>			
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
EARTHSCI 20806244	General Geology	4	3-2
EARTHSCI 20806247	Earth Science Lab	1	0-2
EARTHSCI 20806248	Weather and Climate Laboratory	1	0-2
ASTRON 20806253	Astronomy: The Solar System	4	3-2
ASTRON 20806254	Astronomy: Stars & Galaxies	4	3-2
EARTHSCI 20806249	Geologic Evolution of the Earth	4	3-2
EARTHSCI 20806251	Undergraduate Geology Field Experience	2	0-4
<i>Physical Science Courses - without Lab</i>			
PHYSICS 20806220	Physics of Everyday Life	3	3-0
PHYSICS 20806232	Statics	3	2-2
EARTHSCI 20806241	Earth Science	3	3-0
EARTHSCI 20806245	Weather And Climate	3	3-0
EARTHSCI 20806246	Survey of Oceanography	3	3-0
EARTHSCI 20806249	Geologic Evolution of the Earth	4	3-2
EARTHSCI 20806250	Climate and Climate Change	3	3-0
EARTHSCI 20806252	Natural Hazards	3	3-0
PHYSICS 20806291	Introduction to Renewable Energy	3	3-0
Social Science (9 credits)			
<i>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.</i>			
<i>Anthropology Courses</i>			
ANTHRO 20809279	Introduction to the Archaeology of Native North America	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
ANTHRO 20809286	The Anthropology of Globalization & Multiculturalism	3	3-0
ANTHRO 20809287	Anthropology of Islamic Societies and Cultures	3	3-0
ANTHRO 20809288	Human Biology & Physical Anthropology	3	3-0
ANTHRO 20809289	World Regional Geography	3	3-0
ANTHRO 20809292	Agriculture, Food, and Society	3	3-0
<i>Economics Courses</i>			
ECON 20809211	Macro Economics	3	3-0

ECON 20809212	Micro Economics	3	3-0
ECON 20809214	Intro International Econ	3	3-0
ECON 20809228	Environmental Economics	3	3-0
ECON 20809269	Energy And Society	3	3-0
<i>Economics Elective Course</i>			
ECON 10809195	Economics	3	3-0
History Courses			
HISTORY 20803204	Renaissance, Reformation, and Revolution	3	3-0
HISTORY 20803205	Europe and Modern World	3	3-0
HISTORY 20803211	Am Hist 1607-1865	3	3-0
HISTORY 20803212	Am Hist 1865-Pres.	3	3-0
HISTORY 20803214	Native American History - Liberal Arts Transfer	3	3-0
HISTORY 20803215	American History Since 1945	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 20803230	Public Man, Private Woman: Bronze Age to Glass Ceiling	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 20803240	Afro-American History	3	3-0
<i>Political Science Courses</i>			
POLISCI 20809218	Law and Society	3	3-0
POLISCI 20809220	American Foreign Policy	3	3-0
POLISCI 20809221	American Ntl Govt	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 20809243	Comparative Politics	3	3-0
POLISCI 20809244	Russian Politics	3	3-0
POLISCI 20809245	Latin American Politics	3	3-0
POLISCI 20809246	African Politics	3	3-0
POLISCI 20809247	East Asian Politics	3	3-0
POLISCI 20809248	Politics of India	3	3-0
POLISCI 20809254	Political Science Research Methods	3	3-0
<i>Psychology Courses</i>			
PSYCH 20809201	Human Sexuality	3	3-0
PSYCH 20809225	Social Psychology	3	3-0
PSYCH 20809231	Intro Psychology	3	3-0
PSYCH 20809233	Developmental Psychology	3	3-0
PSYCH 20809237	Abnormal Psych	3	3-0
PSYCH 20809239	Child Human Development	3	3-0
PSYCH 20809249	Educational Psychology	3	3-0
<i>Sociology Courses</i>			
SOC 20809202	Social Problems	3	3-0
SOC 20809203	Intro Sociology	3	3-0
SOC 20809204	Marriage and the Family	3	3-0
SOC 20809207	Criminology	3	3-0
SOC 20809229	Social Movements	3	3-0
SOC 20809230	Statistics for the Social Sciences	4	4-0
SOC 20809240	Introduction to Latin America	3	3-0
SOC 20809251	Sociology of the Middle East and North Africa	3	3-0
SOC 20809252	Race and Ethnicity in the U.S.	3	3-0
SOC 20809253	Sociology of Gender	3	3-0
SOC 20809275	Sociology of Religion	3	3-0
SOC 20809277	Couple Relationships	1	1-0
SOC 20809291	Technology and Society	3	3-0
<i>Interdisciplinary Social Science Courses</i>			

SOCSCI 20809206	Introduction to Women's Studies	3	3-0
SOCSCI 20809210	Psychology of Men	3	3-0
SOCSCI 20809234	Psychology of Women	3	3-0
Electives (16 credits)			
<i>Select college transfer courses beyond the minimum requirements. A maximum of one credit of a physical education activity course may be selected.</i>			
Ethnic Studies (One course)			
<i>Course may also count toward Humanities/Fine Arts, Social Science, or Electives.</i>			
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	Native American History - Liberal Arts Transfer	3	3-0
HISTORY 20803240	Afro-American History	3	3-0
SOC 20809252	Race and Ethnicity in the U.S.	3	3-0
ANTHRO 20809283	Cultural Anthropology & Human Diversity	3	3-0
ANTHRO 20809286	The Anthropology of Globalization & Multiculturalism	3	3-0
Literature (One course)			
<i>The course may also count toward fulfilling the Humanities and Fine Arts or Electives requirements.</i>			
ENGLISH 20801204	Introduction to Literature	3	3-0
ENGLISH 20801207	World Indigenous Literatures	3	3-0
ENGLISH 20801211	Gay & Lesbian 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 20801215	British Literature 1	3	3-0
ENGLISH 20801216	British Literature 2	3	3-0
ENGLISH 20801217	American Literature 1	3	3-0
ENGLISH 20801218	American 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 20801221	Literature and Popular Culture	3	3-0
ENGLISH 20801222	U.S. Latino Literature	3	3-0
ENGLISH 20801223	Peace, Conflict, and Literature: The Arts of the Contact Zone	3	3-0
ENGLISH 20801226	Introduction to African Literature	3	3-0
ENGLISH 20801227	Children's Literature	3	3-0
ENGLISH 20801229	Contemporary Lit	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 Literature in Translation	3	3-0
ENGLISH 20801250	Women In Literature	3	3-0
LITTRANS 20802250	Literature in Translation	3	3-0
World Languages (One course)			
<i>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.</i>			
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	Introduction to Mandarin Chinese	3	2-2

CHINESE 20802231	Introduction to Mandarin Chinese 2	3	2-2
ARABIC 20802240	Intro to Modern Arabic 1	3	2-2
ARABIC 20802241	Intro to Modern Arabic 2	3	2-2

Machine Tool Operations

Program Number: 314201

Embedded Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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			
INDMANUF 10623200	Interpreting Engineering Drawings	2	0-4
MACHT 32420322	Machine Tool 1	4	2-6
MACHT 32420323	Machine Tool 2	4	2-6
MACHT 32420346	Intro to CNC - G-code Programming	2	2-2
MACHT 32420351	Elements of Basic Metrology	2	4-0
COMM 31801356	Communications 1	1	2-0
MATH 31804381	Machine Tool Math 1	2	4-0
Second Semester			
MATH 31804382	Machine Tool Math 2	1	2-0
MACHT 32420304	Intermediate Metrology Applications	1	0-2
MACHT 32420324	Machine Tool 3	4	2-6
MACHT 32420325	Machine Tool 4	4	2-6
MACHT 32420337	Manufacturing w/Solid Modeling-2D	2	4-0
MACHT 32420348	Applied CNC-Conversational and Setup	2	2-2
MACHT 32420388	Tool and Fixture Design	1	2-0
MACHT 32420390	Fundamentals of Metallurgy	2	4-0

Machine Tooling Technics

Program Number: 324205

A Two Year Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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			
INDMANUF 10623200	Interpreting Engineering Drawings	2	0-4
MACHT 32420322	Machine Tool 1	4	2-6
MACHT 32420323	Machine Tool 2	4	2-6
MACHT 32420346	Intro to CNC - G-code Programming	2	2-2
MACHT 32420351	Elements of Basic Metrology	2	4-0
COMM 31801356	Communications 1	1	2-0
MATH 31804381	Machine Tool Math 1	2	4-0
Second Semester			
MACHT 32420304	Intermediate Metrology Applications	1	0-2
MACHT 32420324	Machine Tool 3	4	2-6
MACHT 32420325	Machine Tool 4	4	2-6
MACHT 32420337	Manufacturing w/Solid Modeling-2D	2	4-0
MACHT 32420348	Applied CNC-Conversational and Setup	2	2-2
MACHT 32420388	Tool and Fixture Design	1	2-0
MACHT 32420390	Fundamentals of Metallurgy	2	4-0
MATH 31804382	Machine Tool Math 2	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
PHYSICS 31806363	Science 1	2	2-2
Fourth Semester			
INDMANUF 10623300	Fluid Power 1 for Industry	1	0-2
INDMANUF 10623310	Mechanisms for Industry	1	0-2
MACHT 32420328	Machine Tool 7	4	2-6
MACHT 32420329	Machine Tool 8	5	2-8
MACHT 32420370	Manufacturing w/Solid Modeling-Advanced	1	1-1
MACHT 32420391	Applied CNC - Advanced Operations	1	0-2
MACHT 32420393	Job Orientation - Machine Tooling Technics Program	1	2-0
MACHT 32420395	Tool Making Theory 2	2	4-0
WELD 32442313	Related Welding	1	0-2

Machinist Apprenticeship

Program Number: 504202

Apprenticeship Completion

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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 50420512	Machinist 1	2	3-1
Alternate First Semester Courses to Satisfy Machinist 1 (complete all)			
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 50420513	Machinist 2	2	3-1
Alternate Second Semester Courses to Satisfy Machinist 2 (complete all)			
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 50420514	Machinist 3	2	3-1
Alternate Third Semester Courses to Satisfy Machinist 3 (complete all)			
MACHT 50420710	Safety for Machine Tool Trade Apprentices	0	0.33-0.16
MACHT 50420720	Cut-Off Machines for Machine Trades Apprentices	0	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	0.72-0.27
Fourth Semester			
MACHT 50420515	Machinist 4	2	3-1
Alternate Fourth Semester Courses to Satisfy Machinist 4 (complete all)			
MACHT 50420716	Turning Machines for Machine Trades Apprentices	0	0.72-0.27
MACHT 50420717	Milling Machines for Machine Trades Apprentices	0	0.5-0.27
MACHT 50420718	Drilling Machines for Machine Trades Apprentices	0	0.72-0.27
MACHT 50420719	Grinding Machines for Machine Trades Apprentices	0	0.72-0.27
Fifth Semester			
MACHT 50420516	Machinist 5	2	3-1
Alternate Fifth Semester Courses to Satisfy Machinist 5 (complete all)			
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	0.72-0.27
MACHT 50420727	Geometric Design and Tolerancing for Machine Trades Apprentices	0	0.72-0.27

Sixth Semester			
MACHT 50420517	Machinist 6	2	3-1
Alternate Sixth Semester Courses to Satisfy Machinist 6 (complete all)			
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

Maintenance Mechanic/Millwright Apprenticeship Completion

Program Number: 504231

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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			
MILLWRGT 50423561	Prnt Rdg/Math/Tools & Methods	2	3-1
Second Semester			
MILLWRGT 50423562	Prnt Rdg/Math/Mech Pwr Trans 1	2	3-1
Third Semester			
MILLWRGT 50423563	Prnt Rdg/Math/Mech Pwr Trans 2	2	3-1
Fourth Semester			
MILLWRGT 50423564	Print Reading/Math/Fluid Power	2	3-1
Fifth Semester			
MILLWRGT 50423565	Prnt Rdg/Math/Pipefit/Mech	2	3-1
Sixth Semester			
MILLWRGT 50423566	Print Reading/Math/Metalwork	2	3-1
Seventh Semester			
MILLWRGT 50423567	Print Reading/Math/Electrical	2	3-1
Eighth Semester			
MILLWRGT 50423568	Prnt Read/Math/Mach Repair	2	3-1

Management Trainee

Program Number: 311027

Embedded Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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	Business Organization, Management, and Ethics	3	3-0
HRMGT 10116145	Introduction to Human Resources	3	3-0
ENGLISH 10801195	Written Communication	3	3-0
MATH 10804144	Math of Finance	3	3-0
Second Semester			
ACCTG 10101118	Management Accounting	4	4-0
BUSADM 10102135	Project Management - Fundamentals	3	3-0
COMPSOFT 10103133	Excel - Beginning	1	0.27-1.5
COMPSOFT 10103139	Excel - Intermediate	1	0.27-1.5
COMM 10801196	Oral/Interpersonal Communication	3	3-0
PSYCH 10809199	Psychology Of Human Relations	3	3-0
Third Semester			
BUSADM 10102114	Business Communication	3	3-0
BUSADM 10102143	Management Techniques	3	3-0
MKTG 10104102	Marketing Principles	3	3-0

Managing a Multicultural Workforce

Program Number: 901969CERT

Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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			
<i>The courses are listed in the recommended order if taking them sequentially, although they can all be completed in one semester.</i>			
SUPDEV 10196191	Principles of Supervision	3	3-0
SUPDEV 10196189	Team Building & Problem Solving	3	3-0
SUPDEV 10196116	Organizational Behavior	3	3-0
SUPDEV 10196169	Diversity & Change Management	3	3-0

Marketing

Program Number: 101043

Associate in Applied Science

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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
COMPSOFT 10103133	Excel - Beginning	1	0.27-1.5
COMPSOFT 10103137	Word - Beginning	1	0.27-1.5
COMPSOFT 10103143	PowerPoint - Beginning	1	0.27-1.5
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
Second Semester			
MATH 10804144	Math of Finance	3	3-0
MKTG 10104112	Marketing Design Strategies	3	3-0
MKTG 10104114	Social Media Principles	3	3-0
MKTG 10104125	Principles of Advertising	3	3-0
MKTG 10104162	Mobile Marketing (Social Media)	3	3-0
Third Semester			
COMM 10801196	Oral/Interpersonal Communication	3	3-0
MKTG 10104126	Public Relations	3	3-0
MKTG 10104164	Marketing Digital Design	3	3-0
	Marketing Approved Elective (See list below)	3	
MKTG 10104169	Internet Marketing	3	3-0
Fourth Semester			
ECON 10809195	Economics	3	3-0
PSYCH 10809199	Psychology Of Human Relations	3	3-0
MKTG 10104103	Marketing Research	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 Electives (3 credits in Third Semester)			
MKTG 10104165	Marketing Internship	3	1-0
MKTG 10104187	Global Studies Seminar	3	3-0
MKTG 10104160	Sales Management	3	3-0
JOURNAL 20801262	Social Media Writing	3	3-0
MKTG 10104802	Honors - Marketing	3	0-0

Marketing-Social Media

Program Number: 301043

Embedded Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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 10104114	Social Media Principles	3	3-0
MKTG 10104162	Mobile Marketing (Social Media)	3	3-0
MKTG 10104164	Marketing Digital Design	3	3-0
MKTG 10104169	Internet Marketing	3	3-0

Mechanical Design Technology

Program Number: 106061

Associate in Applied Science

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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 10606100	Engineering Technology Communications	3	1-4
MECTEC 10606101	Engineering Technology Fundamentals	2	1-2
MECTEC 10606120	2-D CAD (Computer Aided Drafting)	2	1-2
MECTEC 10606130	SolidWorks 1	2	1-2
MECTEC 10606160	Fundamentals of Manufacturing/Engineering Materials	2	1-2
ENGLISH 10801195	Written Communication	3	3-0
MATH 10804114	College Technical Math 1B	2	2-0
Second Semester			
MECTEC 10606131	SolidWorks 2	2	1-2
MECTEC 10606140	Dimensioning/GDT	3	2-2
MECTEC 10606155	Statics And Mechanics	3	2-2
MECTEC 10606161	Manufacturing Processes	2	1-2
MECTEC 10606170	Strength Of Materials	3	2-2
MATH 10804116	College Technical Math 2	4	4-0
PSYCH 10809199	Psychology Of Human Relations	3	3-0
Third Semester			
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
MECTEC 10606193	Career Development - Mechanical Design Program	1	1-0
PHILOS 10809166	Intro to Ethics: Theory & App	3	3-0
Fourth Semester			
MECTEC 10606112	Tool Design Technology	3	1-4
MECTEC 10606150	CAE Applications	2	1-2
MECTEC 10606152	PLC, Hydraulics, Pneumatics	2	1-2
MECTEC 10606186	Engineering Technology Applications	3	0-6
ENGLISH 10801197	Technical Reporting	3	3-0
PHYSICS 10806154	General Physics 1	4	3-2

Medical Administrative Specialist

Program Number: 101604

Associate in Applied Science

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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 10103165	Outlook	1	0.27-1.5
ADMINPRF 10106107	Business Document Applications	3	1-4
ADMINPRF 10106108	Proofreading And Editing	3	2-2
ADMINPRF 10106139	Keyboard Skillbuilding	1	0.27-1.5
ADMINPRF 10160178	Medical Language for the Business Professional 1	2	1-2
ENGLISH 10801195	Written Communication	3	3-0
ADMINPRF 10106164	Customer Contact Skills	1	1-0.5
Second Semester			
ADMINPRF 10106109	Business Spreadsheet Applications	3	1-4
ADMINPRF 10160165	Medical Administrative Procedures	3	1-4
ADMINPRF 10160179	Medical Language for the Business Professional 2	2	1-2
MEDTERM 10501153	Body Structure & Function - Used in a variety of Degree Programs	3	3-0
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 10106190	Professional Development	1	1-0.5
ADMINPRF 10106231	Business Presentations and Publications	3	1-4
ADMINPRF 10106240	Business Information Management	3	1-4
ADMINPRF 10160166	Healthcare Documentation Techniques and Procedures	3	2-2
ADMINPRF 10160191	Introduction to Healthcare Documentation	2	0.5-3
Fourth Semester			
ADMINPRF 10106134	Software Projects	2	0.5-3
ADMINPRF 10106186	Introduction to Project Management	2	0.5-3
ADMINPRF 10106194	Career Management	1	1-0.5
ADMINPRF 10106195	Internship - Administrative Professional & Medical Administrative Specialist	1	0-0
ADMINPRF 10160177	Specialized Insurance Claims	2	1-2
SOC 10809172	Introduction to Diversity Studies	3	3-0
PSYCH 10809199	Psychology Of Human Relations	3	3-0

Medical Assistant

Program Number: 315091

A One Year Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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	4-0
MASST 31509303	Medical Asst Lab Procedures 1	2	2-2
MASST 31509304	Medical Asst Clin Procedures 1	4	4-4
MEDTERM 10501101	Medical Terminology	3	3-0
MEDTERM 10501107	Digital Literacy for Healthcare	2	1-2
Second Semester			
MEDTERM 31501308	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
ENGLISH 10801195	Written Communication	3	3-0

Medical Billing Specialist

Program Number: 301605

Embedded Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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 10103165	Outlook	1	0.27-1.5
ADMINPRF 10106107	Business Document Applications	3	1-4
ADMINPRF 10106139	Keyboard Skillbuilding	1	0.27-1.5
ADMINPRF 10106164	Customer Contact Skills	1	1-0.5
ADMINPRF 10160178	Medical Language for the Business Professional 1	2	1-2
ENGLISH 10801195	Written Communication	3	3-0
Second Semester			
ADMINPRF 10106109	Business Spreadsheet Applications	3	1-4
ADMINPRF 10160165	Medical Administrative Procedures	3	1-4
ADMINPRF 10160177	Specialized Insurance Claims	2	1-2
ADMINPRF 10160179	Medical Language for the Business Professional 2	2	1-2

Medical Coding Specialist

Program Number: 315302

A One Year Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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			
MEDTERM 10501153	Body Structure & Function	3	3-0
MEDTERM 10501101	Medical Terminology	3	3-0
COMPSOFT 10103121	Windows 10	1	0.27-1.5
MEDTERM 10501107	Digital Literacy for Healthcare	2	1-2
Core Program Courses			
Cluster 1			
MEDREC 10530162	Foundations of HIM	3	2-2
MEDREC 10530182	Human Disease for Health Professions	3	3-0
MEDREC 10530197	ICD Diagnosis Coding	3	2-2
Cluster 2			
MEDREC 10530184	CPT Coding	3	2-2
MEDREC 10530185	Healthcare Reimbursement	2	1-2
MEDREC 10530189	Management of Coding Services	1	1-0
MEDREC 10530199	ICD Procedure Coding	2	1-2
Cluster 3			
MEDREC 10530168	Advanced ICD Coding	3	2-2
MEDREC 10530187	Advanced CPT Coding	3	2-2
MEDREC 10530188	Certification & Professional Development	2	1-2

Medical Laboratory Technician

Program Number: 105131

Associate in Applied Science

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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	0-2
LABASST 10513111	Phlebotomy	2	0-4
LABASST 10513113	QA Lab Math	1	1-0
LABASST 10513114	Urinalysis	2	0-4
BIOLOGY 20806206	General Anatomy and Physiology	4	3-2
CHEM 20806201	General, Organic & Biological Chemistry	5	4-2
ENGLISH 10801195	Written Communication	3	3-0
Second Semester			
LABASST 10513115	Basic Immunology Concepts	2	0-4
LABASST 10513120	Basic Hematology	3	0-6
LABASST 10513121	Coagulation	1	0-2
LABASST 10513109	Blood Bank	4	2-4
SPEECH 10801198	Speech	3	3-0
<i>Choose from Microbiology or General Microbiology:</i>			
BIOLOGY 20806273	Microbiology-University Medical	5	3-4
BIOLOGY 20806274	General Microbiology	5	3-4
Third Semester (summer)			
SOC 10809197	Contemporary Amer Society	3	3-0
PSYCH 10809199	Psychology Of Human Relations	3	3-0
Fourth Semester			
LABASST 10513130	Advanced Hematology	2	0-4
LABASST 10513131	Clinical Chemistry 1	3	0-6
LABASST 10513132	Clinical Chemistry 2	2	0-4
LABASST 10513133	Clinical Microbiology	4	0-8
LABASST 10513170	Introduction to Molecular Diagnostics	1	1-0
	Elective	2	
Fifth Semester			
LABASST 10513140	Advanced Microbiology	2	2-0
LABASST 10513141	Pre-Clinical Experience	2	0-0
LABASST 10513151	Clinical Experience 1	3	0-6
LABASST 10513152	Clinical Experience 2	4	0-8
LABASST 10513153	Clinical Portfolio	1	0-2

Meeting & Event Management for the Administrative Professional Certificate

Program Number: 901096CERT

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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.

Courses		Credits/Units	Hrs/Week LEC-LAB
ADMINPRF 10106109	Business Spreadsheet Applications	3	1-4
EVTMGT 10109102	Fundamentals Of Meeting Mgmt	3	3-0
EVTMGT 10109110	Meeting Coordination	3	3-0
EVTMGT 10109111	Registration/Housing Logistics	2	2-0

Meeting and Event Management

Program Number: 101096

Associate in Applied Science

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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
ACCTG 10101106	Accounting Fundamentals	3	3-0
EVTMGT 10109102	Fundamentals Of Meeting Mgmt	3	3-0
EVTMGT 10109111	Registration/Housing Logistics	2	2-0
ENGLISH 10801195	Written Communication	3	3-0
MATH 10804123	Math with Business Applications	3	3-0
Second Semester			
MKTG 10104114	Social Media Principles	3	3-0
EVTMGT 10109104	Meeting Design	3	3-0
EVTMGT 10109108	Mtgs Industry Budget/Finance	2	2-0
EVTMGT 10109110	Meeting Coordination	3	3-0
COMM 10801196	Oral/Interpersonal Communication	3	3-0
Third Semester			
MKTG 10104102	Marketing Principles	3	3-0
EVTMGT 10109109	Special Event Management	3	3-0
EVTMGT 10109116	Fundamentals of Green Meetings and Events	2	2-0
EVTMGT 10109119	Event Professional Best Practices	3	3-0
SOC 10809172	Introduction to Diversity Studies	3	3-0
Fourth Semester			
EVTMGT 10109112	Exhibition Management	3	3-0
EVTMGT 10109113	Risk Management, Negotiations, and Legal Issues	3	3-0
EVTMGT 10109114	Meeting/Event Mgmt Internship	2	0-0
EVTMGT 10109117	Partnership Development	3	3-0
PSYCH 10809199	Psychology Of Human Relations	3	3-0
	Elective	3	

Metal Fabrication

Program Number: 314572

A One Year Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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			
INDMANUF 10623100	Safety for Industry	1	0-2
INDMANUF 10623200	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
MATH 31804379	Vocational Math 1	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
COMM 32801350	Workplace Communication for Industry	1	2-0

Microsoft Office

Program Number: 301066

Embedded Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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.

Courses		Credits/Units	Hrs/Week LEC-LAB
COMPSOFT 10103165	Outlook	1	0.27-1.5
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
ADMINPRF 10106240	Business Information Management	3	1-4

Microsoft Office Certificate - Core Certificate

Program Number: 901031CERT

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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
Microsoft Office Certificate Core			
COMPSOFT 10103121	Windows 10	1	0.27-1.5
COMPSOFT 10103165	Outlook	1	0.27-1.5
COMPSOFT 10103137	Word - Beginning	1	0.27-1.5
COMPSOFT 10103133	Excel - Beginning	1	0.27-1.5
COMPSOFT 10103145	Access - Beginning	1	0.27-1.5
COMPSOFT 10103143	PowerPoint - Beginning	1	0.27-1.5

Motorcycle, Marine & Outdoor Power Products

Program Number: 314612

A One Year Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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 32420330	Metal Processes 1	2	2-2
SMENG 31461324	Basic Two- and Four-Cycle Engines	5	4-6
SMENG 31461325	Small Engine Rebuilding - Motorcycle, Marine & Outdoor Power Products Technician Program	5	4-6
SMENG 31461328	Small Engine Lab 1	1	0-2
SMLBUS 10145189	Customer Relations	2	2-0
Second Semester			
MACHT 32420331	Metals Processes 2	2	2-2
SMENG 31461326	Electrical and Hydraulic Systems	5	4-6
SMENG 31461327	Power Transmissions and Motorcycle, Marine and Outdoor Power Products	5	4-6
SMENG 31461329	Small Engine Lab 2	1	0-2
BUSADM 10102134	Business Organization, Management, and Ethics	3	3-0

Nursing Assistant

Program Number: 305431

Less Than One Year Tech Diplom

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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, Second or Summer Semester			
NRSAD 30543300	Nursing Assistant	3	4-2.66

Occupational Therapy Assistant

Program Number: 105141

An Associate in Applied Arts D

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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			
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	0-4
ENGLISH 10801195	Written Communication	3	3-0
BIOLOGY 20806206	General Anatomy and Physiology	4	3-2
PSYCH 20809231	Intro Psychology	3	3-0
Second Semester			
OTASST 10514174	OT Performance Skills	4	0-8
OTASST 10514175	Ot Fw:Specialty	3	1-4
OTASST 10514176	OT Theory and Practice	3	1-4
OTASST 10514178	Geriatric Practice	3	1-4
PSYCH 20809237	Abnormal Psych	3	3-0
ENGLISH 20801202	English 2	3	3-0
Summer Semester			
PSYCH 20809233	Developmental Psychology	3	3-0
SOC 10809172	Introduction to Diversity Studies	3	3-0
Third Semester			
OTASST 10514177	Assistive Technology and Adaptations	2	0-4
OTASST 10514179	Community Practice	2	0-4
OTASST 10514182	Physical Rehabilitation Practice	3	1-4
OTASST 10514183	Pediatric Practice	3	1-4
OTASST 10514184	OTA Fieldwork 1	2	1-2
	Elective	3	
Fourth Semester			
OTASST 10514185	OT Practice and Management	2	1-2
OTASST 10514186	OTA Fieldwork IIA	5	0-0
OTASST 10514187	OTA Fieldwork IIB	5	0-0

Office Assistant

Program Number: 311061

Embedded Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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 10106102	Introduction to Office Professions	1	1-0.5
ADMINPRF 10106107	Business Document Applications	3	1-4
ADMINPRF 10106139	Keyboard Skillbuilding	1	0.27-1.5
ADMINPRF 10106182	Information Technology Concepts	3	2-2
ADMINPRF 10106231	Business Presentations and Publications	3	1-4
ENGLISH 10801195	Written Communication	3	3-0
MATH 10804123	Math with Business Applications	3	3-0
Second Semester			
COMPSoft 10103165	Outlook	1	0.27-1.5
ADMINPRF 10106108	Proofreading And Editing	3	2-2
ADMINPRF 10106109	Business Spreadsheet Applications	3	1-4
ADMINPRF 10106133	Document Formatting	2	1-2
ADMINPRF 10106164	Customer Contact Skills	1	1-0.5
ADMINPRF 10106172	Administrative Office Management	3	2-2
ADMINPRF 10106240	Business Information Management	3	1-4

Optometric Technician

Program Number: 315162

A One Year Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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	3-2
OPTOMET 31516301	Ophthalmic Pre-Testing	3	3-3
OPTOMET 31516305	Basic Optical Concepts	3	3-2
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	2.5-2.5
OPTOMET 31516335	Ophthalmic Specialty Testing	3	4-2
OPTOMET 31516340	Patient Relations/Pract Manage	2	3.33-0
OPTOMET 31516345	Preclinical	2	0-4
OPTOMET 31516350	Clinical Experience	3	0-0

Optometric Technician

Program Number: 315162-ET

A One Year Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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 31516315	Ocular Anatomy	2	3-1
OPTOMET 31516301	Ophthalmic Pre-Testing	3	3-3
Second Semester			
OPTOMET 31516305	Basic Optical Concepts	3	3-2
OPTOMET 31516325	Optical Dispensing 1	3	3-2
Third Semester			
OPTOMET 31516326	Optical Dispensing 2	2	2-2
OPTOMET 31516335	Ophthalmic Specialty Testing	3	4-2
OPTOMET 31516335	Ophthalmic Specialty Testing	3	4-2
Fourth Semester			
OPTOMET 31516330	Contact Lenses	3	2.5-2.5
OPTOMET 31516340	Patient Relations/Pract Manage	2	3.33-0

Painting & Decorating Apprentice

Program Number: 504241

Apprenticeship Completion

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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			
PAINTDEC 50424590	Tech Paint Sem 1	2	3-1
Second Semester			
PAINTDEC 50424591	Tech Paint Sem 2	2	3-1
Third Semester			
PAINTDEC 50424592	Tech Paint Sem 3	2	3-1
Fourth Semester			
PAINTDEC 50424593	Tech Paint Sem 4	2	3-1
Fifth Semester			
PAINTDEC 50424594	Tech Paint Sem 5	2	3-1
Sixth Semester			
PAINTDEC 50424595	Tech Paint Sem 6	2	3-1

Paralegal

Program Number: 101101

Associate in Applied Science

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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 Paralegal Profession	1	1-0
First Semester			
PARALEG 10110101	Introduction to Paralegalism and Legal Ethics	3	3-0
PARALEG 10110141	Computer Applications - Legal	3	3-0
ENGLISH 10801195	Written Communication	3	3-0
ECON 10809195	Economics	3	3-0
PSYCH 10809199	Psychology Of Human Relations	3	3-0
	Elective	3	
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
	Selectives (3 credits)		
Third Semester			
PARALEG 10110105	Legal Writing	3	3-0
PARALEG 10110176	Career Building Techniques - Paralegal	2	2-0
	Selectives (6 credits)		
<i>Math/Science Requirement: Choose one of the following courses:</i>			
MATH 10804144	Math of Finance	3	3-0
BIOLOGY 10806177	Gen Anatomy & Physiology	4	3-2
BIOLOGY 20806204	Biological Greek and Latin Terminology	3	3-0
BIOLOGY 20806206	General Anatomy and Physiology	4	3-2
Fourth Semester			
PARALEG 10110103	Civil Litigation 2	3	3-0
PARALEG 10110107	Legal Aspects of Business Organizations	3	3-0
PARALEG 10110142	Paralegal Internship	3	1-0
PHILOS 10809166	Intro to Ethics: Theory & App	3	3-0
	Selectives (6 credits)		
Paralegal Selectives Course List			
PARALEG 10110106	Family Law	3	3-0
PARALEG 10110110	Real Estate Law - Paralegal	3	3-0
PARALEG 10110114	Administration Of Estates - Paralegal Program	3	3-0
PARALEG 10110115	Administrative Law	3	3-0
PARALEG 10110122	Debtor & Creditor Relations	3	3-0
PARALEG 10110160	Employment Law - Paralegal	3	3-0
PARALEG 10110168	Criminal Law 1 - Paralegal	3	3-0

PARALEG 10110169	Criminal Law 2	3	3-0
PARALEG 10110170	Intellectual Property Law	3	3-0
PARALEG 10110171	Law & Contemporary Problems	3	3-0
PARALEG 10110172	Environmental Law - Paralegal	3	3-0
PARALEG 10110173	Contract Law in a Global Economy	3	3-0
PARALEG 10110116	Elder Law: Healthcare, Public Benefits and the Administrative Law Process	1	1-0
PARALEG 10110120	Guardianships & the Protective Services System	1	1-0
PARALEG 10110119	Advanced Family Law	1	1-0
PARALEG 10110140	Word and Excel for Legal Professionals	1	1-0
PARALEG 10110108	E-Discovery and Digital Tools	2	3-0

Paralegal Post-Baccalaureate

Program Number: 311101

A One Year Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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 Paralegal Profession	1	1-0
First Semester			
PARALEG 10110101	Introduction to Paralegalism and Legal Ethics	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 - Paralegal	2	2-0
Second Semester			
PARALEG 10110105	Legal Writing	3	3-0
PARALEG 10110142	Paralegal Internship	3	1-0
	Selectives	9	
Paralegal Selectives			
PARALEG 10110103	Civil Litigation 2	3	3-0
PARALEG 10110106	Family Law	3	3-0
PARALEG 10110107	Legal Aspects of Business Organizations	3	3-0
PARALEG 10110110	Real Estate Law - Paralegal	3	3-0
PARALEG 10110114	Administration Of Estates - Paralegal Program	3	3-0
PARALEG 10110115	Administrative Law	3	3-0
PARALEG 10110122	Debtor & Creditor Relations	3	3-0
PARALEG 10110160	Employment Law - Paralegal	3	3-0
PARALEG 10110168	Criminal Law 1 - Paralegal	3	3-0
PARALEG 10110169	Criminal Law 2	3	3-0
PARALEG 10110170	Intellectual Property Law	3	3-0
PARALEG 10110171	Law & Contemporary Problems	3	3-0
PARALEG 10110172	Environmental Law - Paralegal	3	3-0
PARALEG 10110173	Contract Law in a Global Economy	3	3-0
PARALEG 10110116	Elder Law: Healthcare, Public Benefits and the Administrative Law Process	1	1-0
PARALEG 10110120	Guardianships & the Protective Services System	1	1-0
PARALEG 10110119	Advanced Family Law	1	1-0
PARALEG 10110140	Word and Excel for Legal Professionals	1	1-0
PARALEG 10110108	E-Discovery and Digital Tools	2	3-0

Paramedic

Program Number: 315313

Embedded Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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 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

Paramedic Technician

Program Number: 105311

Associate in Applied Science

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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
BIOLOGY 20806207	Anatomy and Physiology 1	4	3-2
POLISCI 10809122	Intro to Amer Government	3	3-0
PSYCH 10809199	Psychology Of Human Relations	3	3-0
Second Semester			
SPEECH 10801198	Speech	3	3-0
MATH 10804107	College Mathematics	3	2-2
BIOLOGY 20806208	Anatomy and Physiology 2	4	3-2
SOC 10809172	Introduction to Diversity Studies	3	3-0
Third Semester			
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 10531918	Advanced Emergency Resuscitation	1	0-2
EMS 10531925	Paramedic Clinical 1	1	0-0
EMS 10531926	Paramedic Clinical 2	1	0-0
Fourth Semester			
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
Fifth Semester - Summer			
EMS 10531923	Paramedic Capstone	1	0-2
EMS 10531928	Paramedic Field Internship	3	0-0

Photography

Program Number: 102031

An Associate in Applied Arts D

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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 10203105	Photo Composition	2	2-0
PHOTO 10203107	Studio Photography 1	3	0-6
PHOTO 10203120	Lighting Technique	2	0-4
VICOM 10206109	Intro to Electronic Design	2	0-4
ENGLISH 10801195	Written Communication	3	3-0
ECON 10809195	Economics	3	3-0
PSYCH 10809199	Psychology Of Human Relations	3	3-0
Second Semester			
PHOTO 10203108	Studio Photography 2	3	0-6
PHOTO 10203141	Color Photography 1	3	0-6
PHOTO 10203173	Photojournalism	2	0-4
VICOM 10206115	Digital Media for Photographers	3	0-6
COMM 10801196	Oral/Interpersonal Communication	3	3-0
SOC 10809197	Contemporary Amer Society	3	3-0
Third Semester			
PHOTO 10203121	Commercial Photography 1	3	0-6
PHOTO 10203124	Portrait Photography	2	0-4
PHOTO 10203142	Color Photography 2	3	0-6
PHOTO 10203134	Electronic Imaging	3	0-6
MATH 10804107	College Mathematics	3	2-2
PHILOS 20809276	Business Ethics - Liberal Arts Transfer	3	3-0
Fourth Semester			
PHOTO 10203109	Studio Photography 3	3	1-4
PHOTO 10203125	Business Of Photography	1	0-2
PHOTO 10203126	Advanced Digital Studio Portrait	2	0-4
PHOTO 10203176	Photographic Communication	2	0-4
PHOTO 10203185	Portfolio Preparation - Photography Program	2	0-4
PHOTO 10203174	Photography on Location	3	0-6
	Elective	2	

Photovoltaics

Program Number: 904801CERT

Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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 (Pre-requisite) Course List			
IND MECH 10462320	DC/AC Circuits	3	0-6
Core Course List			
<i>Complete (at least 8) credits from the following courses:</i>			
ENERCONS 10481110	Energy Management	3	2-2
RENEWELC 10482138	Introduction to Photovoltaic Technology	2	2-0
PHYSICS 20806291	Introduction to Renewable Energy	3	3-0
Additional Course List			
<i>Complete additional credits from these courses to reach a total of 15 credits:</i>			
RENEWELC 10482103	Photovoltaic Systems and the National Electric Code	1	1-0
RENEWELC 10482135	Advanced Photovoltaic Electives	3	3-0
RENEWELC 10482137	Photovoltaic Site Assessment	1	1-0
RENEWELC 10482139	Grid-Connected Photovoltaic Design and Installation	2	2-0
RENEWELC 10482140	Grid Connected Photovoltaic System Design	1	1-0
RENEWELC 10482141	Grid Connected Photovoltaic Systems Installation Lab	1	0-2
RENEWELC 10482142	Off Grid Photovoltaic System Design	1	1-0
RENEWELC 10482143	Off Grid Photo Systems Installation Lab	1	0.5-1
RENEWELC 10482149	Photovoltaic Technical Sales	1	1-0
CHEM 20806290	Renewable Energy for International Development	3	3-0

Physical Therapist Assistant

Program Number: 105241

Associate in Applied Science

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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 First Year Spring Term			
BIOLOGY 20806206	General Anatomy and Physiology	4	3-2
ENGLISH 10801195	Written Communication	3	3-0
SOC 10809197	Contemporary American Society	3	3-0
PSYCH 10809199	Psychology Of Human Relations	3	3-0
First Year Spring Term			
PTASST 10524156	PTA Applied Kinesiology 1	4	2-4
PTASST 10524139	PTA Patient Interventions	4	2-4
PTASST 10524140	PTA Professional Issues 1	2	2-0
ENGLISH 10801197	Technical Reporting	3	3-0
PSYCH 10809188	Developmental Psychology	3	3-0
First Year Fall Term			
PTASST 10524157	PTA Applied Kinesiology 2	3	2-2
PTASST 10524142	PTA Therapeutic Exercise	3	1-4
PTASST 10524143	PTA Therapeutic Modalities	4	2-4
SPEECH 10801198	Speech	3	3-0
Second Year Spring Term			
PTASST 10524144	PTA Princ of Neuro Rehab	4	2-4
PTASST 10524145	PTA Princ of Musculo Rehab	4	2-4
PTASST 10524146	PTA Cardio and Integumentary Management	3	2-2
PTASST 10524147	PTA Clinical Practice 1	2	0-0
Interim Course			
<i>Occurs at the end of the Spring term</i>			
PTASST 10524148	PTA Clinical Practice 2	3	0-0
Second Year Summer Trimester			
PTASST 10524149	PTA Rehab Across the Lifespan	2	2-0
PTASST 10524150	PTA Professional Issues 2	2	2-0
PTASST 10524151	PTA Clinical Practice 3	5	0-0
	Elective	3	

Trimesters begin in September for Fall, January for Winter, and June for Summer. Dates are not necessarily in sequence with the rest of the college. Trimesters last 15 weeks with an additional week for exams as needed. Inquire to PTA program regarding specific dates, as these may vary from year to year.

Plumbing Apprentice (ABC)

Program Number: 504279

Apprenticeship Completion

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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 50427550	Trade Plumbing Semester 1	2	3-1
Second Semester			
PLUMBNG 50427551	Trade Plumbing Semester 2	2	3-1
Third Semester			
PLUMBNG 50427552	Trade Plumbing Semester 3	2	3-1
Fourth Semester			
PLUMBNG 50427553	Trade Plumbing Semester 4	2	3-1
Fifth Semester			
PLUMBNG 50427554	Trade Plumbing Semester 5	2	3-1
Sixth Semester			
PLUMBNG 50427555	Trade Plumbing Semester 6	2	3-1
Seventh Semester			
PLUMBNG 50427556	Trade Plumbing Semester 7	2	3-1
<i>Eighth Semester</i>			
PLUMBNG 50427557	Trade Plumbing Semester 8	2	3-1

Plumbing Apprenticeship (JAC)

Program Number: 504273

Apprenticeship Completion

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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 50427753	Water Distribution 1	2	3.6-0.4
Second Semester			
PLUMBNG 50427751	Sanitary Drains 1	2	3.6-0.4
Third Semester			
PLUMBNG 50427755	Sanitary Drains 2	2	3.6-0.4
Fourth Semester			
PLUMBNG 50427754	Water Distribution 2	2	3.6-0.4
Fifth Semester			
PLUMBNG 50427752	Vents and Venting Systems	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

Project Management Certificate for the Office Professional Certificate

Program Number: 901065CERT

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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 10103133	Excel - Beginning	1	0.27-1.5
COMPSOFT 10103139	Excel - Intermediate	1	0.27-1.5
COMPSOFT 10103186	MS (Microsoft) Project	2	0.5-3
ADMINPRF 10106164	Customer Contact Skills	1	1-0.5
ADMINPRF 10106186	Introduction to Project Management	2	0.5-3
Plus, choose one of the following courses:			
BUSADM 10102134	Business Organization, Management, and Ethics	3	3-0
SUPDEV 10196189	Team Building & Problem Solving	3	3-0
EVTMGT 10109102	Fundamentals Of Meeting Mgmt	3	3-0

Radiography

Program Number: 105261

Associate in Applied Science

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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 20806206	General Anatomy and 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	5-0
RADTEC 10526158	Introduction to Radiography	3	3-0
RADTEC 10526159	Radiographic Imaging 1	3	3-0
RADTEC 10526168	Radiography Clinical 1	2	0-0
Second Semester			
RADTEC 10526170	Radiographic Imaging 2	3	3-0
RADTEC 10526191	Radiographic Procedures 2	5	5-0
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 Quality Analysis	2	2-0
RADTEC 10526196	Modalities	3	3-0
RADTEC 10526199	Radiography Clinical 4	3	0-0
COMM 10801196	Oral/Interpersonal Communication	3	3-0
PSYCH 20809231	Intro Psychology	3	3-0
Fifth Semester			
RADTEC 10526189	Radiographic Pathology	1	1-0
RADTEC 10526190	Radiography Clinical 5	2	0-0
RADTEC 10526197	Radiation Protection & Biology	3	3-0
SOC 10809197	Contemporary American Society	3	3-0
PSYCH 20809233	Developmental Psychology	3	3-0
Sixth Semester (Summer)			
RADTEC 10526174	ARRT Certification Seminar	2	0-0
RADTEC 10526198	Radiography Clinical 6	2	0-0

Real Estate Sales

Program Number: 901942CERT

Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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 10103133	Excel - Beginning	1	0.27-1.5
RLEST 10194182	Real Estate Law and Sales	4	4-0
RLEST 10194185	Real Estate Broker Management	4	4-0
Second Semester			
MKTG 10104102	Marketing Principles	3	3-0
MKTG 10104104	Selling Principles	3	3-0
MKTG 10104114	Social Media Principles	3	3-0
Third Semester			
RLEST 10194195	Real Estate Internship	3	1-0

Recreation Management

Program Number: 101094

Associate in Applied Science

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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			
RECMGT 10109103	Leisure and Lifestyle	3	3-0
RECMGT 10109162	Introduction to Recreation	2	2-0
COMPSOFT 10103133	Excel - Beginning	1	0.27-1.5
MKTG 10104102	Marketing Principles	3	3-0
ENGLISH 10801195	Written Communication	3	3-0
MATH 10804123	Math with Business Applications	3	3-0
Second Semester			
RECMGT 10109106	Recreation Programming	3	3-0
RECMGT 10109149	Risk Management in Recreation	2	2-0
RECMGT 10109171	Internship Development and Community Partnerships	2	2-0
COMM 10801196	Oral/Interpersonal Communication	3	3-0
SOC 10809172	Introduction to Diversity Studies	3	3-0
	Emphasis Area Course (see below)	3	
Third Semester (Summer)			
RECMGT 10109175	Recreation Internship Practicum	2	0-0
Fourth Semester			
RECMGT 10109135	Leadership Strategies in Recreation	3	3-0
RECMGT 10109163	Trends and Topics in Recreation	3	3-0
RECMGT 10109195	Recreation Industry Budget and Financial Management	3	3-0
PSYCH 10809199	Psychology Of Human Relations	3	3-0
	Emphasis Area Course (see below)	3	
Fifth Semester			
RECMGT 10109115	Recreation Administration & Management	3	3-0
RECMGT 10109155	Facility Operations and Maintenance	3	3-0
RECMGT 10109160	Inclusive Recreation	3	3-0
RECMGT 10109190	Recreation Seminar	1	1-0
ECON 10809195	Economics	3	3-0
	Emphasis Area Course (see below)	3	
Activity/Fitness Emphasis			
RECMGT 10109159	Wellness Coaching and Promotion	3	3-0
RECMGT 10109173	Group Fitness Development	3	2-2
RECMGT 10109176	Personal Trainer Development	3	1-4
RECMGT 10109189	Foundations of Worksite Wellness	3	3-0
<i>If choosing to take Body Structure and Function, students must also complete Anatomy & Physiology for Exercises Lab:</i>			
MEDTERM 10501153	Body Structure & Function - Used in a variety of Degree Programs	3	3-0

BIOLOGY 20806262	Anatomy and Physiology for Exercise Lab	1	0-2
Outdoor Education Emphasis			
RECMGT 10109196	Principles of Outdoor Pursuits	3	3-0
RECMGT 10109197	Challenge Course Programming	3	3-0
<i>Choose from one of the following two courses:</i>			
RECMGT 10109199	Adventure Processing and Facilitation	3	3-0
BIOLOGY 20806280	Environmental Issues	3	3-0

Renewable Energy

Program Number: 904802CERT

Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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
Choose at least 6 credits from among these Core courses:			
PHYSICS 20806291	Introduction to Renewable Energy	3	3-0
ECON 20809269	Energy And Society	3	3-0
ENERCONS 10481110	Energy Management	3	2-2
CHEM 20806290	Renewable Energy for International Development	3	3-0
Choose at least 2 credits from among these Intermediate courses:			
RENEWELC 10482101	Introduction to Wind Energy Technology	3	1-4
BIOFUELS 10484120	Introduction to Biofuels	2	1-2
RENEWELC 10482138	Introduction to Photovoltaic Technology	2	2-0
BIOFUELS 10484160	Introduction to Biomass Energy (Online)	3	3-0
Choose additional credits from the following courses to reach a total of 12 credits:			
IND MECH 10462320	DC/AC Circuits	3	0-6
RENEWELC 10482103	Photovoltaic Systems and the National Electric Code	1	1-0
RENEWELC 10482135	Advanced Photovoltaic Electives	3	3-0
RENEWELC 10482137	Photovoltaic Site Assessment	1	1-0
RENEWELC 10482140	Grid Connected Photovoltaic System Design	1	1-0
RENEWELC 10482141	Grid Connected Photovoltaic Systems Installation Lab	1	0-2
RENEWELC 10482142	Off Grid Photovoltaic System Design	1	1-0
RENEWELC 10482143	Off Grid Photo Systems Installation Lab	1	0.5-1
RENEWELC 10482149	Photovoltaic Technical Sales	1	1-0
RENEWELC 10482102	Wind Systems Technician 1	3	1-4
RENEWELC 10482152	Wind Systems Repair and Maintenance	2	2-0
RENEWELC 10482153	Wind Turbine Installation	2	0.5-1
RENEWELC 10482154	Advanced Wind Systems Electives	3	3-0
RENEWELC 10482156	Wind Turbine Design and Construction	3	1.5-3
BIOFUELS 10484121	Introduction to Ethanol Fuel	1	1-0
BIOFUELS 10484130	Introduction to Biodiesel Fuel	1	1-0
BIOFUELS 10484161	Anaerobic Digestion and Biogas Technology	1	1-0
GLBL ED 10140112	Renewable Energy for the Developing World	3	1-0

Respiratory Therapist

Program Number: 105151

Associate in Applied Science

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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			
<i>The following courses should be taken during the petition process, prior to program acceptance.</i>			
ENGLISH 10801195	Written Communication	3	3-0
CHEM 20806201	General, Organic & Biological Chemistry	5	4-2
First Semester			
RESPC 10515111	Respiratory Survey	3	3-0
RESPC 10515173	Respiratory Pharmacology	3	3-0
MEDTERM 10501101	Medical Terminology	3	3-0
BIOLOGY 20806206	General Anatomy and Physiology	4	3-2
Second Semester			
<i>Choose from Microbiology or General Microbiology:</i>			
BIOLOGY 20806273	Microbiology-University Medical	5	3-4
BIOLOGY 20806274	General Microbiology	5	3-4
RESPC 10515171	Respiratory Therapeutics 1	3	2-2
RESPC 10515172	Respiratory Therapeutics 2	3	2-2
RESPC 10515174	Respiratory/Cardiac Physiology	3	3-0
RESPC 10515175	Respiratory Clinical 1	2	0-0
Summer Term			
SPEECH 10801198	Speech	3	3-0
Third Semester			
RESPC 10515176	Respiratory Disease	3	3-0
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

Retail Management

Program Number: 901044CERT

Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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			
FSHNMKTG 10104124	Retail Management	3	3-0
SUPDEV 10196191	Principles of Supervision	3	3-0
FSHNMKTG 10104123	Merchandise Plan/Control	3	3-0
FSHNMKTG 10104194	Visual Merchandising	3	2-2

Risk Management & Insurance

Program Number: 901621CERT

Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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			
INSMGT 10162125	Intro to Business Insurance Contracts (AAI 82)	3	3-0
INSMGT 10162126	Introduction to Loss Investigaton (AIC 33)	3	3-0
INSMGT 10162131	Introduction to Employee Benefits	1	3-0
INSMGT 10162133	Managing Business Risks	3	3-0
INSMGT 10162135	Detecting Employee Fraud	3	3-0
INSMGT 10162140	Risk Management and Insurance Internship	2	0-0

Sales Academy

Program Number: 901042CERT

Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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			
MKTG 10104104	Selling Principles	3	3-0
FSHNMKTG 10104124	Retail Management	3	3-0
MKTG 10104160	Sales Management	3	3-0

Sheet Metal Construction

Program Number: 504321

Apprenticeship Completion

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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			
SHEETMTL 50432571	Tech Sheet Metal Semester 1	4	6-2
Second Semester			
SHEETMTL 50432572	Tech Sheet Metal Semester 2	4	6-2
Third Semester			
SHEETMTL 50432573	Tech Sheet Metal Semester 3	4	6-2
Fourth Semester			
SHEETMTL 50432574	Tech Sheet Metal Semester 4	4	6-2

Small Business Entrepreneurship

Program Number: 311451

A One Year Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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			
SMLBUS 10145105	Operations Management	3	3-0
SMLBUS 10145106	Small Business Marketing	3	3-0
SMLBUS 10145117	Introduction to Entrepreneurship	3	3-0
SMLBUS 10145185	Customer Service Management	3	3-0
MATH 10804123	Math with Business Applications	3	3-0
ENGLISH 10801195	Written Communication	3	3-0
Second Semester			
ACCTG 10101106	Accounting Fundamentals	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
SUPDEV 10196191	Principles of Supervision	3	3-0
	Required Technical Course Selection		
Technical Course Selection Options			
BUSADM 10102160	Business Law 1	3	3-0
MKTG 10104111	Innovative Trends in Marketing	3	3-0
MKTG 10104114	Social Media Principles	3	3-0
FSHNMKTG 10104118	Store Operations	3	1-0
MKTG 10104169	Internet Marketing	3	3-0
MKTG 10104180	Global Marketing	3	3-0

Social Media

Program Number: 902012CERT

Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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
Three Required Courses			
MKTG 10104114	Social Media Principles	3	3-0
GRDSGN 10201198	Social Media/Web Design Strategies	3	3-0
JOURNAL 20801262	Social Media Writing	3	3-0
One Elective			
<i>Student must also complete at least one course (minimum 3 credits) in the following electives:</i>			
MKTG 10104115	Capstone Campaign	3	3-0
MKTG 10104162	Mobile Marketing (Social Media)	3	3-0
VICOM 10206143	Digital Story Telling	3	0-6
JOURNAL 20801253	Documentary Storytelling	3	2-2
SOC 20809291	Technology and Society	3	3-0

Steamfitting-Construction Apprentice

Program Number: 504353

Apprenticeship Completion

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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			
STEAM 50435530	Sf Rel Sci/Math/Bpr/Drawing	4	6-2
Second Semester			
STEAM 50435531	Sf Refrig/Math Bpr/Drawing	4	6-2
Third Semester			
STEAM 50435532	Hydronic Prin/Math/Bpr/Draw	4	6-2
Fourth Semester			
STEAM 50435533	Steam Heat Prin/Math/Bpr/Draw	4	6-2
Fifth Semester			
STEAM 50435534	Sf Digital Cntr Sys/Comptr Apl	2	3-1

Stem Cell Technologies

Program Number: 900073CERT

Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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 10007118	Introduction to Human Stem Cell Concepts	1	1-0
BIOTECH 10007116	Introduction to Human Stem Cell Methods	3	0-6
Second Semester			
BIOTECH 10007119	Advanced Human Stem Cell Concepts	1	1-0
BIOTECH 10007117	Advanced Human Stem Cell Methods	3	0-6

Supporting Children's Learning

Program Number: 805222

Advanced Technical Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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			
EDSVC 10522102	EDU: Techniques for Reading and Language Arts	3	1-4
EDSVC 10522111	EDU: Guiding and Managing Behavior	3	2-2
EDSVC 10522120	EDU: Techniques for Science	3	1-4

Surgical Technologist

Program Number: 315121

A One Year Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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-Surgical Technologist Courses			
<i>Choose from one of the two General Anatomy & Physiology courses or Anatomy and Physiology 1 & 2:</i>			
BIOLOGY 10806177	Gen Anatomy & Physiology	4	3-2
BIOLOGY 20806206	General Anatomy and Physiology	4	3-2
BIOLOGY 20806207	Anatomy and Physiology 1	4	3-2
BIOLOGY 20806208	Anatomy and Physiology 2	4	3-2
MEDTERM 10501101	Medical Terminology	3	3-0
ENGLISH 10801195	Written Communication	3	3-0
SURGT 31512317	Surgical Technologist Functional Microbiology	1	2-0
First Semester			
SURGT 31512327	ST: Introduction	4	6-2
SURGT 31512328	ST: Fundamentals 1	4	6-2
SURGT 31512329	ST: Fundamentals 2	2	2-2
SURGT 31512330	ST: Clinical 1	3	0-0
Second Semester			
SURGT 31512331	ST: Surgical Procedures	4	8-0
SURGT 31512332	ST: Clinical 2	4	0-0
SURGT 31512334	ST: Clinical 3	4	0-0

Sustainable Farm to Table: Modern Meat Production

Program Number: 313163

A One Year Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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			
CUL ARTS 10316101	Principles Of Sanitation	1	1-0
CUL ARTS 10316160	Pasture to Plate	3	3-0
CUL ARTS 10316161	Protein Identification, Fabrication, and Utilization 1	5	1-8
CUL ARTS 10316162	Slaughtering	3	0-6
FARMBUS 31090310	Sustainable Agriculture: Meat Animal Production	3	6-0
Second Semester			
CUL ARTS 10316163	Protein Identification, Fabrication, and Utilization 2	5	1-8
CUL ARTS 10316164	Retail Butcher Shop Operation and Sales	4	0-8
FARMBUS 31090389	Farm to Table Capstone	2	0-0

Technical Studies Journey Worker

Program Number: 104995

Associate in Applied Science

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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
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Coursework Required for Degree

Occupational Specific Courses (39 credits)

The Occupational Specific Course area is met by a Wisconsin Apprenticeship Completion Certificate issued by the Department of Workforce Development-Bureau of Apprenticeship Standards registered program which included a minimum of 400 hours of prescribed apprentice related instruction in the Wisconsin Technical College System.

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.

Communications	6
Social Science	3
Behavioral Science	3
Math and/or Science	3
Additional General Education	6

Telecommunications Voice Data Video Installer Technician

Program Number: 504512

Apprenticeship Completion

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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			
TEL&CBL 50451591	Voice Data Video Install Sem 1	2	3.39-0.56
Second Semester			
TEL&CBL 50451592	Voice Data Video Install Sem 2	2	3.39-0.56
Third Semester			
TEL&CBL 50451593	Voice Data Video Install Sem 3	2	3.39-0.56
Fourth Semester			
TEL&CBL 50451594	Voice Data Video Install Sem 4	2	3.39-0.56
Fifth Semester			
TEL&CBL 50451595	Voice Data Video Install Sem 5	2	3.39-0.56
Sixth Semester			
TEL&CBL 50451590	Voice Data Video Install Sem 6	2	3.39-0.56

Therapeutic Massage

Program Number: 315371

A One Year Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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			
MEDTERM 10501153	Body Structure & Function - Used in a variety of Degree Programs	3	3-0
THERMASS 10537136	Musculoskeletal Anatomy for the Massage Therapist	4	3-2
THERMASS 31537340	Therapeutic Massage 1	4	2.44-5.55
THERMASS 31537342	Therapeutic Massage 2	4	2.44-5.55
Second Semester			
THERMASS 10537138	Kinesiology for the Massage Therapist	2	2-0
THERMASS 10537139	Pathology and Medical Terminology for the Massage Therapist	3	3-0
THERMASS 31537344	Specialized Techniques for Therapeutic Massage	4	2-6
THERMASS 31537346	Therapeutic Massage Clinic and Business Practices	4	2-6

Tool & Die Apprenticeship

Program Number: 504393

Apprenticeship Completion

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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			
T&D 50439593	Tech T & D Sem 1	2	3-1
Alternate First Semester Courses to Satisfy Tech T & D 1 (complete all)			
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			
T&D 50439594	Tech T & D Sem 2	2	3-1
Alternate Second Semester Courses to Satisfy Tech T & D 2 (complete all)			
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			
T&D 50439596	Tech T & D Sem 3	2	3-1
Alternate Third Semester Courses to Satisfy Tech T & D 3 (complete all)			
MACHT 50420710	Safety for Machine Tool Trade Apprentices	0	0.33-0.16
MACHT 50420720	Cut-Off Machines for Machine Trades Apprentices	0	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	0.72-0.27
Fourth Semester			
T&D 50439597	Tech T & D Sem 4	2	3-1
Alternate Fourth Semester Courses to Satisfy Tech T & D 4 (complete all)			
MACHT 50420716	Turning Machines for Machine Trades Apprentices	0	0.72-0.27
MACHT 50420717	Milling Machines for Machine Trades Apprentices	0	0.5-0.27
MACHT 50420718	Drilling Machines for Machine Trades Apprentices	0	0.72-0.27
MACHT 50420719	Grinding Machines for Machine Trades Apprentices	0	0.72-0.27
Fifth Semester			
T&D 50439598	Tech T & D Sem 5	2	3-1
Alternate Fifth Semester Courses to Satisfy Tech T & D 5 (complete all)			
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	0.72-0.27
MACHT 50420727	Geometric Design and Tolerancing for Machine Trades Apprentices	0	0.72-0.27

Sixth Semester			
T&D 50439599	Tech T & D Sem 6	2	3-1
Alternate Sixth Semester Courses to Satisfy Tech T & D 6 (complete all)			
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			
T&D 50439589	Tech T & D Sem 7	2	3-1
Alternate Seventh Semester Courses to Satisfy Tech T & D 7 (complete all)			
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			
T&D 50439591	Tech T & D Sem 8	2	3-1
Alternate Eighth Semester Courses to Satisfy Tech T & D 8 (complete all)			
MACHT 50420723	Electrical Discharge Machining for Machine Tool Trade Apprentices	0	0.72-0.27
T&D 50801500	Applied Communications for Apprentices	0	1-0
<i>Complete 1 of the following to complete the Eighth Semester Alternate Option</i>			
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

Veterinary Technician

Program Number: 100911

Associate in Applied Science

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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			
VETTECH 10091105	Occupational Preparation	1	1-0
VETTECH 10091123	Lab Animal Science 1	2	1-0
VETTECH 10091170	Veterinary Medical Terminology - Veterinary Technician Program	2	2-0
VETTECH 10091171	Animal Care and Management 1	3	2-0
ENGLISH 10801195	Written Communication	3	3-0
BIOLOGY 10806105	Principles of Animal Biology	4	3-2
Second Semester			
VETTECH 10091107	Animal Disease 1	2	2-0
VETTECH 10091109	Pharmacology 1 - Animals	2	1-2
VETTECH 10091120	Veterinary Clinical Pathology 1	3	1-4
VETTECH 10091131	Veterinary Office Procedures 1	1	1-0
VETTECH 10091172	Animal Care And Management 2	3	2-0
CHEM 10806178	Life Science Chemistry	5	4-2
Third Semester (summer)			
VETTECH 10091158	Internship - Veterinary Technician Program	4	0-0
Fourth Semester			
VETTECH 10091108	Animal Disease 2	2	2-0
VETTECH 10091124	Veterinary Clinical Pathology 2	3	2-0
VETTECH 10091127	Surgical Nursing 1	3	2-0
VETTECH 10091128	Animal Nursing 1	2	1-0
VETTECH 10091132	Veterinary Office Procedures 2	1	0-2
VETTECH 10091140	Animal Anatomy & Physiology 1	3	1-4
COMM 10801196	Oral/Interpersonal Communication	3	3-0
Fifth Semester			
VETTECH 10091110	Pharmacology 2	2	2-0
VETTECH 10091121	Veterinary Clinical Pathology 3	3	1-4
VETTECH 10091122	Advanced Topics in Veterinary Medicine	1	1-0
VETTECH 10091152	Surgical Nursing 2	3	2-0
VETTECH 10091153	Diagnostic Imaging	3	2-0
SOC 10809197	Contemporary Amer Society	3	3-0
PSYCH 10809199	Psychology Of Human Relations	3	3-0

Video Production

Program Number: 902061CERT

Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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			
VICOM 10206131	Sound Production Techniques	3	0-6
VICOM 10206130	Video Production	3	0-6
VICOM 10206148	Lighting Techniques for Video Production	2	0-4
Second Semester			
VICOM 10206128	Compositing and Special Effects	2	1-2
VICOM 10206129	Motion Design	2	0-4
	Selective (see below)	2	
Selectives			
VICOM 10206147	Introduction to DSLR Video Production	2	0-4
VICOM 10206160	Business and the Visual Arts	2	0-4

Visual Communications

Program Number: 102061

An Associate in Applied Arts D

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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 10201181	Introduction to Computer Graphics	3	0-6
PHOTO 10203130	Intro Digital Photography	2	0-4
VICOM 10206107	Presentation Design	2	0-4
VICOM 10206108	Visual Storytelling Techniques	2	0-4
VICOM 10206133	Interface Design	2	0-4
ENGLISH 10801195	Written Communication	3	3-0
Second Semester			
VICOM 10206105	Communication Design	3	0-6
VICOM 10206130	Video Production	3	0-6
VICOM 10206131	Sound Production Techniques	3	0-6
VICOM 10206161	Production Management	1	0.5-1
VICOM 10206180	Advanced Media	3	0-6
COMM 10801196	Oral/Interpersonal Communication	3	3-0
Third Semester			
GRDSGN 10201177	Web Page Design	3	0-6
VICOM 10206129	Motion Design	2	0-4
VICOM 10206142	Digital Video Production and Editing	3	0-6
VICOM 10206135	Multi-Media Presentations	3	0-6
VICOM 10206148	Lighting Techniques for Video Production	2	0-4
VICOM 10206160	Business and the Visual Arts	2	0-4
SOC 10809197	Contemporary Amer Society	3	3-0
Fourth Semester			
VICOM 10206125	Instructional Media Systems	3	0-6
VICOM 10206128	Compositing and Special Effects	2	1-2
VICOM 10206110	Introduction to 3D	3	0-6
VICOM 10206140	Portfolio Preparation - Visual Communication Program	2	0-4
MATH 10804123	Math with Business Applications	3	3-0
PSYCH 10809199	Psychology Of Human Relations	3	3-0

Web & Digital Media Design

Program Number: 102013

An Associate in Applied Arts D

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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 10804123	Math with Business Applications	3	3-0
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 Communication	1	1-0
GRDSGN 10201181	Introduction to Computer Graphics	3	0-6
Second Semester			
PSYCH 10809199	Psychology Of Human Relations	3	3-0
GRDSGN 10201112	Color	2	0-4
GRDSGN 10201151	Typographic Design	3	0-6
GRDSGN 10201163	UX Design	3	0-6
GRDSGN 10201177	Web Page Design	3	0-6
GRDSGN 10201198	Social Media/Web Design Strategies	3	3-0
Third Semester			
COMM 10801196	Oral/Interpersonal Communication	3	3-0
GRDSGN 10201121	Graphic Design	3	0-6
GRDSGN 10201156	Programming for Designers	3	0-6
GRDSGN 10201157	Social Media Concepting	3	0-6
GRDSGN 10201195	Advanced Web Page Design	3	0-6
VICOM 10206129	Motion Design	2	0-4
Fourth Semester			
SOC 10809197	Contemporary American Society	3	3-0
GRDSGN 10201158	Interactive Design Lab	2	0-4
GRDSGN 10201161	Web & Digital Media Design Portfolio Preparation	2	0-4
GRDSGN 10201178	Web Interactive & Animation	3	0-6
GRDSGN 10201189	Web Design Project Management	2	0-6
	Elective	3	
<i>Recommended Electives</i>			
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

Web & Interactive Design

Program Number: 902011CERT

Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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 10201163	UX Design	3	0-6
GRDSGN 10201178	Web Interactive & Animation	3	0-6
GRDSGN 10201195	Advanced Web Page Design	3	0-6
GRDSGN 10201198	Social Media/Web Design Strategies	3	3-0
Second Semester			
GRDSGN 10201156	Programming for Designers	3	0-6
GRDSGN 10201189	Web Design Project Management	3	0-6
VICOM 10206129	Motion Design	2	0-4

Welding

Program Number: 314421

A One Year Technical Diploma

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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			
INDMANUF 10623200	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
MATH 31804379	Vocational Math 1	1	2-0
Second Semester			
INDMANUF 10623100	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

Wind Energy Technology

Program Number: 904624CERT

Certificate

Curriculum

The courses listed below outline the requirements for completion for students officially admitted in the 2017-2018 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.

Courses		Credits/Units	Hrs/Week LEC-LAB
IND MECH 10462320	DC/AC Circuits	3	0-6
RENEWELC 10482101	Introduction to Wind Energy Technology	3	1-4
RENEWELC 10482102	Wind Systems Technician 1	3	1-4
RENEWELC 10482153	Wind Turbine Installation	1	0.5-1
INDMANUF 10623100	Safety for Industry	1	0-2
INDMANUF 10623200	Interpreting Engineering Drawings	2	0-4
IND MECH 32462303	Industrial Equipment Mechanisms 1	1	1-1
IND MECH 32462306	Industrial Fluid Power 1	1	1-1
IND MECH 10462322	Industrial Electricity and Controls	4	0-8

Degree Credit Course Descriptions

803 20803221	Hist West Civ 2	3 Credits/Units
809 20809278	Intro to Buddhism	3 Credits/Units
Focuses on Buddhism and the diverse Asian cultures with which it engages from its Indian inception and original encounter with Hindu and Jain traditions to its Chinese (including Japan et. al.) encounter with Daoism and Confucianism. Finally, Tibetan (including Mongolian et. al.) developments and development of Tantric tradition will be addressed along with the emergence of Buddhism in the West. This course will encompass not only intellectual but artistic, social and historical developments. Students will acquire factual knowledge through formative assessments such as on-line quizzes, peer-to-peer review and in-class debates leading to four summative assessment midterms. Students will be able to synthesize diverse data through a research project developed through an outline, paper and final documentary project.		
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 10101139 QuickBooks-Beginning 1 Credits/Units
 Introduction to QuickBooks-Beginning small business accounting software. Students become familiar with QuickBooks features and learn to use the software to set up a new company, manage business revenue and expenses, process payroll, reconcile bank accounts, track inventory and create useful reports. A tutorial approach will be followed using a textbook and practice problem templates. Prerequisites:

(1) Course work or experience in Microsoft Windows and using email is required.

(2) Accounting program students should take this course the second half of the semester they take 10-101-111 Accounting 1-Principles (or they may take it in a semester after they have completed Accounting-Principles). (Non-program students working in the accounting field or with small business management experience should obtain permission from the instructor to register, and take the course in a section during the first half of a semester.

ACCTG 10101140 Accounting/Business Internship 3 Credits/Units
 Opportunity for students to apply accounting or business skills in a real life business environment. Activities may include working with bank and account reconciliations, accounts payable preparation, spreadsheet work and development, preparing and analyzing financial reports, tax return preparation and other business related duties as requested by the employer.

ACCTG 10101141 QuickBooks-Intermediate 1 Credits/Units
 QuickBooks-Intermediate is the next course offering after QuickBooks-Beginning which provides student users with in-depth material on advanced topics. Topics will include inventory; Sales Tax; Time Tracking; Payroll Setup and Processing; Estimates and Sales Orders; Budgeting, Forecasting & Business Planning; and Adjustments and Year-End Procedures. A tutorial approach will be followed using a textbook and practice problem company files.

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.

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.

ADMINPRF 10106101 Keyboarding Introduction 1 Credits/Units
 Learn computer keyboarding (alphabetic and numeric keypad) using proper technique; develop speed and accuracy.

ADMINPRF 10106102 Introduction to Office Professions 1 Credits/Units
 Explore the Administrative Professional and Office Specialist programs! Discover the knowledge, attitudes, and skills necessary to succeed personally and professionally in this career field. Experience an office environment by connecting with a mentor at his or her job site. Additional topics include career success, campus resources, skills portfolio, core workplace skills, internship requirements, professional organizations, personality traits, values and work environment preferences, and self-assessment of present career skills. (Formerly called Professional Profile)

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. Lessons will include the development of using correct-order writing plans as well as the practice of appropriate tone, etiquette, and style. Students will 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
 Emphasis is placed on learning to use Microsoft Word software to efficiently and effectively produce business documents. Students will apply Word skills 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. Recommended prerequisites: Windows competency, including solid file management skills; ability to key 30 WPM. Equipment requirements: Access to a PC Windows platform computer and Microsoft Office 2016 or Office 365, including Word, PowerPoint, Excel, Outlook, Access, and Publisher.

ADMINPRF 10106108	Proofreading And Editing	3 Credits/Units
Review the parts of speech and basic grammar. Develop proofreading skills including punctuation, grammar, spelling, and usage errors. 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. Create charts and complex formulas; utilize advanced functions and apply conditional formatting; work with multiple worksheet, workbooks, and templates; develop an Excel application with data validation, worksheet protection, and macros; work with financial tools and functions; perform what-if analysis with Scenario Manager, Data Tables, and Solver. Recommended prerequisite: Windows competency, including solid file management skills		
ADMINPRF 10106133	Document Formatting	2 Credits/Units
Apply industry-standard format to business correspondence including memorandums, business letters, and publications. Format tables, design multicolumn documents, generate fillable forms, use SmartArt, and apply graphics.		
ADMINPRF 10106134	Software Projects	2 Credits/Units
This is a capstone course for the Administrative Professional and Medical Administrative Specialist programs. This course is based upon prior knowledge students learned in previous courses and uses multiple software applications, including but not limited to Microsoft Word, Excel, PowerPoint, and Access. Students manage information, apply critical- thinking skills to solve problems, research topics, and compose 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.		
ADMINPRF 10106164	Customer Contact Skills	1 Credits/Units
Find ways to deliver outstanding customer service. Improve verbal, nonverbal, and listening communication skills; develop problem-solving techniques to deal with a variety of customers; and find ways to add value to the customer interaction. Examine how technology impacts customer service, review how service breakdowns occur and how to recover, and develop campaigns for building customer loyalty.		
ADMINPRF 10106172	Administrative Office Management	3 Credits/Units
This course emphasizes the skills necessary to succeed in a global business office in the 21st century. Topics include: teamwork and interpersonal skills, travel arrangements, meetings, minute taking, online survey creation, parliamentary procedure, management and leadership skills, cultural diversity, and time, stress and anger management.		
ADMINPRF 10106182	Information Technology Concepts	3 Credits/Units
Learn about the most-up-to-date technology in an ever-changing world. Students will gain an in-depth understanding of why computers are essential in business and society, and learn the fundamentals and terms associated with computers and mobile devices, the Internet, networks, programs and apps, cloud computing, digital safety, IT ethics and security while using available technologies including video conferencing.		
ADMINPRF 10106186	Introduction to Project Management	2 Credits/Units
Plan and coordinate projects, develop timelines, determine priorities, allocate resources using graphic tools such as MS Project or MS Excel software, and increase individual and team productivity. Project management techniques and concepts are learned by participating in a team project and completing a personal project plan. Student should be in the last semester of the program OR enrolled in the Project Management for the Office Professional certificate.		
ADMINPRF 10106190	Professional Development	1 Credits/Units
Build an electronic portfolio by creating a resume, cover letter, and thank you letters. Enhance skills in interviewing, requesting references, and networking.		
ADMINPRF 10106194	Career Management	1 Credits/Units
Identify factors associated with job success: personal branding, employee benefits, ethics in the workplace, performance appraisals, proper etiquette, harassment, conflict resolution, and adopting change. NOTE: Recommended to have taken Written Communication (10-801-195) or Business Writing & Research; Student should be in last semester of the program		
ADMINPRF 10106195	Internship - Administrative Professional & Medical Administrative Specialist	1 Credits/Units
Students complete a 72-hour internship in an office setting supervised by a cooperating employer. The office setting is a business or medical office depending on the student's program. Students will correspond with the Instructor via video conferencing and written reports. Must be in the last semester before graduation.		

ADMINPRF 10106231	Business Presentations and Publications	3 Credits/Units
Explore key graphic design principles and best practices for designing and presenting. Create professional business presentations using Microsoft PowerPoint, Prezi, and/or other presentation software. Work with graphics, slide master, sound, video, charts, and tables. Add transitions, narration, and animation to enhance presentations. Explore desktop publishing using Adobe InDesign. Apply basic design principles by learning how to set type, add graphics, and place text. Develop eye-catching handouts, flyers, postcards, and posters. Prerequisite: Windows competency, including solid file management skills.		
ADMINPRF 10106240	Business Information Management	3 Credits/Units
Concentrates on the fundamentals of managing the record life cycle; rules for paper and electronic filing systems; charge-out procedures; retention schedules; transfer methods; control measurements; imaging systems and information security. Incorporates database skills including how to plan, create, and manage data; modify a database structure; relate tables; find, filter, query and sort data; create forms and reports; import, export, and link database properties.		
ADMINPRF 10160165	Medical Administrative Procedures	3 Credits/Units
This class is designed to emphasize administrative procedures in the electronic medical office environment. Using an electronic practice management program, students learn to enter patient information, schedule appointments, complete patient billing and reimbursement, create insurance claims, post insurance payments, create patient statements, and run financial and clinical reports. Other topics include telephone procedures, introduction of diagnostic and procedural coding, diversity in healthcare, effective business meetings, travel arrangements and itineraries, and qualities of a successful healthcare professional.		
ADMINPRF 10160166	Healthcare Documentation Techniques and Procedures	3 Credits/Units
Emphasizes the skilled proofreading, editing (including detailed coverage of grammar and punctuation), formatting and reference use techniques needed to produce high quality reports demanded by medical facilities.		
ADMINPRF 10160177	Specialized Insurance Claims	2 Credits/Units
Identifies in-depth insurance knowledge for private and government insurance programs including indemnity, HMO, PPO, Medicare, medical Assistance, third party liability, worker's compensation, etc. Covers knowledge of deductibles, coinsurance, copayments, exclusions, medical necessity, referrals, prior authorization, coordination of benefits, COBRA, charity Care, collections, pre-existing periods, allowed amounts, malpractice, dental, inpatient and outpatient benefits, and lifetime maximums. Claims reimbursement methods, contractual allowances, fee schedules, and other rules to facilitate timely payment of claims are also incorporated.		
ADMINPRF 10160178	Medical Language for the Business Professional 1	2 Credits/Units
This course is designed to give the beginning business student an insight into medical language. Students will explore how medical terms are formed, become familiar with the meaning of many word roots, prefixes, and suffixes, and spell, define, and pronounce many medical terms by understanding word components. Students will also exhibit mastery in the use of medical dictionaries and reference materials. Fundamentals will be discussed as they relate to evaluation of health practices by body system and by the body as a whole.		
ADMINPRF 10160179	Medical Language for the Business Professional 2	2 Credits/Units
This course is a continuation of Medical Language for the Business Professional 1 and is designed to give the business student continued insight into medical language. Students will continue exploration of medical terms, become familiar with the meaning of many word roots, prefixes, and suffixes, and spell, define, and pronounce many medical terms by understanding word components. Students will also exhibit mastery in the use of medical dictionaries and reference materials. Fundamentals will be discussed as they relate to evaluation of health practices by body system and by the body as a whole.		
ADMINPRF 10160191	Introduction to Healthcare Documentation	2 Credits/Units
This course provides an introduction to healthcare documentation practices and develops a working knowledge of basic document, medical language, and medical report formats. The student will develop technology, medical knowledge, English language, proofreading, editing, and research skills, achieving beginning production and accuracy standards.		
AGMECH 10070150	Precision Farming (Ag Management Solutions)	1 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 John Deere agricultural equipment will be covered.		
AGMECH 10070175	Power Transmissions	4 Credits/Units
The course covers the operation, power flow, diagnosis and servicing of collar shift, synchronized and power shift transmissions. The class also discusses the operation and service of wet and dry clutches differentials, planetary drive axles, P.T.O. drives and mechanical front wheel drives.		
AGMECH 10070176	Electrical Systems	5 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 10070177** **Fuel Systems** **3 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 10070178** **Implements 2** **3 Credits/Units**
 This course provides instruction in the theory of operation and service of the grain combine. Students will learn how the combine processes grain, the basic components, means of service and repair of the machine. Lab work is designed to provide students with hands-on experience on combines, grain platforms and corn heads. Service and adjustment activities include the cylinder, gear boxes and power transmission components.
- AGMECH 10070181** **Implements 1** **4 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 forage harvesting machines. Machines covered include mower conditioners, square balers, round balers and forage harvesters. Bearings, clutches, U-joints and other power transmission components also are covered.
- AGMECH 10070182** **Accessories & Electronics** **3 Credits/Units**
 This course will introduce the student to the type and operation temperature, pressure and speed sensors. Students will be introduced to the central control unit (CCU) and the hitch control unit (HCU). Students will be shown the procedure for recalling codes and transmission calibration procedures. This course will provide the electrical certification for John Deere Technicians.
- AGMECH 10070183** **Hydraulics** **4 Credits/Units**
 This course introduces the student to the hydraulic systems found on 30 through 60 series John Deere Tractors. The component configuration and operational characteristics of these tractors will be introduced. Students will service and rebuild the radial piston pump, S.C.V. and other components of the hydraulic system. Students will follow the technical manual diagnostic procedures to troubleshoot hydraulic system problems found on these tractors.
- AGMECH 10070184** **Hydraulics 2** **3 Credits/Units**
 This course provides instruction on the 6, 7 and 8000 series John Deere tractors. 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.
- AGMECH 10070187** **Occupational Experience 1 - Agricultural Equipment Technology Program** **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 10070188** **Occupational Experience 2** **2 Credits/Units**
 Students receive on-the-job experience in the areas of combines, corn heads and grain platforms. Other areas covered include set-up, tillage and planting equipment.
- AGMECH 10070189** **Occupational Experience 3** **2 Credits/Units**
 Students receive on-the-job experience in tractor engine repair, air conditioning, electrical, and hydraulic system troubleshooting. Other areas covered include service department operation, warranty work and customer contacts.
- AGMECH 10070191** **Engine Repair Theory** **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** **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 10070195** **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.

ANIM 10207101	Animation Industry Overview	1 Credits/Units
A survey course for those considering a career in digital 3D for cinema, game development, and other industries. Topics include professional standards and expectations, best practices, and an introduction to technical and artistic principles typical of studios served by the Animation and Concept Development Program. Successful completion of 10-207-101 is required for students scheduled to enter the Animation—Concept Development Program.		
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.		
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	Introduction To Digital 3D	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	Photoshop for 3D and Concepting	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 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 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	Advanced Digital 3D	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 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 10207133	Digital Set Design 2	2 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 is 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 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 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 Advanced Animation Studio 1 2 Credits/Units

This is the first class in a two-part comprehensive animation studio series. It is a project-based course in which students develop their own projects in consultation with instructors. Extensive studio time provides advanced students with large blocks of instructor and equipment access and allows an in-depth study of particular aspects of digital 3D targeting the completion of a professional quality demo-reel. Group study and interaction is encouraged and detail job tracking is required.

ANIM 10207141 Production Studio 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 10207142 Animation Internship 2 Credits/Units

Students work on-site in a professional setting or work on a specific task in consultation with a professional mentor. Regular reviews with a professional are scheduled to assess the student's progress and work quality. Details of internship arrangements can be developed between the student and the participating company as long as specific minimum course requirements are fulfilled.

ANIM 10207143 Animation Portfolio 2 Credits/Units

Each student finalizes a series of animations and other artwork to be posted online highlighting his/her capabilities. The collection is targeted to potential employers and/or to four-year animation degree programs for further education. In addition, each student prepares a professional-level 2D portfolio and a personal ID package (stationary, business cards, etc.) and is required to participate in the year-end portfolio show in conjunction with other art degree programs.

ANIM 10207144 Advanced Animation Studio 2 2 Credits/Units

This is the second class in a 2-part comprehensive studio series. It is a project-based course in which students develop their own projects in consultation with Instructors and industry professionals. Extensive studio time provides advanced students with large blocks of Instructor and equipment access, and allows an in-depth study of particular aspects of digital 3D targeting the student's particular interests. Group study and interaction is encouraged and detailed job-tracking is required.

ANIM 10207150 Animation Concepts 1 3 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 10207151 Animation Concepts 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 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 20809279 Introduction to the Archaeology of Native North America 3 Credits/Units

Provides a detailed survey of the archaeology of North America from the initial movement of peoples into North America to European contact. This course will focus on each defined archaeological culture areas in turn, including: the Eastern Woodlands, Arctic, the Great Plains, Southwest, Plateau, Northwest Coast, and Central America. Students will also be provided with an understanding of basic archaeological theory and concepts as necessary to understand the intricacies of Pre-contact Native American cultures. This course will dispel modern stereotypes about Native North American cultures by providing details on Native American lifeways.

ANTHRO 20809280	General Anthropology	3 Credits/Units
Anthropology is the study of humans and their culture, which includes a survey of three major sub-disciplines of anthropology: physical anthropology, which explores human biology, evolution and the emergence of culture; archeology, which examines the physical evidence of past cultures; and cultural anthropology, which focuses on contemporary culture.		
ANTHRO 20809281	Archaeology & Prehistoric World	3 Credits/Units
Designed for students interested in the human past, the period of prehistory where few written records exist and most knowledge of the period comes via archaeological investigations. Organized in a historical and topical fashion, the course traces the evolution of human culture through time, focusing on the best known archaeological sites in Africa, Asia, Europe, North America and Mesoamerica. Emphasis on major changes in human and cultural evolution, such as hunting, abstract thought, domestication of plants and animals, social stratification, the development of writing, the rise of states and urbanization.		
ANTHRO 20809283	Cultural Anthropology & Human Diversity	3 Credits/Units
This course focuses on exploring the range of modern human cultural diversity across the world. The class will examine the cultural practices and historical ties that constitute commonalities across cultures. Particular attention will be paid to the cultural complexity of modern urbanized societies such as that of the United States.		
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.		
ANTHRO 20809286	The Anthropology of Globalization & Multiculturalism	3 Credits/Units
This course explores the ways that our societies, cultures and experiences have been transformed, in both positive and negative ways, by the political, technological and economic changes brought about by the collapse of the old colonial systems and the continuing growth of all pervasive capitalism, consumerism and militarism.		
ANTHRO 20809287	Anthropology of Islamic Societies and Cultures	3 Credits/Units
This course will explore the social, cultural, economic and political aspects of the emergence, development and spread of Islam as a world religion. It will focus on Islam in 7th century Arabia, how the religion changed in the time since the 7th century and as Islam moved out of Hijaz into Africa and Asia, and its historical and continuing encounters with the West.		
ANTHRO 20809288	Human Biology & Physical Anthropology	3 Credits/Units
This course has been designed to give students a forum in which to explore the biological nature of the human species. Through this course, students will examine the current state of knowledge in anthropology regarding the genetic and biological diversity of the human species, the place of humanity in the primate and mammalian family trees, as well as of the evolution of the human line since its separation from that of apes.		
ANTHRO 20809289	World Regional Geography	3 Credits/Units
World Regional Geography introduces students to the basic physical and cultural geographies of the world's major regions (e.g., Central Asia, the Caribbean). Emphasis is placed on exploring what makes each region environmentally and culturally distinct, on regional human-environment relationships and associated environmental issues, and on the historical and contemporary linkages between the world's regions.		
<p>Course themes are placed in the context of globalization, including its historical periods (e.g., European colonialism). The world's regions have become increasingly interconnected through transnational flows of people, plants, capital, and microbes, among other things. This course examines how and why</p> <p>the world has become more interconnected, and how globalizing processes have shaped the political, economic, ecological, and cultural character of each world region.</p>		
ANTHRO 20809292	Agriculture, Food, and Society	3 Credits/Units
Examines the fascinating yet often thorny intersection of agrofood systems, the environment, politics, and society. Students will be exposed to case studies from both the past and present and from throughout the world.		
ARABIC 20802240	Intro to Modern Arabic 1	3 Credits/Units

Intro to Modern Arabic 1 begins with a thorough study of the Arabic sound and writing system, with the simultaneous introduction of conversational skills in Modern Standard Arabic, the standard written and literary form of Arabic used in educational institutions throughout the Arabic-speaking world. Modern Standard Arabic is the language of newspapers and literature, as well as that of formal speeches and news broadcasts. This course fulfills the needs of those wishing to pursue studies of the Qur'an and classical texts as well as those wishing to be fluent in contemporary Arabic in both its written and formal spoken forms. Knowledge of this form of Arabic can serve as a basis for further studies of regional dialects. At the conclusion of the course, students will be able to speak and write using a basic vocabulary and thorough understanding of the Arabic writing system. This course, combined with Intro to Modern Arabic 2 transfers to the University of Wisconsin-Madison as equivalent to the 5 credit African Lang. & Lit 321: First Semester Arabic.

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

Intro to Modern Arabic 2 builds on the basic understanding of the Arabic sound and writing system and conversational skills in Modern Standard Arabic established in Intro to Modern Arabic 1. Modern Standard Arabic is the language of newspapers and literature, as well as that of formal speeches and news broadcasts. This course fulfills the needs of those wishing to pursue studies of the Qur'an and classical texts as well as those wishing to be fluent in contemporary Arabic in both its written and formal spoken forms. Knowledge of this form of Arabic can serve as a basis for further studies of regional dialects. At the conclusion of the course, students will be able to speak and write about themselves with complete control of the Arabic writing system. This course, combined with Intro to Modern Arabic 1 transfers to the University of Wisconsin-Madison as equivalent to the 5 credit African Lang. & Lit 321: First Semester Arabic.

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

This course examines the way one perceives the man-made environment, how to better understand it and related disciplines. An overview of architecture and its elements including design, history, terminology, sustainable design, urban design and landscape architecture will be presented.

ARCHT 10614101**Architectural Theory 1****3 Credits/Units**

A survey and examination of key underlying design tenets, theory, philosophies; and social, cultural and behavioral factors in applied environmental settings. Theoretical design principles are introduced in lecture and readings that incorporate seminal works of architecture. Students combine the creation of collage diagram analysis with intensive writing experiences as a model for learning theoretical design principles.

ARCHT 10614111**Architectural Graphics 1****3 Credits/Units**

Emphasizes architectural drafting and the theory of drafting. Proper architectural lettering, line work and use of drafting tools are discussed. Orthographic projector, isometric, axonometric perspective drawings, contours, shade and shadow are covered in the first semester. Massing studies using the software "Sketch up" is also incorporated.

ARCHT 10614112**Architectural Graphics 2****3 Credits/Units**

Using the latest release of AutoCAD, students develop a preliminary set of Construction Document drawings for a residential project. Emphasis is placed on CAD standards, drawing set organization, building element coordination and plotting. Drawing types range in scale from site plans to wall sections. Relevant zoning and building code requirements are reviewed. Prerequisites: 10-614-111 and 10-614-113.

ARCHT 10614113**Intro To CAD-Architectural****3 Credits/Units**

Major emphasis is placed on learning the basic commands necessary to complete two-dimensional construction drawings for the architectural community. Approximately 50 percent of the course is spent on lecture/demonstrations concerning software commands and procedures, while 50 percent of the course is spent in on developing operating skills. A basic understanding of Windows and file management is necessary for success within the course. The current version of AutoCAD is used as the teaching tool Co-requisite: Architectural Graphics 1, 10-614-111,or consent of instructor.

ARCHT 10614114**Advanced CAD****2 Credits/Units**

Students use the latest release of AutoCAD to develop CAD Manager skills by using the program efficiently and consistently. Topics include trouble shooting, file management, CAD standards, template creation, plotting styles, keyboard commands, dynamic block creation, macros and custom toolbars. Working in project teams, students will produce a preliminary set of coordinated AutoCAD drawings for an offsite owner.

ARCHT 10614115**Introduction to Revit****3 Credits/Units**

Students are introduced to the industry's leading 3D Building Information Modeling (BIM) software, learning commands for creating parametric BIM models that incorporate both architectural and structural components. These models are used to develop and redline a set of commercial construction documents incorporating site plans, floor plans, elevations, sections, details, schedules and renderings. Family creation is introduced.

ARCHT 10614118**Design Communications****2 Credits/Units**

Studio course in techniques and conventions of graphic communication as an aid in the design process. It covers graphic principles, media, sketching and perspective drawing techniques. Emphasis is on developing drawing and rendering skills using pencil, color marker and pastels. Students generate sketches, presentation plans, one- and two-point perspective drawings and use these drawings to generate a variety of architectural presentations. Prerequisite: 10-614-111.

ARCHT 10614119 Digital Architectural Rendering 1 Credits/Units

Students are introduced to a variety of architectural digital rendering techniques and workflows for a variety of industry leading platforms. Workflows for producing architectural graphics for multiple project phases from programming and conceptual design to photorealistic rendering will be explored. Students will gain real world rendering workflows for projects in Autodesk Revit, Autodesk 3DS Max and SketchUp.

ARCHT 10614120 Professional Practice 2 Credits/Units

This course will examine the professional environment in which the architectural technician works related to the organization and conduct of a design/construction practice. Learners will examine this aspect of the profession through a number of different lenses: procuring employment, state laws governing architectural practice, project budgeting, client management, project delivery/team organization modes, contracts and legal issues, risk and liability management, product specifications and substitutions, and construction administration, dispute resolution, and social responsibility. The goal of the course is to broaden and deepen learners' understanding of the profession, its role in society, and his or her place in it.

ARCHT 10614121 Construction Materials - Architectural Technology Program 3 Credits/Units

Emphasizes materials used in building construction and their manufacture and application in various construction systems from wood frame to masonry, steel and precast concrete. Basic properties of materials are discussed as well as how, when and where to use them.

ARCHT 10614122 Revit MEP 2 Credits/Units

Using the industry's leading 3D architectural modeling software, students will incorporate mechanical, electrical, and piping systems into an architectural BIM model. Building Information Modeling (BIM) concepts and advantages will be discussed throughout the course. Coursework will run in conjunction with skills developed in Intro to Revit. Students will be developing vignettes for each building system type using Revit.

ARCHT 10614123 Electrical and Mechanical Systems 4 Credits/Units

Covers the basic principles of plumbing, electrical, lighting, daylighting, HVAC, fire safety, sprinklers, energy efficient design, vertical transportation and acoustics found in buildings today. Particular attention will be paid to the International Building Code and its impact on these systems. Guest speakers and a small student designed project will augment the course.

ARCHT 10614132 Building Estimating 2 Credits/Units

Studies problems and responsibilities of the estimator, including plans, specifications and published construction cost data. Emphasis is on understanding estimating techniques and methods of preparing estimates and take-offs.

ARCHT 10614135 Building Codes 2 Credits/Units

Emphasis is placed on the study of the International Building Code and the Uniform Dwelling Code. The student will become familiar with using the code and will acquire a general knowledge of codes, standards and federal regulations.

ARCHT 10614142 Architectural Detailing 2 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. Field trips and guest lecturers from the architectural, engineering and construction industry will supplement the course.

ARCHT 10614145 Architectural Design Studio 4 Credits/Units

Covers the basic skills used in the building design process. Introduces the student to building siting and massing, program analysis, building circulation, space flow diagrams, adjacency studies, and building context. The design process continues with the integration of the structural steel framing. The student will design the framing plans as well as complete the calculations for the sizing of the individual steel members.

ARCHT 10614152 Introduction to Sustainable Design and LEED 2 Credits/Units

The course provides the learner with an overview of sustainable design relevant to the design and construction industry, while concentrating on accreditation within the US Green Building Council LEED® (Leadership in Energy and Environmental Design) v.3 sustainable design program. Concepts discussed: the need for sustainable design, architects as stewards of the environment, construction activities, site selection, stormwater management, landscaping choices, building energy and atmosphere, indoor environmental quality, materials and resources and the Green Associate LEED® exam. Guest speakers and field trips provide additional support.

ARCHT 10614154 Site Design 3 Credits/Units

Introduces the student to the basic design issues of the urban environment. Explore building massing and site analysis as they relate to the urban context. Learn about vehicular and pedestrian circulation, zoning analysis, contour manipulation and basic plant material selections. Course places a strong emphasis on in-class presentations utilizing the use of multimedia digital technology.

ARCT 10614155 Advanced Revit 2 Credits/Units
Students develop proficiency in skills introduced in Intro to Revit, including modeling, family creation, design options, importing, rendering, and exporting with the current version of Revit Architecture. Particular emphasis is placed on advanced modeling and family creation. This class also introduces new concepts related to creating and managing 3D BIM models including defining site topography and site-related features, massing, phasing, file linking, and worksharing. Competence will be demonstrated through performance on the CAD station, through saved projects, and through submitted printouts that will include both construction documents and rendered images. For one project, students will be working within a group and submitting a joint project, during which students will develop the essential worksharing skills required to complete large-scale building projects that require multiple drafters. Prerequisites: Architectural Graphics 1, 10-614-111; Intro to CAD-Architectural; 10-614-113; Intro to Revit, 10-614-115.

ARCT 10614178 Building Structures 4 Credits/Units
Study of forces that act on a structural member. These forces affect all types of structures including parts of machines. This course will emphasize the use of statistics as it applies to building structures. Students look at types of force systems, vectors, resultant forces, moments, truss analysis and reactions. Strength of Materials provides the various analytical tools necessary for the sizing of specific structural members based on the loading conditions and strength of the material. The student will gain the knowledge necessary to calculate the sizes of members made of specific materials including wood, steel and masonry.

ARCT 10614193 Job Orientation 1 Credits/Units
Occupational information prepares students to seek employment. Includes personal data sheets, job interviews, portfolio design, and letters of introduction and recommendation. Former graduates are invited to discuss needs of students before employment. Representatives of labor, management, business and the professions are invited to discuss points of interest toward becoming an employee. Prerequisite: third-semester standing.

ARCT 10614194 Portfolio Preparation for Architectural 1 Credits/Units
Techniques and conventions of developing an architectural portfolio will be addressed as students generate personal portfolios for use in seeking employment. Emphasis is on developing professional documentation of work accomplished in school and related activities, both in hard copy and electronic format. Former graduates are invited to discuss current trends in hiring and what makes a portfolio stand out. Each student will display their portfolio in the annual Architectural Technology Portfolio Show to take place each Spring.

ART 20815200 Art History: Ancient to Medieval 3 Credits/Units
Surveys the development of Prehistoric, Ancient through Medieval art and architecture found throughout Europe, the near East and Egypt. 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 and cultural contexts for these movements.

ART 20815201 Basic Design 3 Credits/Units
Design Fundamentals introduces students to the elements of art (line, texture, color, shape and value). Students will investigate how these elements can be manipulated using various principles of design to achieve different effects. Basic color theory will be covered.

ART 20815202 Color & Design 3 Credits/Units
Color and Design provides involvement with practical and theoretical color problems while building knowledge of advanced design concepts.

ART 20815203 3-Dimensional Design 3 Credits/Units
In this course students explore different ways of manipulating form and space. Projects will introduce students to basic techniques such as modeling, construction and carving.

ART 20815205 Drawing Fundamentals - Liberal Arts Transfer 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.

ART 20815208 Contemporary Art Survey 3 Credits/Units
Examines contemporary art trends, focusing on European and American art produced from 1950-the present. Artists' motivations, intentions, and processes will be considered in relationship to general developments in contemporary art. Traditional media considered will include painting, sculpture, and photography. Recent innovations in media will also be recognized, such as installation, performance, and new technology.

ART 20815210 Art History: Renaissance to Modern 3 Credits/Units

Surveys the development of European and American art and architecture from the time of the early Renaissance in Italy through the first quarter of the 20th century. 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 and cultural contexts for these movements.

ART 20815211 Art History: Women In Art 3 Credits/Units

This course will present a broad survey of selected outstanding women artists from the 12th to the 20th century. The focus is on painting, sculpture and mixed media from the Medieval Era to the Modern Era, considering a variety of individual European and American artists and their works.

ART 20815214 Modern Art Survey 3 Credits/Units

Introduces students to modern art's most influential movements, focusing on European and American art produced between 1880-1950. Painting, sculpture, and photography will be the primary media considered for this time. The principal ideas of these movements will be discussed in relation to their wider intellectual, social, technological, and aesthetic context.

ART 20815215 Drawing 2 3 Credits/Units

Drawing 2 explores a variety of drawing media and techniques through projects that encourage students to consider subject/content relationships. Students will develop conceptualization skills that will prepare them for working on independent projects.

ART 20815218 Independent Projects in Studio Art 3 Credits/Units

This course is designed for students who wish to pursue an individual portfolio building project. Students are expected to have experience with chosen artistic media, so they can rely on a certain level of competency as they pursue an independent project. As students continue to develop technical skills, they will also focus on concepts and content as they build a portfolio.

ART 20815219 Life Drawing 1 3 Credits/Units

Life Drawing introduces students to drawing the figure in a variety of situations. Students will use different drawing media and techniques as they explore both descriptive and expressive ways to depicting the human figure. Includes study of human anatomy.

ART 20815220 Life Drawing 2 3 Credits/Units

Continuation of life drawing with emphasis placed on expression, articulation, dramatic effect and refinement of technique.

ART 20815221 Life Drawing 3 3 Credits/Units

Continued emphasis on expression, articulation, and refinement of technique with increased attention to personalized direction.

ART 20815232 Digital Design Fundamentals 3 Credits/Units

A comprehensive course to introduce the tools and functions of four essential digital design programs. Learn to create and edit vector artwork in Adobe Illustrator, create and edit photographic content in Adobe Photoshop, develop 3-D forms with SketchUp, and build a website with Adobe Dreamweaver to display a portfolio of the art works and projects created. Out of class work time and reading and some writing is required in addition to in class instruction, work time and critique participation.

ART 20815234 Photography - Liberal Arts Transfer 3 Credits/Units

This is a basic course in 35mm black-and-white photography featuring instruction in camera operation, film developing, printing and mounting techniques. Students provide their own cameras and film.

ART 20815235 Creative Photography 3 Credits/Units

Reviews and expands digital camera and Photoshop techniques. Expression through photography as a fine art is developed through a series of problems stressing personal vision and mastery of the photographic media.

ART 20815236 Advanced Creative Photography 3 Credits/Units

This course continues the exploration of photography as a fine art as presented in Creative Photography. Further exploration of camera and darkroom techniques intended to foster the understanding of photography as a means of artistic expression.

ART 20815239 Digital Photography 3 Credits/Units

Provides an introduction to the photographic process through the use of digital cameras to produce images for presentations, the World Wide Web, and electronic publication. Covers basic principles of effective composition, light, exposure and control of motion and focus. Participants provide their own digital camera.

ART 20815241 Painting 1 - Liberal Arts Transfer 3 Credits/Units

Introduces students to the basic techniques of oil painting, with emphasis on composition and color. Students will paint from classroom still life arrangements for the first part of the course. Later in the semester, students are encouraged to develop paintings that explore personal themes.

ART 20815242 Painting 2 3 Credits/Units

Painting 2 is an intermediate level painting course emphasizing the development of conceptualization skills. Painting projects encourage students to respond to a general theme, subject, or concept by developing a unique and personal image. Students can respond to assignments by working in various paint media (oil, acrylic, watercolor, or collage).

ART 20815253	Jewelry 1	3 Credits/Units
This course is an introduction to basic jewelry making techniques through technical demonstration and individual projects covering simple forming, fabricating, lost wax casting, cold forging and finishing techniques.		
ART 20815254	Jewelry 2 - Liberal Arts Transfer	3 Credits/Units
Jewelry 2-Art Metal gives an introduction to silver smiting, chasing, repousse and advanced stone setting.		
ART 20815256	Art Metal Welding	3 Credits/Units
Designed to increase the understanding of the technical aspects of metal fabrication for art-related endeavours. Due to the technical nature of this class, the emphasis will be on technical concerns rather than on aesthetic concerns. It is to be realized however, that technical aspects are but one consideration when creating art.		
ART 20815290	Ceramics 1 - Liberal Arts Transfer	3 Credits/Units
Ceramics 1 introduces clay as an art medium through demonstration and experimentation with basic hand-building methods. It encourages individual involvement with the media and emphasizes personal expression and exploration of texture, form and surface decoration. This course covers electric and raku firing, relevant vocabulary and some of the technical aspects of clay.		
ART 20815291	Ceramics 2 - Liberal Arts Transfer	3 Credits/Units
Ceramics 2 covers either the development of basic wheel throwing skills or advanced hand-building techniques. Students work with glaze development through both judicious testing and empirical formulas. Electric firing and raku firing will be explored.		
ART 20815292	Watercolor 1	3 Credits/Units
This is an introductory course in watercolor painting. Students will learn about the media and investigate various applications. There will be emphasis placed on composition and color as students develop paintings from both classroom still life arrangements and personal sources.		
ART 20815294	Ceramics Sculpture 1	3 Credits/Units
Focuses on developing the ability to make by hand, ceramic sculpture through creative projects. Forming techniques, glazing and kiln stacking are an integral part of the class and are learned through hands-on activities. Students make creative and innovative sculpture in this laboratory class as well as research and critique works of art.		
ART 20815295	Ceramics Sculpture 2	3 Credits/Units
This course is a continuation of Sculpture 1.		
ART 20815296	Ceramics Firing Techniques/Alternative Methods	3 Credits/Units
The class will focus on different firing techniques. Techniques covered would be Raku, sawdust firings, the use of saggars at different temperatures, vapor glazes and primitive pit kilns, as well as more traditional luster firings and other low temperature techniques. Surface treatments to pots that enhance the uniqueness		
of the firing would be stressed. Students will have the opportunity to build kilns and manage the firings themselves. If possible, the class would try to have pieces in, and help with, a wood firing and salt firing.		
The class will meet in the Downtown Ceramics studio as well as at the Commercial Ave Campus for some firings.		
ART 20815297	Watercolor 2	3 Credits/Units
Continuation of Watercolor 1.		
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).		
AUTMFG 10628168	Robotics for Industrial Automation 2	2 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.

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| AUTMFG 10628451 | Integration of Mechanisms and Controls 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. | | |
| AUTMFG 10628500 | Introduction to HMI and SCADA Development | 2 Credits/Units |
| This class is designed to give students the knowledge necessary to troubleshoot and maintain a SCADA (supervisory control and data acquisition) system. This includes control strategies, controllers and IO, as well as system software database connections and HMIs. | | |
| AUTOBODY 31405374 | Collision Occup Orient | 2 Credits/Units |
| Introduces the computer electronic system for repair of unibody vehicles, and proper anchoring and pulling procedures. Instruction on removing and replacing drivetrain components is included. The proper care and protection of on-board computers in autos is stressed. Sheet metal alignment, and frame and unibody straightening, along with procedures for restoring severely damaged vehicles are studied. | | |
| 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 |
| Application of replacement procedures for structural panels such as front and rear rails, rocker panels, A- pillars, B-pillars, and floor pans. Servicing and removal of drivetrain, suspension steering and other related components utilizing industry accepted procedures. Understanding suspension and wheel alignment angles and diagnostic procedures. | | |
| 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 |

Students become familiar with the tools, machines and equipment used to repair automotive engines. Emphasis is placed upon the development of diagnostic ability and work skills.

AUTOMECH 32404339	Braking Systems	5 Credits/Units
This course covers fundamentals of automotive brake systems including drum brakes, disc brakes, hydraulic systems, power brakes and anti-skid systems. Covers wheel and tire diagnosis and repair. Steering and suspension safety inspection is covered. Laboratory work stresses brake overhaul and component reconditioning and troubleshooting of brakes.		
AUTOMECH 32404340	Service Repair Procedures - Automotive Technician Program	5 Credits/Units
The theory, design and operation of the automobile engine, along with maintenance, light-duty repair and safety inspection are studied. Engine lubricating, cooling, exhaust systems and headlight aiming are studied and serviced. Theory and proper use of hand tools, test equipment, sealants, and fasteners are emphasized.		
AUTOMECH 32404341	Suspension & Steering Systems	5 Credits/Units
Covers basic principles of passenger car construction, suspension, and wheel alignment angles. Laboratory work stresses inspection, correction or replacement of all suspension parts and the role they play in proper vehicle handling and operation. Alignment procedures and the use of modern wheel alignment machines and troubleshooting are stressed.		
AUTOMECH 32404355	Automatic Transmissions	5 Credits/Units
Students study the electrical, mechanical and hydraulic systems of the modern automatic transmission and transaxle. Demonstrations and practice provide the opportunity to become proficient in diagnosis, service and complete rebuilding of these systems.		
AUTOMECH 32404356	Manual Drivetrain & Axles	5 Credits/Units
Clutches, standard transmissions, manual transaxles, drivelines and differentials are studied. Demonstrations and practice provide the opportunity to become proficient in diagnosis, service and complete rebuilding of these systems.		
AUTOMECH 32404357	Driveability Diagnosis	5 Credits/Units
Practical application of principles, concepts and diagnostic abilities covered in the three-prerequisite course. Advanced electrical/electronic diagnostic applications will reinforce prior competency development.		
AUTOTEC 10602102	Service Repair Procedures	4 Credits/Units
Automobile engine theory, design and operation are studied. Other studies included are the diagnosis and repair procedures of the engine cooling, lubricating and exhaust systems. Batteries, starting and charging systems are covered in detail along with the proper use of meters and the latest test equipment. Shop safety and proper use of hand tools is emphasized. Please note:		
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 10602125	Electrical and Electronics Systems 1	2 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 10602127	Electrical and Electronics Systems 2	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	4 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 Analysis	4 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 10602153	Manual Drivetrains & Axles	4 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 10602154 **Fluid Power 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 10602156 **Comfort Control 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** **4 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** **2 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 **Automobile Accessories** **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 **Technical Suspension & Steering** **4 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 **Powertrain Management Technology** **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** **4 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. Viennoiserie, both laminated such as croissant, Danish and Kringle, and non-laminated products as Brioche and Gibassier are produced. Students learn both handcrafted and machine methods in the make-up of these products.

BAKING 31314305 **Chocolate** **2 Credits/Units**
 Students are introduced into the world of chocolate. The history and production of chocolate is discussed. Learners sample a wide variety of chocolates from different companies, as well as specific types of chocolate. Products are made using these different chocolates and then compared and evaluated. After learning to temper chocolate, both molded and hand dipped chocolates are produced.

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 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 31314325 **Pastries** **3 Credits/Units**

Students develop manual baking skills and a working knowledge of the production and finish of various straight yeast dough such as breads and rolls; sweet dough; pate choux, pastry cream, cheesecakes, and frozen desserts. Students learn both handcrafted and machine methods in the make-up of these products.

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, along with dessert sauces, and plating techniques. 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	4 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, Danish and Kringle, and non-laminated products as Brioche and Gibassier. Production methods and speed are emphasized. Cooked custards and crepes are also introduced.		
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	1 Credits/Units
Students learn to properly cook sugar and isomalt. Basic sugar techniques, such as poured, blown and pulled sugar are practiced. Gum paste amenities are created. Decorative chocolate techniques such as chocolate clay, piping and spraying are practiced. Students create a final 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 31314380	Finishing	3 Credits/Units
Students will learn how to finish baked cakes, cookies, bars, pastries, and other items from their basic state to the completion of icing, decorating, and presenting the finished item to customer satisfaction and baking industry standards.		
BAKING 31314384	Cake Decorating	3 Credits/Units
Provides students with hands-on practice in the basics of production cake decorating and decorative bakery work, with attention given to the techniques of icing cakes. Cake decorating areas include script, borders, drop and nail flowers, as well as the use of edible images. Students practice icing cakes and decorating them in a timely manner. Emphasis is placed on accuracy and speed of decorating to simulate industry conditions.		
BAKING 31314386	Plated Desserts	2 Credits/Units
Provides hands-on practice with pastry and decorative bakery work. Students learn all aspects of plated dessert techniques from plate selection to product design and appropriate garnishes. Students are required to complete a pastry buffet.		
BAKING 31314387	Fondant and Gum Paste	3 Credits/Units
Students learn how to cover a cake with fondant, practice borders and draping, make cut-outs and in-lays, create fondant and gum paste floral sprays, mold figures, and decorate a cake using many of these techniques.		
BAKING 31314388	Advanced Cake Decorating	3 Credits/Units
Hands-on practice with advanced cake decorating techniques is provided. Rolled fondant, modeling with gum paste and marzipan, advanced air brushing and tiered cake assembly are covered.		
BAKING 31314389	Baking Seminar	1 Credits/Units
Covers current and relevant issues related to baking and pastry arts. Guest professionals provide expertise and knowledge about specific areas in the baking industry. In depth research is conducted on selected topics. A research paper is required.		
BIOFUELS 10484120	Introduction to Biofuels	2 Credits/Units
An introduction to solid, liquid and gaseous fuels derived from all sources. This course will cover the history of fuel use, placing petroleum into its proper context of being just one of the many alternatives being exploited by humans to fulfill current demands. Topics include the history of fuel and petroleum, peak oil, economics of petroleum and biofuels, engine design and fuel requirements, agriculture and fuels, wastes, conventional ethanol production, cellulosic ethanol, algae, other alcohols (biobutanol, etc.), biodiesel, biogas (anaerobic digestion), gasification, pyrolysis, fuel quality, environmental impacts, energy independence and national security.		
BIOFUELS 10484121	Introduction to Ethanol Fuel	1 Credits/Units

This course will provide the student with a general overview of ethanol fuel. Topics covered will include fermentation and distillation chemistry, ASTM fuel testing, engine performance, and exhaust emissions. An introduction to E85 fuel systems will also be included.

BIOFUELS 10484130 Introduction to Biodiesel Fuel 1 Credits/Units

This course will provide a general overview of biodiesel fuel. Production and quality control of biodiesel fuel will be explored, and students will have the opportunity to synthesize a small scale batch of biodiesel. Topics covered will include transesterification chemistry, separation techniques, ASTM fuel testing, engine performance, and exhaust emissions.

BIOFUELS 10484160 Introduction to Biomass Energy (Online) 3 Credits/Units

This course provides an overview of energy production from biomass resources. The course explores the fundamentals of plant growth, energy yield, economics, production, and processing methods for both herbaceous and woody crops. Technologies covered include combustion, gasification, pyrolysis, fermentation, transesterification, and anaerobic digestion. Value-added bio-refining products are also examined, along with the environmental impacts of biomass energy.

BIOFUELS 10484161 Anaerobic Digestion and Biogas Technology 1 Credits/Units

Provides participants with an understanding of basic heat transfer properties as well as the biological and chemical reactions that take place in anaerobic digestion systems. Participants will also develop an in-depth knowledge of the design of anaerobic digestion systems, troubleshooting and repair methods, and workplace safety.

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.

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 20806203 Introductory Zoology 5 Credits/Units

This introductory Intro Zoology course 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

Features lectures and laboratory dealing with the human body as an integrated structural and functional unit, including basic anatomical and directional terminology, fundamental concepts and principles of cell biology, histology, integumentary, skeletal, muscular, endocrine, and nervous systems, and the special senses. It includes dissection of various fresh and preserved materials as well as examination of a human cadaver. This course is the first semester of a two-semester sequence. College-level chemistry is recommended. Introductory college level biology course recommended.

BIOLOGY 20806208 Anatomy and Physiology 2 4 Credits/Units

Anatomy and Physiology 2 features lectures and laboratory exercises 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. It includes dissection of a cat as well as examination of a human cadaver. Note: this is the second semester course of a two-semester sequence and is not acceptable where a one-semester Anatomy and Physiology course is required.

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 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. It emphasizes the structure of the human body and the functional interrelationships of the body's systems. Consideration is also given to human genetics, human evolution, ecology, and the role that humans play in the environment. This course includes three hours of lecture per week, two hours of laboratory and a one-hour discussion session. Note: this course does NOT meet the requirements for 20-806-207 or 208, Anatomy and Physiology 1 or 2, or 20-806-206, General Anatomy and Physiology.

BIOLOGY 20806262 Anatomy and Physiology for Exercise Lab 1 Credits/Units

Anatomy and Physiology for Exercise Lab is designed to provide a hands-on learning environment where students master the basic structure and function of the respiratory, cardiovascular, skeletal, nervous, endocrine and muscular systems and relate those systems to exercise. Students will also learn basic nutrition principles. The course is designed to be a co-requisite of Body Structure and Function for students pursuing a Fitness/Health Club Specialist Certificate.

BIOLOGY 20806271 Cellular and Molecular Biology 5 Credits/Units

This course addresses concepts in cellular and molecular biology, genetics and mammalian anatomy and physiology.

BIOLOGY 20806272 Organismal Biology 5 Credits/Units

This course addresses concepts in evolution and diversity of organisms, plant anatomy and physiology, and ecology.??? The Biology courses, BIO 271 and BIO 272 can be taken in any sequence. Students that take 272 before 271, should learn about the independent projects, which are writing intensive and provide Communication B credit at UW -Madison.

BIOLOGY 20806273 Microbiology-University Medical 5 Credits/Units

Microbiology addresses pathogenic and normal flora microbes (bacteria, fungi, parasites, and viruses), their structure and function, metabolism, nutrition, genetics, growth and their relationship to humans and the environment. This course examines human infectious disease including general diagnosis and treatment, transmission, host defense mechanisms, and processes used to control the growth and spread of infectious agents. This course includes an introduction to standard techniques and procedures used in the microbiology laboratory.

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 20806280 Environmental Issues 3 Credits/Units

Environmental Issues is an introductory (non-laboratory) survey course entirely appropriate for first-year students. Environmental Issues explores diverse problems of human impact on natural systems. Though fundamentally grounded on the basic principles of biology and ecology, this course is designed to encourage interdisciplinary thinking about critical environmental problems. Students explore chemical, biological, political and ethical interactions of environmental systems on scales that range from local to international. The course prepares students for Principles of Ecology and other more advanced courses in Environmental Studies. This course transfers to UW-Madison at the elementary level.

BIOLOGY 20806281 Ecology/Conservation Biology 3 Credits/Units

Ecology and Conservation Biology is an intermediate-level (non-laboratory) course, most appropriate for second-year students. A basic knowledge of ecosystem structure and function is used as a springboard to grasping the impact of human activities on natural populations. Emphasis is on computer modeling of endangered species, dwindling populations of endemics, species under threat of over-harvesting, and other groups at risk. This course requires the background knowledge of an introductory environmental science course. This course transfers to UW Madison at the intermediate level as Zoology/Wildlife Ecology 360. Offered during the fall semester.

BIOLOGY 20806286 Environmental Science 4 Credits/Units

Environmental Science is an introductory survey course appropriate for first-year students. This course includes a laboratory component and field trips designed to engage students in exploring environmental systems in the modern world. It emphasizes the interpretation of environmental data presented in graphs and figures and will sharpen student analytical skills through exercises based on both quantitative reasoning and reading comprehension. This course transfers to UW-Madison at the elementary level as IES 126.

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 10007116	Introduction to Human Stem Cell Methods	3 Credits/Units
Covers the basic methods of working with mammalian cell culture, to include aseptic techniques, media preparation, passaging and maintenance of cell lines. Students will work with hESC cultures to thaw, plate, feed, passage cells, and generate embryoid bodies. Molecular characterization includes chromosomal staining and immunodetection and imaging of cell pluripotency markers. Instruction will include imaging, including light, fluorescence, and photomicroscopy. Using cultured cells in a regulated environment will be introduced. Prerequisite: General Cell Biology, 10-007-115, and Chromatography, 10-007-104, or consent of instructor.		
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.

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 Laboratory 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
 Introduces modern molecular biology techniques including basic recombinant DNA techniques and nucleic acid analysis and purification. The polymerase chain reaction, DNA sequence analysis, and DNA fingerprinting are also covered. Lab included. Prerequisite: 1-007115 General Cell Biology, or consent of instructor.

BIOTECH 10007125 Research Methods in Molecular Biology 3 Credits/Units
 Surveys advanced techniques in molecular biology including Southern analysis, and RNA purification and analysis. The course blends discussion of concepts with practical laboratory experience. Lab included.

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, or consent of instructor and successful completion of a performance exam.

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.

BRCKMSN 50408510 Tech Brick Sem 1 2 Credits/Units
 This course description is unavailable at this time. Please contact the center offering the course for more information.

BRCKMSN 50408511 Tech Brick Sem 2 2 Credits/Units
 This course description is unavailable at this time. Please contact the center offering the course for more information.

BRCKMSN 50408512 Tech Brick Sem 3 2 Credits/Units

This course description is unavailable at this time. Please contact the center offering the course for more information.

BRCKMSN 50408513 Tech Brick Sem 4 2 Credits/Units

This course description is unavailable at this time. Please contact the center offering the course for more information.

BRCKMSN 50408514 Tech Brick Sem 5 2 Credits/Units

This course description is unavailable at this time. Please contact the center offering the course for more information.

BRCKMSN 50408515 Tech Brick Sem 6 2 Credits/Units

This course description is unavailable at this time. Please contact the center offering the course for more information.

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 strongly recommended.

BUSADM 10102114 Business Communication 3 Credits/Units

Primary focus is on developing advanced interpersonal communication skills. Topics include: effective listening, conveying ideas concisely and persuasively, and adapting one's communication style to best connect with others. Managerial applications are emphasized; examples include: successfully managing difficult ("crucial") conversations while avoiding destructive conflict, customer-facing interactions (such as complaints), business networking, negotiation tactics, and key employee interactions: performance reviews, setting SMART Goals, and disciplinary conversations. The course requires extensive "field work" to apply the concepts learned in class to the real world.

BUSADM 10102132 Strategic Leadership 3 Credits/Units

This capstone course for the Business Management program is designed to integrate and enhance skills and behaviors learned throughout the curriculum. Students gain insights from key leadership experts related to leading oneself, others, and organizational change, and apply these insights through an In-Box simulation where they are responsible for all aspects of "turning around" a failing business. A computer business simulation, where students compete against each other, reinforces learnings from prior courses and enhances an overall business perspective. Course includes an exercise in deep self-reflection, designed to build student resolve and ability to be a "high-integrity" ethical leader.

BUSADM 10102133 Topics in Tactical Management 3 Credits/Units

Focuses on refining and building students' operational management skills. The use of data analysis and research tools to solve business problems and improve performance is emphasized. Students learn tools to "listen to the customer" and use data to recommend strategies and tactics to improve and exceed customer expectations. The course explores quality systems and continuous improvement tools including Lean, Six Sigma, ISO, CQI, with an emphasis on their application to improve business processes.

BUSADM 10102134 Business Organization, Management, and Ethics 3 Credits/Units

This foundation course covers core concepts related to business strategy, marketing, operations and finance, as well as their interrelationships within an organization. Case studies and a computer business simulation are used to deepen student understanding. Corporate culture and the International dimension of business are also covered. An Ethics framework, which will be further explored in upper-level Program classes is introduced, along with a focus on the means businesses use to promote and enforce ethical behavior.

BUSADM 10102135 Project Management - Fundamentals 3 Credits/Units

This is introductory Project Management class develops skills to manage a project from start to finish using the following project management skills: defining projects; planning projects; scheduling projects; monitoring and controlling projects; project closure; and leading projects. Emphasis will be placed on applying these fundamentals, as both a participant and project leader, in case studies and group projects, using worksheet templates, project software tools and Microsoft Project software. Skills covered include but are not limited to project charters, Gantt Charts, critical paths, milestones, risk control and prioritization, project acceptance and closeout, teamwork and problem solving.

BUSADM 10102143 Management Techniques 3 Credits/Units

Focuses on the two keys to effective management: results and relationships, in the context of the traditional managerial elements of planning, organizing, directing and controlling. Students learn techniques for problem solving, critical thinking, decision-making, delegation, motivation, change management, and political savvy behavior, and apply these techniques through simulations, role-plays, and case studies. The course also emphasizes development of Emotional Intelligence ("EI"), including self-assessment, as well as learning and applying specific techniques to improve each element of EI.

BUSADM 10102150 Introduction to International Business 3 Credits/Units

Provides a basic understanding of the forces that affect business in an international environment. The following forces will be explored: economic theories, financial, dynamics of organization, socio-economics, physical, socio-cultural, political, legal, labor, and import/export practices. Sixteen different countries will be reviewed for influences on their business economy.

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 31409328	Woodworking 1A	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	3 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 sawing, surfacing, boring, sanding, and a completed final project.		
CABMIL 31409331	Woodworking 2: Materials and Processes	5 Credits/Units
Building on skills acquired in Woodworking 1, students incorporate an understanding of wood as a material to properly execute joinery and cabinetry projects. Instruction includes units in shaping, adhesives, joinery and face-frame cabinetry.		
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 projects of their choice. Students have the opportunity to experience a real work environment while completing an internship with an area employer. Areas of exploration include veneering, CNC technology and curved and circular work.		
CABMIL 31409337	Workplace Safety	1 Credits/Units
A safe working environment is not only essential, it is the law. This course covers several key areas of OSHA workplace safety, including: proper procedures for locking out and tagging equipment to be serviced, HASCOM (Hazardous Materials Communication), PPE (Personal Protective Equipment) and proper machine guarding.		
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 1	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 will be covered. Proper finish selection and safe use of finishes is emphasized.		
CABMIL 31409342	Countertops and Surfaces	2 Credits/Units
Introduces the student to the field of countertop fabrication. Plastic laminates are emphasized. Students learn about selecting proper grades and textures of plastic laminate, types of adhesives, and methods of application to secure laminate. Students also have the opportunity to experience Solid Surface (Corian) application techniques while producing their own countertop sample.		
CABMIL 31409345	Wood Finishing 2	1 Credits/Units
Building upon principles covered in Wood Finishing 1, this course will further explore the application of finishes, including wash coats, glazes and other multi-step finishes. In addition, this course will expose the learner to methods for color matching and repairing damaged finishes.		
CABMIL 31409381	Drawing 1	1 Credits/Units
Drawing is essential for quickly and accurately communicating three-dimensional ideas. This class will introduce the learner to drawing it relates to woodworking occupations. Areas of instruction include sketching techniques, orthographic and isometric projection, and hand drafting.		
CABMIL 31409382	Drawing 2	1 Credits/Units
Building on skills acquired in Drawing 1, this course provides additional experience with hand drafting, as well as an introduction to Computer-aided Design (AutoCAD).		
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.

CARP 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.

CARP 31410335 Intermediate Carpentry Lab 2 Credits/Units

Students will practice carpentry skills learned in Introduction to Construction and Construction and Remodeling 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. Students who successfully complete this practicum with a grade of B or better will receive an additional Golden Hammer credential upon graduation.

CARP 50410593 Tech Carpentry Semester 1 2 Credits/Units

This course description is unavailable at this time. Please contact the center offering the course for more information.

CARP 50410594 Tech Carpentry Semester 2 2 Credits/Units

This course description is unavailable at this time. Please contact the center offering the course for more information.

CARP 50410595 Tech Carpentry Semester 3 2 Credits/Units

This course description is unavailable at this time. Please contact the center offering the course for more information.

CARP 50410596 Tech Carpentry Semester 4 2 Credits/Units

This course description is unavailable at this time. Please contact the center offering the course for more information.

CARP 50410597 Tech Carpentry Semester 5 2 Credits/Units

This course description is unavailable at this time. Please contact the center offering the course for more information.

CARP 50410598 Tech Carpentry Semester 6 2 Credits/Units

This course description is unavailable at this time. Please contact the center offering the course for more information.

CHEM 10806127 Chemistry 1 4 Credits/Units

The first of a two-semester sequence, Chemistry 1 gives the fundamental concepts of inorganic chemistry that includes the topics of measurement, chemical nomenclature, chemical reactions and stoichiometry, atomic structure, thermochemistry, chemical bonding and solution chemistry. It emphasizes the basic principles and quantitative measurements used on chemistry. It consists of three hours of lecture and one, two-hour laboratory period per week. This course is not intended for transfer.

CHEM 10806129 Chemistry 2 4 Credits/Units

Chemistry 2 is the continuation of 10-806-127. Further study of basic chemical principles including chemical kinetics and equilibria, acid/base chemistry, and electrochemistry. It introduces properties, structures, and reactions of organic compounds. Elementary aspects of biochemistry are considered.

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 10806178 Life Science Chemistry 5 Credits/Units

Covers a wide range of topics including inorganic and organic. Topics included during the inorganic portion of the course included measurements and conversions, matter and the kinetic molecular theory, periodic table, chemical bonding, chemical reactions, solubility, gases, problem solving and solutions, equilibrium and acid-base behavior. The organic chemistry portion introduces chemical structure as well as physical and chemical behavior of organic molecules. Many of these topics are related to the field of animal science. Basic laboratory skills and techniques are emphasized.

CHEM 20806200 Liberal Arts Chemistry 5 Credits/Units

This course is designed for non-science majors seeking a one-semester chemistry course to fulfill the college-level lab science requirement. It consists of four hours of lecture, a two-hour laboratory and a one-hour quiz section each week. Emphasis on application of chemical concepts to phenomenon observed in everyday life, technology, and related social issues. Includes discussion of measurement, classifying matter, physical and chemical changes, chemical symbols, writing equations, atomic structure, nuclear changes, periodicity, states of matter, chemical bonding, the mole, solutions, acids and bases, redox reactions, fossil fuels and the history and methodology of chemistry. This course is not acceptable as a replacement for Gen Organ & Biol Chemistry, 20-806-201, or College Chemistry, 20-806-209. Recommendation: high school algebra with a "C" or better.

CHEM 20806201 **General, Organic & Biological Chemistry** **5 Credits/Units**

This course covers a broad range of topics suitable for many allied-health fields. Topics covered during the general chemistry portion of the course include measurement, problem solving, periodic table, chemical reactions, radioactivity, gases, solutions and acid-base behaviors. The organic chemistry portion introduces the structure and chemical behavior of major types of organic molecules. Also introduces the structure and function of major biological molecules such as carbohydrates, lipids and proteins. Although suitable for many programs, this course will generally not substitute for College Chemistry 1 if a program specifically requires that course or its equivalent.

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 20806213 **Organic Chemistry 1** **5 Credits/Units**

Organic Chemistry 1 is the first semester of a two semester organic chemistry sequence. It 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. Also included are the theory and interpretation of IR spectrophotometry and mass spectrometry. This course includes a three hour per week laboratory component as well as four hours per week lecture/discussion.

CHEM 20806214 **Organic Chemistry 2** **5 Credits/Units**

Organic Chemistry 2 is a continuation of Organic Chemistry 1. It includes the theory and interpretation of NMR and UV-VIS spectrophotometry; the nomenclature, mechanisms, reactions and properties of alkadienes, aromatic, aldehydes, ketones, enols/enolates, carboxylic acids, carboxylic acid derivatives, amines, aryl halides, and phenols. It includes a three hour per week laboratory component as well as four hours per week lecture/discussion.

CHEM 20806216 **Chemistry for Biotechnology** **3 Credits/Units**

This course is meant to serve as a review of foundational general chemistry to help comprehension of chemical topics encountered in biotechnology. As such it includes topics in organic chemistry and intermolecular interactions, kinetics, chemical equilibrium, including acid/base and buffer equilibrium, and basic thermodynamics.

CHEM 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.

CHINESE 20802230 **Introduction to Mandarin Chinese** **3 Credits/Units**

"Introduction to Mandarin Chinese. This course will introduce students to the fundamental phonetic system and grammar of standard spoken Chinese and written language including 400 Chinese characters. 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 20802231 **Introduction 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.

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 Civil Engineer** **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 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

10-804-116.

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. Prerequisites: 10-806-154, 10-607-149. Corequisite: 10-801-197.

CIVILET 10607161 **Project - Civil Engineering Technology Program** **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 10607171 Construction Materials -Civil Engineering Technician Program 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 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 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. Prerequisite: 10-607-147 or consent of instructor

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. Pre-requisite: Stormwater Management, 10-607-172 and Aggregates and Concrete, 10-607-149.

CIVILET 10607193 Career Development - Civil Engineering Program 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. Prerequisites:

10-801-195 and 10-607-120.

COLLSUCC 10890101 College Success and Study Skills 1cr 1 Credits/Units

This course provides learners with strategies to develop skills for success in college and in life. Learners will practice study skills, and learn ways to improve decision-making to promote success in college and the work place. This course is usually paired with a specific program and may include added content focused on program student needs.

COMM 10801196 Oral/Interpersonal Communication 3 Credits/Units

Focuses upon developing speaking, verbal, and nonverbal communication and listening skills through individual presentations, group activities, and other projects.

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 31801356 Communications 1 1 Credits/Units

Communications 1 improves critical thinking, speaking, listening and writing skills. Where possible, the course is tailored to employment situations. It differs from 31-801-351, Communications 1 (2 credits), primarily in depth.

COMM 32801350 Workplace Communication for Industry 1 Credits/Units

Workplace Communication for Industry is an introductory communications course designed to teach the speaking, listening, writing, and critical thinking skills needed in industrial occupations. The course focuses on communicating verbally with co-workers during and between shifts, as well as reading and writing documents in the workplace. A variety of job search skills are also covered, and students are introduced to essential computer skills. Individual sections might be tailored to a specific field, program, or career pathway.

COMPSOFT 10103121 Windows 10 1 Credits/Units

Introduces the Windows 10 operating system: Students will 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. 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 10103125 Access - Intermediate 1 Credits/Units

Use Microsoft Access database software to create advanced queries; modify and enhance table design; create custom forms and reports; import, export, and link database objects.

Equipment requirements: Access to a PC Windows platform computer and Microsoft Office 2016 or Office 365, including Word, PowerPoint, Excel, Outlook, Access, and Publisher.

COMPSOFT 10103132 Excel - Advanced 1 Credits/Units

Work with financial tools and financial functions, perform what-if analysis with Scenario Manager, Data Tables, Goal Seek and Solver; retrieve information from different data sources.

COMPSOFT 10103133 Excel - Beginning 1 Credits/Units

Excel Beginning is an introduction to Microsoft Office Excel spreadsheet software. Create and format worksheets and workbooks; perform calculations using formulas and functions; create charts to display data visually; use Excel tables to manage large volumes of information. Prerequisite: competency in Windows including file management skills.

COMPSOFT 10103136 Word - Intermediate 1 Credits/Units

Continuation of Microsoft Word Beginning course. Learn to use Microsoft Word's mail merge tool, design newsletters using page setup options, developing the document layout and inserting graphics. Learn to manipulate objects and use Word with other Microsoft products. Create a custom template, use document styles and themes, and learn to apply security settings to your document.

COMPSOFT 10103137 Word - Beginning 1 Credits/Units

Introduction to Microsoft's word processing software. Create, edit, and save documents. Learn to use templates, insert headers and footers, adjust page formatting and different document views. Apply formatting techniques such as changing text appearance, borders and shading, indents, tab stops, bulleted and numbered lists, paragraph alignment and separating your document in sections. Insert graphics, WordArt, and text boxes. Create and format tables, modify rows and columns, perform calculations, sort table data, customize tables. Use writing styles, create and modify footnotes, insert a table of contents page, cover page, and index page. Learn to track changes and work with pdf documents. Required: competency in Windows.

COMPSOFT 10103139 Excel - Intermediate 1 Credits/Units

Excel-Intermediate focuses on the intermediate concepts of Microsoft Office Excel spreadsheet software. Summarize and analyze data using subtotals, PivotTables, and PivotCharts. Use data tables, Goal Seek, Scenario Manager, and Solver to perform what-if analysis. Use Date, Logical, Lookup, Database, and Financial functions. Analyze statistics using statistical functions.

COMPSOFT 10103143 PowerPoint - Beginning 1 Credits/Units

This course is an introduction to Microsoft PowerPoint presentation software. Learn how to define the purpose and scope of your presentation for effective communication. Create, edit, reuse, and rearrange slide layouts; work with themes; save and print a presentation; modify text; work with images, shapes, and art; create tables, charts, and SmartArt graphics; use transitions and animations; add audio and video; record narrations; customize a slide show; create custom templates using slide, notes, and handout masters; add comments and speakers notes; deliver effective presentations; and explore Office Mix. Required: competency in Windows and experience using word processing software.

COMPSOFT 10103145 Access - Beginning 1 Credits/Units

Introduction to Microsoft Access database software. Create, edit, and use databases; add tables; create relationships; query a database; create and use forms and reports. Prerequisite: Competency in Windows.

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 and notes; track and archive messages; configure and customize Outlook; record journal entries; manage Outlook components; integrate Outlook with other Office programs.

COMPSOFT 10103169 Collaboration Tools 1 Credits/Units

Learn, compare, and analyze the successful use of collaboration and social media tools used in organizations today. Topics include online calendaring, online document editing and file sharing, social media, and video conferencing.

COMPSOFT 10103186 MS (Microsoft) Project 2 Credits/Units

Use project management software to plan a project, create a project schedule, communicate project information, assign resources and costs, and track the project's progress through completion. Working competency in Windows presumed.



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	Plans, Site and Formwork	2 Credits/Units
This course provides instruction in interpretation of plans, specifications and building codes, site preparation, the layout of footings and foundations and setting concrete forms.		
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.		
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 construction techniques and materials that are used primarily in commercial construction settings. Students will frame with steel, install metal framed doors, erect concrete forms and install suspended ceilings. Entry into apprenticeship and other commercial construction career pathways will be explored.		
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	5 Credits/Units
This course continues instruction on roof framing and introduces installation methods for roof shingles, windows and doors, soffits and fascia, exterior trim and siding. Basic stair construction is also included. Building science topics of insulation, 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 31410335	Intermediate Carpentry Lab	2 Credits/Units
Students will practice carpentry skills learned in Introduction to Construction and Construction and Remodeling 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. Students who successfully complete this practicum with a grade of B or better will receive an additional Golden Hammer credential upon graduation.		
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 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.		
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 structural, HVAC, electrical and plumbing systems in a home and how their performance can be measured and optimized to create sustainable homes.		
CONST 31410385	Construction Drawing - Construction and Remodeling Program	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 31410399	Fundamentals Of Construction	3 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.		
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.		
COOKING 60303652	Foreign/Ethnic Foods	0 Credits/Units
This course will provide a variety topics using Foreign/Ethnic Foods.		
COSMET 10502330	Making the Cut	1 Credits/Units
Making the Cut is an orientation course designed to maximize the students understanding of the Barber/Cosmetology Academy which is offered to waitlisted individuals prior to enrollment in the program. Students are introduced to the industry, receive an orientation to the program competencies, assessed on their preparedness, skill and abilities to ensure an educational match and increase the chance of successful program completion.		
COSMET 31502321	Cosmetology Techniques 1	3 Credits/Units
Introduces various services performed by the barber/cosmetologist. Emphasis is on hair analysis, shampooing, basic permanent waving and haircutting techniques, scalp and hair conditioning treatments, and introductory hair styling services. Students spend the first part of the semester working on manikins and each other. During the second part of the semester, students develop skills through instruction in the salon while working on clients.		
COSMET 31502322	Cosmetology Techniques 2	2 Credits/Units
A continuation of Techniques 1, this course emphasizes the development of advanced techniques in hair cutting, styling and permanent waving. This course also introduces the hands on application of various hair coloring techniques, chemical relaxing, manicuring, pedicuring, and facial services. Students continue to work on clients with instruction and guidance.		
COSMET 31502323	Cosmetology Techniques 3	3 Credits/Units
Emphasizes advanced training in the techniques presented in Techniques 1 and 2. Students continue to work on clients to further develop skills to prepare them for entering the job market and passing the state examination.		
COSMET 31502324	Cosmetology Techniques 4	3 Credits/Units
Continuation of Techniques 3.		
COSMET 31502325	Cosmetology Techniques 5	4 Credits/Units
Continuation of Barber Cosmetology Techniques 5		
COSMET 31502326	Cosmetology Techniques 6	4 Credits/Units
Continuation of Cosmetology Techniques 5.		
COSMET 31502327	Cosmetology Techniques 7	4 Credits/Units
Continuation of Cosmetology Techniques 6.		
COSMET 31502328	Cosmetology Techniques 8	4 Credits/Units
Continuation of Cosmetology Techniques 7.		
COSMET 31502340	Cosmetology Theory 1	5 Credits/Units
Students study the theory related to introductory salon services such as professional image, hair cutting and product knowledge. Included are terminology, care and proper usage. Students study bacteriology, decontamination and first aid procedures, trichology, and the basic theory of shampooing and conditioning hair. Basic permanent waving, hair design, and hairstyling services are also included.		
COSMET 31502341	Cosmetology Theory 2	4 Credits/Units

This course includes the anatomy and physiology of the skin and nails, manicuring, pedicuring, skin care and facial services. Advanced hair styling and chemical relaxing are included. Theories of hair coloring and hair cutting methods are continued. This course also covers the history of the industry and related governing laws.

COSMET 31502342	Cosmetology Theory 3	4 Credits/Units
Presents advanced techniques and industry trends as determined by the instructors, including advanced hair coloring techniques. Electricity as it relates to the salon is included. Preparation for taking the State Board exam begins.		
COSMET 31502343	Cosmetology Theory 4	3 Credits/Units
Theories of hair coloring and hair cutting methods are continued.		
COSMET 31502392	Cosmetology Sales and Advertising 1	1 Credits/Units
Introductory sales course stressing the proper application of sales techniques to skilled occupations. The sales and advertising techniques as applied to job disciplines are designed not only to create greater efficiency on the job, but also to improve working relationships with fellow employees and clients. Includes the application of sales approach, demonstration and close.		
COSMET 31502393	Cosmetology Sales and Advertising 2	1 Credits/Units
Students learn to recognize different types of salons and the opportunities each has to offer. Students also learn to identify and overcome obstacles that they may encounter. Students gain a firm grasp of duties of a salon employee.		
COSMET 31502395	Cosmetology State Board Review	1 Credits/Units
Prepares students to the State Board exam.		
COSMET 31502398	Cosmetology Client Relations	1 Credits/Units
This course examines client relations, service, and retention. Students explore how a business can enhance their competitive position by adopting and implementing a variety of service initiatives relating to the cosmetology industry. Topic areas range from practicing necessary customer service skills, such as communication, listening and conflict management. Creating professional cover letters and resumes enhancing employment possibilities are included in this course. Emphasis is given to the fundamentals of grammar, spelling, sentence structure and paragraph development.		
COSMET 50502521	Related Cosmetology 1	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.		
COSMET 50502522	Related Cosmetology 2	2 Credits/Units
Gain an understanding of 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.		
COSMET 50502523	Related Cosmetology 3	2 Credits/Units
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. Design, shape and trim facial hair to enhance a client's appearance. Explore the basic principles of electricity in an effort to better understand the safe handling of appliances in the salon / spa.		
COSMET 50502524	Related Cosmetology 4	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. 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.		
COURT 10170111	Court Reporting 1	4 Credits/Units
Prepares the learners to use machine shorthand (StenEd Computer Compatible Theory) to write consonants, vowels, numbers, multi-syllabic words, multi-consonant words, punctuation, and special symbols, short forms and phrases, words in their singular and plural forms, and prefixes and suffixes.		
COURT 10170112	Court Reporting 2	4 Credits/Units
Continuation of machine shorthand covering theory, keyboard, and phonetics necessary to write and read conflict-free computer shorthand. Introduces speed building while focusing on accuracy in writing, transcribing, and readback of shorthand notes. Includes vocabulary development.		
COURT 10170113	Court Reporting 3	4 Credits/Units

Continuation of machine shorthand covering theory, keyboard, and phonetics necessary to write and read conflict-free computer shorthand. Introduces speed building while focusing on accuracy in writing, transcribing, and readback of shorthand notes. Includes vocabulary development.

COURT 10170114 **Court Reporting 4** **4 Credits/Units**
 Continuation of machine shorthand covering theory, keyboard, and phonetics necessary to write and read conflict-free computer shorthand. Introduces speed building while focusing on accuracy in writing, transcribing, and readback of shorthand notes. Includes vocabulary development.

COURT 10170115 **Court Reporting 5** **4 Credits/Units**
 Continues speedbuilding and vocabulary expansion for writing and transcribing material from legal proceedings (testimony, jury charges, voir dire, expert witnesses, depositions, and opening/closing statements) and technical areas (testimony, literary, congressional, scientific, and medical). Stresses fluent and accurate readback.

COURT 10170116 **Court Reporting 6** **4 Credits/Units**
 Continues speedbuilding and vocabulary expansion for writing and transcribing material from legal proceedings (testimony, jury charges, voir dire, expert witnesses, depositions, and opening/closing statements) and technical areas (testimony, literary, congressional, scientific, and medical). Stresses fluent and accurate readback.

COURT 10170121 **CAT Class 1** **1 Credits/Units**
 Technology course for Court Reporting program that focuses on computer basics and transcript production, dictionary management, realtime translation, and reporter technology utilizing Case CATalyst software from Stenograph, LLC.

COURT 10170122 **CAT Class 2** **1 Credits/Units**
 Technology course for Court Reporting program that focuses on computer basics and transcript production, dictionary management, realtime translation, and reporter technology utilizing Case CATalyst software from Stenograph, LLC.

COURT 10170124 **CAT Class 4** **1 Credits/Units**
 Technology course for Court Reporting program that focuses on computer basics and transcript production, dictionary management, realtime translation, and reporter technology utilizing Case CATalyst software from Stenograph, LLC

COURT 10170125 **CAT Class 5** **1 Credits/Units**
 Technology course for Court Reporting program that focuses on computer basics and transcript production, dictionary management, realtime translation, and reporter technology utilizing Case CATalyst software from Stenograph, LLC.

COURT 10170131 **English for Realtime Reporters 1** **1 Credits/Units**
 Focuses on the rules of English grammar, spelling, punctuation, and capitalization, including vocabulary (word knowledge), through instruction and activities designed for students to develop spelling and vocabulary skills and demonstrate ability to apply the rules of grammar, spelling, punctuation, and capitalization to sentences, paragraphs, and transcripts through systematic testing and/or projects.

COURT 10170132 **English for Realtime Reporters 2** **1 Credits/Units**
 Focuses on the rules of English grammar, spelling, punctuation, and capitalization, including vocabulary (word knowledge), through instruction and activities designed for students to develop spelling and vocabulary skills and demonstrate ability to apply the rules of grammar, spelling, punctuation, and capitalization to sentences, paragraphs, and transcripts through systematic testing and/or projects.

COURT 10170134 **English for Realtime Reporters 4** **1 Credits/Units**
 Focuses on the rules of English grammar, spelling, punctuation, and capitalization, including vocabulary (word knowledge), through instruction and activities designed for students to develop spelling and vocabulary skills and demonstrate ability to apply the rules of grammar, spelling, punctuation, and capitalization to sentences, paragraphs, and transcripts through systematic testing and/or projects.

COURT 10170135 **English for Realtime Reporters 5** **1 Credits/Units**
 Focuses on the rules of English grammar, spelling, punctuation, and capitalization, including vocabulary (word knowledge), through instruction and activities designed for students to develop spelling and vocabulary skills and demonstrate ability to apply the rules of grammar, spelling, punctuation, and capitalization to sentences, paragraphs, and transcripts through systematic testing and/or projects.

COURT 10170170 **Court Reporting Procedures** **3 Credits/Units**
 Covers professional reporting procedures, including transcript production; daily copy reporting; using general and legal reference materials; legal citations; professional standards and ethics; technology, such as videotaped depositions and computer-assisted transcription; reporting depositions, commission hearings and business meetings; operating a freelance reporting business; and resume preparation. Requires a minimum testimony writing speed of 180wpm.

COURT 10170171	Legal Terminology	2 Credits/Units
Focuses on legal terminologies customarily encountered in the judicial system in the following areas: civil law; criminal law; and discovery, trial, and appellate processes. Methods of researching legal citations are also emphasized.		
COURT 10170172	Court Reporting Internship	3 Credits/Units
The objective of the class is to gain experience and knowledge through observation of the working reporter in the judicial and educational environment. Students will also participate by writing in actual situations relating to the freelance, courtroom, and realtime environments. Mock RPR and CRR tests are administered and mock interviews conducted. Requires a minimum testimony writing speed of 180wpm.		
CRIMJUST 10504103	Professional Development Seminar for Criminal Justice	1 Credits/Units
This course is designed for second year 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. Also incorporates the B.E.S.T. (Basic Employability Skills Training) curriculum developed by the Manhattan Area Technical College and the Kansas Department of Commerce.		
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 10504152	Emergency Management	3 Credits/Units
Introduces the student to the principles, theories, and practices of emergency management. The philosophy of comprehensive Emergency Management will be discussed including mitigation, preparedness, response and recovery. In addition, students will obtain ICS-100 and FEMA IS-700 certification.		
CRIMJUST 10504170	Introduction to Corrections	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 10504171	Private Sector Security	3 Credits/Units
This course is a comprehensive examination of the relationship of the criminal justice system to business and industrial security. It also provides an overview of the administrative, personnel, and physical aspects of the private security field.		
CRIMJUST 10504185	Introduction to Computer Forensics	3 Credits/Units
Introductory computer forensics concepts, terminology and management of digital evidence. This course will cover the identification and collection and preservation (First Responder) of computer related and digital evidence, the acquisition of digital evidence, basic forensic analysis concepts, and presentation of digital evidence to the investigator, the District Attorney's Office, judges, and to juries. The course will also cover the incorporation of digital evidence into the investigation and prosecution of criminal investigations. An application and Criminal History Check must be submitted to the Program Director prior to registration for this course.		
CRIMJUST 10504186	Introduction to Internet and Network Concepts	3 Credits/Units
Internet related investigations -- terminology and management of evidence gathered from online sources. Internet Service Provider Overview. Hacking Investigations, chatroom, e-mail, website, Phishing, online auction sites, instant messaging, newsgroups and bulletin board, internet related fraud methods, BoNets, viruses, worms, etc. This course includes includes an overview of how various computer networks work, how to read log files, IP addressing schemes, IP telephony, overview of various file-sharing networks commonly found in forensic investigations. Basic overview of network intrusion detection, response and reporting. Overview of Netanalysis, Kazaalyzer, and other standard forensic tools. An application and Criminal History Check must be submitted to the Program Director prior to registration for this course.		
CRIMJUST 10504187	Legal Issues and Digital Evidence	3 Credits/Units
This course covers the 4th Amendment, ECPA, HIPPA, FERPA, Search Warrants (computer, online), Subpoenas, Preservation Letters & 2703, and the Patriot Act as it affects digital evidence. Dealing with ISPs, Wisconsin Statutes covering computer related crimes (child pornography, use of computers to facilitate child sex crimes, child enticement, stalking, and the computer crimes statutes), Federal computer crimes statutes, corporate law and e-discovery issues. Also included are evidence in the courtroom -- presentation of data retrieved from computer or online sources, and expert testimony in the courtroom.		
CRIMJUST 10504188	Advanced Computer Forensics Concepts/Forensics Practicum	3 Credits/Units

This course is an overview of advanced computer forensics topics such as encryption, password cracking tools, data hiding techniques, stenography, anti-forensic tools and their effect on investigation, forensic problem solving (reconstruction of web pages from web cache, reverse engineering of P2P networks, images, etc.) INFO2 (Recycle Bin) files, in-depth discussion of file carving & Windows artifacts, hidden partitions, thumbs.db files, advanced MAC (modified, accessed, created) time discussion, metadata, Microsoft Vista and Bitlocker, X Box Forensics, digital deception, etc. The course will also cover an overview of how cell phone networks, cell phones, personal data assistants, and other devices work.

This course would be a culmination of skills from previous courses. Students would be expected to take a case study from beginning to the end of investigation and course process. Students would receive a case study problem, and would be expected to write incident reports, collect evidence, acquire digital evidence, and perform the forensic investigation of several types of digital evidence, write reports regarding the forensic examinations, participate in trial preparation and courtroom testimony.

CRIMJUST 10504189 Introduction to Video Evidence 3 Credits/Units

Video is one of the most powerful tools to help law enforcement investigate and solve crimes. Video is one of the most prevalent forms of evidence collected in modern criminal investigations. This course is designed to introduce the student to various aspects of video evidence within the criminal justice system. Students will gain an overview of the various types of video evidence and their respective roles in criminal investigations. Basic, practical experience will be gained in video evidence collection, report writing and court testimony. Knowledge will be tested through quizzes, written tests, and hands-on performance. An application and Criminal History Check must be submitted to the Program Director prior to registration for this course.

CRIMJUST 10504195 Mobile Forensics 3 Credits/Units

Cell phones, smart phones, PDAs, and related storage devices are a growing source of digital evidence in the forensics profession and present unique challenges for forensic examiners. This course will also introduce fundamental concepts in mobile communications, including an overview of cell phone technology and networks, sources of potential evidence, evidence handling considerations, and small device forensic processes and documentation techniques. Students will have the opportunity work hands-on with small device forensic tools and technology.

CRIMJUST 10504196 Ethics 1 Credits/Units

This course examines the ethical issues related to person-involved in the career choice of digital forensics.

CRIMJUST 10504900 Introduction to Criminal Justice 3 Credits/Units

In this course learners will distinguish between the roles and functions of courts with jurisdiction in Wisconsin; differentiate between the roles and functions of federal, state, and local law enforcement agencies; apply professional principles as a law enforcement officer; determine modern police functions and policies from an historical perspective; identify the role of law enforcement officers in American society; utilize a decision-making model; identify the characteristics of a good decision maker; describe how professionalism, ethics, and moral standards relate to a law enforcement career; practice a code of behavior; incorporate ethical decision-making strategies; describe how decisions are made; enhance an officer's critical thinking and police problem solving skills; apply principles of critical thinking, decision-making, and problem solving; identify required law enforcement policies; defend the importance of written agency policies; and distinguish between "ministerial" and "discretionary" duties.

CRIMJUST 10504901 Constitutional Law 3 Credits/Units

In this course, learners will show the structure of the criminal justice system, identify situations where constitutional rules are applicable, identify situations where an officer may use reasonable suspicion to contact a subject, identify the elements of a lawful arrest, identify search-related activities where the 4th amendment is not applicable, identify the requirements that pertain to search warrants, analyze exceptions to the search warrant requirement, identify the special requirements for searching disabled persons and strip searches, identify the legal requirements for obtaining confessions and statements, and analyze the relationship between law enforcement actions and the admissibility of evidence in court. Prerequisite: 10-504-902.

CRIMJUST 10504902 Criminal Law 3 Credits/Units

In this course, learners will identify basic concepts of criminal law; analyze facts, circumstances, and situations to determine which crimes against persons and property have been committed; determine which crimes involving drugs, alcohol or other criminal activity have been committed. Prerequisite: 10-504-900.

CRIMJUST 10504903 Professional Communications 3 Credits/Units

In this course, the learner will apply knowledge of the communication process, apply communication techniques, integrate verbal and physical intervention skills, develop strategies to obtain information in a variety of situations, differentiate between interview and interrogation, and analyze information for consideration as corroborative evidence. Prerequisite: 10-504-901.

CRIMJUST 10504904 Juvenile Law 3 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, Cultural Competency, Agency Policy, and Professional Communication. The Department of Justice Phase I written examination will be administered at the conclusion of this course.

CRIMJUST 30504314 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, Juvenile Law I, Interviews, Report Writing, and Physical Evidence. The Department of Justice Phase I written examination will be administered at the conclusion of this course.

CRIMJUST 30504315 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, and First Aid/CPR/AED. This course will also include the WI DOJ 720 Academy Integration Exercises. The Department of Justice Phase I written examination will be administered at the conclusion of this course.

CRIMJUST 30504316 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, and DAAT. The Department of Justice Phase I written examination will be administered at the conclusion of this course.

CRIMJUST 30504317 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. The Department of Justice Phase II written examination will be administered at the conclusion of this course.

CRIMJUST 30504318 Principles of Investigations 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 Phase II topics of the WI Department of Justice 720 Academy curriculum framework: Constitutional Law II, Crimes II, Domestic, and Report Writing. The Department of Justice Phase II written examination will be administered at the conclusion of this course.

CRIMJUST 30504319 Principles of Patrol 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 WI Department of Justice 720 Academy curriculum framework Phase II topics: Professional Communication Skills II, Incident Command Systems and NIMS, Hazardous Materials and WMD, Tactical Response, Crisis Management, and Tactical Emergency Casualty Care. The Department of Justice Phase II written examination will be administered at the conclusion of this course.

CRIMJUST 30504320 Principles of Tactics 3 Credits/Units

Through classroom lecture and on-campus lab students will learn and apply skills addressed in the following Phase II topics from the Department of Justice 720 Academy curriculum frameworks: DAAT and Firearms II. The Department of Justice Phase II written examination will be administered at the conclusion of this course.

CRIMJUST 30504350 Basic Jail Officer Certification 4 Credits/Units

Jail Officer Certification Academy provides the curriculum required for jail officer certification required by the Wisconsin Law Enforcement Standards Board. This course focuses on the philosophical and tactical principles of working as a correctional officer in Wisconsin. It includes a skills-assessment examination prior to completion to verify student competence. Topics covered include state law and administration code provisions governing county jail operations, the basic constitutional rights of prisoners, as established by Federal Courts, and basic guidelines regarding effective correctional practices and procedures. Upon the successful completion of the program, a student will be eligible for certification with the Wisconsin Department of Justice, Law Enforcement Training and Standards Board as a jail officer.

Students seeking admission to the Jail Officer Certification must be at least 18 years of age; possess a high school diploma or equivalent; complete the Wisconsin Department of Justice Application for Enrollment - Jail Officer Training (DJ-LE-327); possess a valid Wisconsin Driver's License; complete a criminal history records check; and complete a satisfactory oral interview. Students accepted into the Jail Officer Certification Course must undergo a physical assessment by a Wisconsin licensed physician.

Contact the Criminal Justice Department in the School of Human and Protective Services at (608) 246-5297 for specific application materials.

Enrollment is regulated by the Wisconsin Department of Justice.

CUL ARTS 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.

CUL ARTS 10316104 Intro To Gourmet Food Prep 3 Credits/Units
Provides students with an introduction to classical and ethnic cooking techniques common to full-service restaurants. Students will have an opportunity to apply and develop skills in the MATC Gourmet Dining Room, a simulated restaurant environment.

CUL ARTS 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.

CUL ARTS 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.

CUL ARTS 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.

CUL ARTS 10316112 Cuisines of the World 4 Credits/Units
Students will explore foods from North America and other prominent regions of the world. Gives students the opportunity to further practice and reinforce cooking techniques and knife skills needed to produce stocks and sauces, starches, meats, and other food items. Protein fabrication and heat transfer techniques are also covered.

CUL ARTS 10316115 Culinary Baking Lab 2 Credits/Units
A chef who develops a basic understanding of the baking process will be better able to manage any kitchen situation, including the pastry department. Mastery is not the goal of this course, but rather to 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. Prerequisites: Culinary Baking Fundamentals, 10-316-108 or concurrent enrollment.

CUL ARTS 10316121 Professional Cooking 2 4 Credits/Units
Further continuation of 316-119 lab with emphasis placed on the demands of running a kitchen and developing quality products and sticking to details. Students will elevate their skills; heat transfer, sanitation, critical thinking, team work, and sauce production. The last eight weeks of the class are devoted to fish & shellfish cookery. The final segment is interpreting menus from the students.

CUL ARTS 10316130 Gourmet Foods 4 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.

CUL ARTS 10316164 Retail Butcher Shop Operation and Sales 4 Credits/Units
 Actively participate in the management, serving, and operations of Madison College's retail butcher shop. Sell cuts of meat to the community over the counter. Practice all aspects of meat production, inventory turns, and customer service skills. This is a non-compensated learning experience.

CUL ARTS 10316194 Culinary Internship 2 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.

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 31508306 Dental Assistant Clinical 3 Credits/Units
 Students apply skills developed in Dental and General Anatomy, Dental Health Safety, Dental Chairside, Dental Materials, Dental Radiography and Professionalism in a clinical setting with patients. Emphasizes integration of core abilities and basic occupational skills. Prerequisites: completion of, or concurrent enrollment in, 10-508-101, 31-508-304, 31-508-302, 10-508-113, 31-508-305 and 31-508-307.

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.

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 medical/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. Prerequisites: 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 instructor, 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.

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 disease 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. They also learn to take alginate impressions on manikins and clean removable appliances. This course is aligned to serve accepted students of Dental Hygiene and Dental Assistant programs.		
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 course 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 10412112	Mobile Hydraulics	3 Credits/Units

Prepares the student with the knowledge and skills needed to adjust, diagnose, service and repair mobile hydraulic systems found on trucks and construction equipment.

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 Inspections 4 Credits/Units
This course will provide the opportunity to perform preventive maintenance inspections and conduct minor repairs on heavy-duty trucks and equipment. An overview of the Federal Motor Carrier Safety Regulations as they relate to the inspection, repair and maintenance of commercial motor vehicles will also be included.

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 10412140 Diesel Shop Skill Fundamentals 1 Credits/Units
Includes a discussion of the job requirements, skills needed, career options and employment opportunities in diesel equipment repair and maintenance. Introduces shop procedures, safety practices, tools and using service manuals.

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 10412176 Diesel Fuel Systems 4 Credits/Units
Lectures and labs allow students to diagnose, service, and repair diesel fuel systems found on trucks and agricultural equipment.

DIESEL 10412177 Diesel Engine Diagnostics 2 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 10412178 Diagnostic Strategies 2 Credits/Units
Explores the logical thought process used analyzing and diagnosing system malfunctions and performance problems. Practical hands-on experiences of diagnostic and problem solving techniques will be included. Also included will be evaluating failures, classifying failures, problems and documentation of findings.

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 2 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 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 Equipment Technology Program 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.

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 20810232 International Arts Intensive-Theatre 3 Credits/Units
 Provides a unique immersion in which participants will study the interdisciplinary nature of the arts. Students will travel to an international arts center to explore the connections that exist among the disciplines of music, theater, and visual art. Historical, geographical, and cultural perspectives will be examined to enhance understanding of live performance experiences in both theater and music. Based on site-specific study, students will apply aesthetic values to the description of music and theater styles.

DRAMA 20810235 Stagecraft 1 3 Credits/Units
 Stagecraft 1 is an overview of the backstage elements involved in theatrical production. It provides basic knowledge of scenery, lighting, rigging, sound, props, costumes and stage management. Students have the opportunity to mix classroom with practical experience.

DRAMA 20810236 Stagecraft 2 3 Credits/Units
 Develops the skills introduced in Technical Theater 1 and explores the design aspects of scenery, lighting, sound and costumes for the stage. Students are encouraged to develop interest in theory, design execution and portfolio preparation.

DRAMA 20810238 Cultural Diversity in Contemporary American Theater 3 Credits/Units
 Cultural Diversity in Contemporary American Theater investigates the representation of gender, ageism, sexual identity and racial stereotypes in written and performance forms. The course explores how popular images are created and reinforced by writers, directors, and performers. Students will analyze performance, scripts, and video documentation, as well as developing an original work of theatrical expression.

DRAMA 20810260 Drama Practicum 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 proficiencies of theatre students. There is a minimum of 25 hours of service required for a 1 credit practicum. A minimum of 35 service hours are required for the 2 credit practicum.

DRAMA 20810262 Acting 1 3 Credits/Units
 Acting 1 explores the actor's process in preparing for a role. It covers basic acting principles, including action, objective, obstacles, conflict, beats and being in the moment. It incorporates fundamentals of movement, voice and improvisation essential to the art of acting. Students will examine scripts, do character analysis, maintain actors' journals and perform five graded exercises.

DRAMA 20810263 Acting 2 3 Credits/Units
 Acting 2 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 10307130 ECE: Preschool Capstone 3 Credits/Units
 The capstone is the last course all students take prior to completing the Preschool Credential. The intent of this capstone course is to cover and revisit some important themes from the prior five courses. The student will synthesize the information and demonstrate mastery of the competencies through the completion of a portfolio

EARLYCHL 10307148 ECE: Foundations of ECE 3 Credits/Units

This course introduces you to the early childhood profession. Course competencies include: integrate strategies that support diversity and anti-bias perspectives; investigate the history of early childhood education; 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 education models.

EARLYCHL 10307151 ECE: Infant & Toddler Development 3 Credits/Units

In this course you will study infant and toddler development as it applies to an early childhood education setting. Course competencies include: analyze development of infants and toddlers (conception to three years); correlate prenatal conditions with development; summarize child development theories; analyze the role of heredity and the environment; examine research-based models; examine culturally and developmentally appropriate environments for infants and toddlers.

EARLYCHL 10307161 Infants/Toddlers-Grp Care 3 Credits/Units

EARLYCHL 10307166 ECE: Curriculum Planning 3 Credits/Units

This course examines the components of curriculum planning in early childhood education. Course competencies include: examine the critical role of play; establish a developmentally appropriate environment; examine care giving routines as curriculum; develop activity plans and unit plans that promote child development and learning; analyze early childhood curriculum models. Corequisite: 10-307-174.

EARLYCHL 10307177 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 10307174 ECE: Practicum 1 3 Credits/Units

In this practicum course you will learn about and apply the course competencies in an actual childcare setting. The first of four training experiences develops skill in interacting with children and staff. MATC faculty help students through periodic observation and conferences. In addition, there is a weekly discussion which focuses on what students are observing and learning in their practicum sites and on developing skills as team members. Students taking Practicum 1 must also be enrolled in at least one other Early Childhood Education course. The preferred course would be Health, Safety, and Nutrition.

EARLYCHL 10307178 ECE: Art, Music & Lang Arts 3 Credits/Units

This course will focus on beginning level curriculum development in the specific content areas of art, music and language arts. Course competencies include: examine the critical role of play; establish a developmentally appropriate environment; develop activity plans that promote child development and learning; analyze care giving routines as curriculum; create developmentally appropriate language; literature and literacy activities; create developmentally appropriate art, music, and movement activities. Recommended prerequisite: 10-307-166.

EARLYCHL 10307179 ECE: Child Development 3 Credits/Units

This course examines child development within the context of the early childhood education setting. Course competencies include: analyze social, cultural and economic influences on child development; summarize child development theories; analyze development of children age three through age eight; summarize the methods and designs of child development research; analyze the role of heredity and the environment. Recommended prerequisite: 10-307-151.

EARLYCHL 10307187 ECE: Children w diff Abilities 3 Credits/Units

This course focuses on the child with differing abilities in an early childhood education setting. Course competencies include: provide inclusive programs for young children; apply legal and ethical requirements including, but not limited to, ADA and IDEA; differentiate between typical and exceptional development; analyze the differing abilities of children with physical, cognitive, health/medical, communication, and/or behavioral/emotional disorders; work collaboratively with community and professional resources; utilize an individual educational plan (IEP/IFSP) for children with developmental differences; adapt curriculum to meet the needs of children with developmental differences; cultivate partnerships with families who have children with developmental differences. Recommended prerequisites: 10-307-151 and 10-307-179.

EARLYCHL 10307188 ECE: Guiding Child Behavior 3 Credits/Units

This course examines positive strategies to guide children's behavior in the early childhood education setting. Course competencies include: summarize early childhood guidance principles; analyze factors that affect the behavior of children; practice positive guidance strategies; develop guidance strategies to meet individual needs; create a guidance philosophy. Recommended prerequisite: 10-307-151.

EARLYCHL 10307192 ECE: Practicum 2 3 Credits/Units

In this second training experience, students apply the knowledge and skills acquired in Practicum 1 and related class work under the supervision of MATC faculty and teacher-caregivers at centers. Planning and implementing activities are included and conferences are scheduled to help students. Required concurrent enrollment in 10-307-178 or instructor consent and recommended concurrent enrollment in 10-307-188.

EARLYCHL 10307194 **ECE: Math Science & Soc St** **3 Credits/Units**
 This course will focus on beginning level curriculum development in the specific content areas of math, science and social studies. Course competencies include: examine the critical role of play; establish a developmentally appropriate environment; develop activity plans that promote child development and learning; create developmentally appropriate math, science and social studies activities. Recommended prerequisite: 10-307-166. Required prerequisite: 10-307-178 or instructor consent.

EARLYCHL 10307195 **ECE: Family & Community Rel** **3 Credits/Units**
 In this course you will examine the role of relationships with family and community in early childhood education. Course competencies include: analyze contemporary family patterns; trends and relationships; utilize effective communication strategies; establish ongoing relationships with families; advocate for children and families; work collaboratively with community resources. Recommended prerequisite: 10-307-188.

EARLYCHL 10307197 **ECE: Practicum 3** **3 Credits/Units**
 In this third training experience, students continue to develop teacher-caregiver skills. One week of head teaching is required. Prerequisites: 10-307-174; 10-307-192; 10-307-167; 10-307-179; 10-307-188 or instructor consent.

EARLYCHL 10307198 **ECE: Admin an ECE Program** **3 Credits/Units**
 This course focuses on the administration of an early childhood education program. Course competencies include: analyze the components of an ECE facility; design an ECE program; analyze the aspects of personnel supervision; outline financial components of an ECE program; apply laws and regulations related to an ECE facility; advocate for the early childhood profession. Recommended prerequisite: 10-307-192.

EARLYCHL 10307199 **ECE: Practicum 4** **3 Credits/Units**
 This final training experience includes two weeks of head teaching; stresses staff-parent communication and may be designed to coordinate with student's choices of career specializations. Prerequisites: 10-307-174; 10-307-192 and 10-307-197.

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 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.

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 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.

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 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.

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 introduces basic economic principles to help you better understand the world in which you live. In addition to learning how the U.S. economy works and how it sometimes fails, you will develop a deeper understanding of issues such as why college tuition costs are rising; how wages for workers in your chosen field are determined; whether the minimum wage should be increased; why some people argue for, and others against, an expansion of international trade; how to maximize profits if you someday start your own business; and how federal government and banking system policies affect your life and the overall economy.

ECON 20809211**Macro Economics****3 Credits/Units**

This course provides an introduction to basic economic principles with applications to current economic problems affecting the overall performance of a nation's economy. The course begins with an analysis of the role of markets and prices in an economy. Topics include the causes and consequences of unemployment, inflation, and economic growth; the role of money and banking in the economy; the role of government taxing and spending policies to correct market failure and stabilize the economy; the implications of budget deficits and the national debt; and the implications of an increasingly global economy. This course is designed to meet the need for college transfer credit.

ECON 20809212**Micro Economics****3 Credits/Units**

This course provides an introduction to basic economic principles with applications to current economic problems affecting individuals and businesses. The course begins with an in-depth analysis of the role of markets and prices in an economy, with emphasis on when markets work well and when they fail to yield the best outcome for the society. Topics include how individuals choose to best use their limited resources; the causes and consequences of poverty and the distribution of income and wealth; the behavior of businesses in setting prices and production levels; problems of monopoly power; wage determination in labor markets; and the economics of environmental challenges. This course is designed to meet the need for college transfer credit.

ECON 20809214**Intro International Econ****3 Credits/Units**

Introduction to International Economics 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 prepares the student to analyze the interaction between economic activity and the earth's physical environment. Emphasis is placed on the impacts surrounding natural resource markets, including energy and minerals, agriculture, forests, fisheries and tourism. Economic concepts include social welfare analysis, externality costs, market failure, the time value of money, economic valuation of non-market goods, definitions of economic efficiency, risk analysis and definitions of "growth". Environmental impacts may include toxicity to ecosystems, species extinction, soil erosion, fresh water quality and availability, degradation of the marine environment, air pollution, ozone depletion and global warming. Political issues include, but are not limited to the trading of pollution credits, the debate over nuclear power, genetic engineering issues, land use planning, environmental racism, international dynamics and inter-generational equity.

ECON 20809269	Energy And Society	3 Credits/Units
<p>The American experience is better understood within the context of the history of energy consumption and production. Our nation's future is inextricably connected to our resolution of the challenges we face with respect to energy. Analyses and solutions require an interdisciplinary approach. The course "Energy and Society" considers the technical, economic, political, environmental, ethical and social contexts of the topic of energy.</p>		
ECON 99809214	International Economics	3 Credits/Units
<p>Study Abroad</p>		
EDSVC 10522102	EDU: Techniques for Reading and Language Arts	3 Credits/Units
<p>This course will focus on best practices in working with children in their development of reading and language arts as well as the roles of the teacher and the instructional assistant. The student will gain an understanding of how to work with all children and reinforce instruction individually and in groups through questioning, listening and guiding, and scaffolding techniques. Current classroom materials plus enrichment and support activities will be examined and created.</p>		
EDSVC 10522103	IA: Introduction to Educational Practices	3 Credits/Units
<p>This course will include the study of historical, philosophical and social foundations of education; issues and trends including diversity affecting our schools of today including elementary, middle level and secondary educational settings. An overview of the governmental basis of education; fundamentals of teaching methodologies, learning styles, questioning techniques and basic assessment practices will be addressed.</p>		
EDSVC 10522106	IA: Child and Adolescent Development	3 Credits/Units
<p>Provides an overview of physical, motor, perceptual, cognitive, social/emotional and growth and development birth through adolescence. Analyzes social, parental, cultural, brain, and economic influences on development.</p>		
EDSVC 10522107	IA: Overview of Special Education	3 Credits/Units
<p>This course provides an overview of the special education law. Special education classifications and associated causes and characteristics will be explored as well as state and federal qualification criteria will be examined. Societal responses to students with disabilities as well as the impact of a student with special needs on family dynamics will also be covered in this course.</p>		
EDSVC 10522111	IA: Guiding and Managing Behavior	3 Credits/Units
<p>Recent trends in education support a shifting paradigm from reactive discipline to proactive, preventive classroom management. This course will provide the learner with research-based concepts and strategies which can be used to prevent behavior problems from occurring in the classroom and respond to misbehavior. Practical application of strategies to organizing instruction, creating a positive classroom climate, building positive student relationships, implementing sound instructional methods, enhancing motivation and responding effectively to inappropriate classroom behavior will be emphasized. Effective student communication and problem solving will be practiced in class with a focus on developing skills, which will assist in empowering children to take an active role in self control and classroom management.</p>		
EDSVC 10522120	EDU: Techniques for Science	3 Credits/Units
<p>The course is an introduction to the content and processes of science. Strategies of teaching science will be studied and practiced and will prepare you in assisting the classroom teacher in group and individual activities in science. Current science processes, strategies, procedures, assessment options and factors affecting science learning will be explored.</p>		
ELEC 50413530	Tech Electrical 1	4 Credits/Units
<p>This course description is unavailable at this time. Please contact the center offering the course for more information.</p>		
ELEC 50413531	Tech Electrical 2	4 Credits/Units
<p>This course description is unavailable at this time. Please contact the center offering the course for more information.</p>		
ELEC 50413532	Tech Electrical 3	2 Credits/Units
<p>This course description is unavailable at this time. Please contact the center offering the course for more information.</p>		
ELEC 50413533	Tech Electrical 4	2 Credits/Units
<p>This course description is unavailable at this time. Please contact the center offering the course for more information.</p>		
ELEC 50413534	Tech Electrical 5	2 Credits/Units
<p>This course description is unavailable at this time. Please contact the center offering the course for more information.</p>		
ELEC 50413535	Tech Electrical 6	2 Credits/Units
<p>This course description is unavailable at this time. Please contact the center offering the course for more information.</p>		
ELEC 50413542	Tech EI Ind Sem 1	2 Credits/Units
<p>This course description is unavailable at this time. Please contact the center offering the course for more information.</p>		

ELEC 50413543	Tech EI Ind Sem 2	2 Credits/Units
This course description is unavailable at this time. Please contact the center offering the course for more information.		
ELEC 50413544	Tech EI Ind Sem 3	2 Credits/Units
This course description is unavailable at this time. Please contact the center offering the course for more information.		
ELEC 50413545	Tech EI Ind Sem 4	2 Credits/Units
This course description is unavailable at this time. Please contact the center offering the course for more information.		
ELEC 50413546	Tech EI Ind Sem 5	2 Credits/Units
This course description is unavailable at this time. Please contact the center offering the course for more information.		
ELEC 50413547	Tech EI Ind Sem 6	2 Credits/Units
This course description is unavailable at this time. Please contact the center offering the course for more information.		
ELEC 50413548	Tech EI Ind Sem 7	2 Credits/Units
This course description is unavailable at this time. Please contact the center offering the course for more information.		
ELEC 50413549	Tech EI Ind Sem 8	2 Credits/Units
This course description is unavailable at this time. Please contact the center offering the course for more information.		
ELEC 50413552	Tech EI Ind Sem 9	2 Credits/Units
This course description is unavailable at this time. Please contact the center offering the course for more information.		
ELEC 50413553	Tech EI Ind Sem 10	2 Credits/Units
This course description is unavailable at this time. Please contact the center offering the course for more information.		
ELEC 50413570	Tech Electrical 7	2 Credits/Units
ELEC 50413571	Tech Electrical 8	2 Credits/Units
ELEC 50413580	Trade Electrical Semester 1	2 Credits/Units
This course description is unavailable at this time. Please contact the center offering the course for more information.		
ELEC 50413581	Trade Electrical Semester 2	2 Credits/Units
This course description is unavailable at this time. Please contact the center offering the course for more information.		
ELEC 50413582	Trade Electrical Semester 3	2 Credits/Units
This course description is unavailable at this time. Please contact the center offering the course for more information.		
ELEC 50413583	Trade Electrical Semester 4	2 Credits/Units
This course description is unavailable at this time. Please contact the center offering the course for more information.		
ELEC 50413584	Trade Electrical Semester 5	2 Credits/Units
This course description is unavailable at this time. Please contact the center offering the course for more information.		
ELEC 50413585	Trade Electrical Semester 6	2 Credits/Units
This course description is unavailable at this time. Please contact the center offering the course for more information.		
ELEC 50413586	Trade Electrical Semester 7	2 Credits/Units
This course description is unavailable at this time. Please contact the center offering the course for more information.		
ELEC 50413587	Trade Electrical Semester 8	2 Credits/Units
This course description is unavailable at this time. Please contact the center offering the course for more information.		
ELEC 50413588	Trade Electrical Semester 9	2 Credits/Units
This course description is unavailable at this time. Please contact the center offering the course for more information.		
ELEC 50413589	Trade Electrical Semester 10	2 Credits/Units
This course description is unavailable at this time. Please contact the center offering the course for more information.		
ELECENG 10662112	AC/DC Electronics 3	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 10662124 Advanced Circuit Analysis 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.

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.

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 Advanced Circuit Techniques 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
 Programmed devices are covered in this course with a hardware emphasis. Algorithms, event sequencing, flow diagrams, visual programming and Embedded C programming are covered as well as compiling, downloading embedded code into target hardware and basic troubleshooting of simple embedded programs in C. This course also covers variables, memory management, conditionals, mathematical operations, functions and loops. There is considerable emphasis on troubleshooting within this course.

ELECT 10605131 Technical Calculus 1 4 Credits/Units
 This introductory course studies analytic geometry, binomial series, differentiation of algebraic, exponential, log and trig functions and integration of algebraic functions. An emphasis is placed on the application of each of these topics to problems in science and engineering.

ELECT 10605132 Technical Calculus 2 4 Credits/Units
 This course is a continuation of Technical Calculus 1. Topics include integration techniques, partial derivatives, graphing conics, double integrals, polar coordinates, and first and second order differential equations. Emphasis is placed on applications to problems in science and engineering.

ELECT 10605136 Biomedical Electronics 3 Credits/Units
 Course covers the biological and medical applications of electronics. Topics include biological systems and signals (ECG, EEG, etc.); sensor and transducer circuits including: thermistors, thermocouples, and strain gauges. Other topics include instrumentation amplifiers and circuits; noise reduction; passive and active filtering; medical imaging systems; and medical telemetry systems. Prerequisite: 10-605-112 or equivalent.

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 10605145 Programmable Logic Controls 3 Credits/Units
 Studies basic operation, interfacing and programming of PLCs and Human Machine Interfaces (HMI). Concepts, construction and troubleshooting of ladder logic and proprietary programming systems are covered.

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 10605160 Virtual Reality 3 Credits/Units
 Course covers the concept of virtual reality (VR); its history and development; human senses; hardware and important concepts and methods of software design and development. Course also covers sensors and actuators (visual, audio, tactile); displays including screens, goggles, headsets, etc.; telepresence and telerobotic systems; and applications in a variety of fields including entertainment, design, business, medical, telerobotics, remote control, education and others.

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 studied 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).		
ELECT 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.).		
ELECT 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.		
ELECT 20605252	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.).		
ELECT 20605270	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.		
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 10531150	Emergency Response for Protective Services-Criminal Justice/Law Enforcement Program	2 Credits/Units
Covers the immediate and temporary care given in case of accident, illness or emergency childbirth. This course qualifies students for the standard or advanced AHA CPR/AED certification.		
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.		
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.		
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.

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.

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.

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.

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.

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.

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.

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.

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.

EMS 10531925 **Paramedic Clinical 1** **1 Credits/Units**
 This course provides the student with the opportunity to enhance his or her 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. Students will also participate in multidisciplinary high-fidelity human patient simulator experiences as a part of this course. Successful completion of this course requires the student to meet all clinical competency requirements at the paramedic level as defined by WI DHS EMS.

EMS 10531926 **Paramedic Clinical 2** **1 Credits/Units**
 This course provides the student with the opportunity to enhance his or her 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. Students will also participate in multidisciplinary high-fidelity human patient simulator experiences as a part of this course. Successful completion of this course requires the student to meet all clinical competency requirements at the paramedic level as defined by WI DHS EMS.

EMS 10531927	Paramedic Clinical 3	1 Credits/Units
This course provides the student with the opportunity to enhance his or her 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. Students will also participate in multidisciplinary high-fidelity human patient simulator experiences as a part of this course. Successful completion of this course requires the student to meet all clinical competency requirements at the paramedic level as defined by WI DHS EMS.		
EMS 10531928	Paramedic Field Internship	3 Credits/Units
This course provides the student with the opportunity to enhance his or her 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 the student to meet all clinical and field competency requirements at the paramedic level as defined by WI DHS EMS.		
EMS 10531929	Paramedic Clinical 4	1 Credits/Units
This course provides the student with the opportunity to enhance his or her learning through the practice of paramedicine in field and health care environment experiences with actual patients under the supervision of instructors or approved preceptors. Students may also have the opportunity to participate in formal high-fidelity human patient simulator experiences as a part of this course.		
EMS 30531360	Advanced Emergency Medical Technician	4 Credits/Units
Students learn advanced patient assessment, communication skills and beginning advanced life support interventions. Prepares students to obtain licensure as an EMT Intermediate Technician in the State of Wisconsin. Prerequisite: valid EMT–Basic License.		
ENERCONS 10481110	Energy Management	3 Credits/Units
Students will perform critical examinations of energy consuming facilities both domestic and commercial for the purpose of identifying energy conservation opportunities. In addition, the student will identify various energy conservation techniques as well as equipment which can be installed to further conserve energy.		
ENGLISH 10801195	Written Communication	3 Credits/Units
Develops writing skills which includes prewriting, drafting, revising, and editing. A variety of writing assignments is designed to help the learner analyze audience and purpose, research and organize ideas, and format and design documents based on subject matter and content. Also develops critical reading and thinking skills through the analysis of a variety of written documents.		
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 will use advanced research skills to write papers from across the curriculum. Research papers will be informative and persuasive in nature and will be based on topics from academic disciplines (social sciences, literature and the humanities, or science and mathematics). Students will conduct research using primary and secondary library resources, surveys and questionnaires, observation, and interviews and will use the MLA format and one other format (APA, Chicago) to document their sources. Students will be asked to prepare 25-35 pages of polished writing.		
ENGLISH 20801204	Introduction to Literature	3 Credits/Units
Recommended as a first course in literary analysis, this course introduces students to the major genres of literature and addresses issues related to writing about literature and/or other texts. Individual sections may focus on a particular literary theme or emphasis.		
ENGLISH 20801207	World Indigenous Literatures	3 Credits/Units
World Indigenous Literatures studies indigenous issues in an international context by comparing literature and film produced by Native American and other indigenous writers and filmmakers in the U.S., Canada, New Zealand, Australia, and the Indigenous Pacific. The selection of authors represents indigenous people who have remained in their homelands as minority nations within First World countries.		
ENGLISH 20801211	Gay & Lesbian Literature	3 Credits/Units

This course examines work by representative authors in American literature written by and about lesbian and gay people from the 19th century to the present, including short stories, novels, drama, poetry and film. Works will be analyzed in regard to both specific and universal messages they have to offer, for non-gay and gay readers alike.

ENGLISH 20801212 Ethnic Literature 3 Credits/Units

Special Topics in Ethnic Literature explores questions of identity within various cultural contexts. Writers represent one or more ethnic groups working in one or more genres of literature with emphasis on developments in voice, genre, and style over chronological and geographical periods. Individual sections may vary in particular emphasis.

ENGLISH 20801213 Native American Literature 3 Credits/Units

Native American Literature introduces students to 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 20801217 American Literature 1 3 Credits/Units

Examines major authors and works from the early 16th to the late 19th century in American prose, drama, and poetry.

ENGLISH 20801218 American Literature 2 3 Credits/Units

Examines major authors and works from the late 19th century to the present in American prose, drama, and poetry.

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 diverse forms of popular culture as artistic and cultural representation. Each offering of literature in popular culture will be organized in the same way: a) Four units that deal with four different aspects of the course topic. b) Each unit will ask students to read a selection of each of the following: critical works—usually an article or articles or excerpts from a book—that offer definition of the genre, provided historical context, establish a relation between the thematic content and culture, and fosters discussion and critical analysis. c) Each unit will have at least two primary "texts", including, but not limited to books, journal articles, films, sound recordings, graphic novels, electronic environments, blogs, & multimedia presentations. d) Written assignments will include, but will not be limited to: informal discussion board postings and responses to other postings, summaries and definitions, formal response papers and essays, one sustained project that brings together the themes and elements discussed in the class. e) Other assignments may include reading quizzes.

ENGLISH 20801222 U.S. Latino Literature 3 Credits/Units

This course explores U.S. Latino texts, including poetry, fiction, drama, and autobiography by Mexican-American, Puerto-Rican American, Cuban-American and Dominican-American writers. Writers from other Latino groups may also be included. Class discussion examines the rich and varied literary traditions of Latino communities in the United States. Students analyze issues of theme, genre, language, cultural identity and social and political experiences, as reflected in the texts chosen for the course. Classes are conducted in English. All required texts were originally written in English or are offered in English translation.

ENGLISH 20801223 Peace, Conflict, and Literature: The Arts of the Contact Zone 3 Credits/Units

Mary Louise Pratt defines Contact Zones as "social spaces where cultures meet, clash, and grapple with each other, often in contexts of highly asymmetrical relations of power." She goes on to describe the Arts of the Contact Zone as "exercises in storytelling ... collaborative work ... ways for people to engage suppressed aspects of history ... ground rules for communication across lines of difference and hierarchy." This course will introduce students to the arts of the contact zone by introducing them to 1) representations of peace and conflict in literature and film; 2) the theory of and strategies for conflict resolution and peace building. Through reading, writing, observations, presentations, discussion, and field and project work, students in this course will critically explore representations of peace and conflict at the personal, local, civil, and international levels. Students will explore across genres, media, time periods, cultures, and disciplines. Throughout this exploration, students will examine literature and film in order to 1) identify and describe sources of conflict; 2) analyze and explain how conflict is communicated, prevented, and/or resolved; and 3) discover how great writers and thinkers as well as ordinary citizens can work for peace.

ENGLISH 20801224 **Special Topics in International Literature** **3 Credits/Units**
 Special Topics in International Literature provides the opportunity for students to study, in English, the great works of literature from other countries and other languages. The course focuses on writers representative of a particular language and/or culture working in one or more genres of literature, with emphasis on developments in content and style. Individual sections may vary in particular emphasis.

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**
 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 Lit** **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**
 Classical Mythology 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 20801242 **Creative Writing/Drama** **3 Credits/Units**
 Students write monologue and dialogue, develop characters and build scripted scenes and short dramas for stage, video, cinema, or docudrama. Reading assignments allow students to become familiar with principles of dramatic practice. Class meetings follow a workshop format. Course may be paired with 810-237, Creating Original Theatre to create a six-credit writer-performer workshop.

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, poets, 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 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 subjects and writers of literature. Students read works from a number of genres and eras, studying ways female writers have contributed to, challenged and enlarged the literary tradition. Introduces readers to literary works by and about women and teaches analytical skills, especially feminist literary criticisms. The works are selected to represent varied perspectives in race, class and sexual preference.

EVTMGT 10109102 Fundamentals Of Meeting Mgmt 3 Credits/Units

Students explore the core issues of meeting planning from the fundamentals to the new trends shaping the meetings industry. Development of meeting timelines, checklists and request for proposal are introduced. Further focus includes the process meeting planners must use in site selections, the value of meeting objectives and format, and attendee expectations.

EVTMGT 10109104 Meeting Design 3 Credits/Units

Designing meeting experiences that engage participants and deliver return on investment is critical for meeting professionals. Students explore adult learning styles and theories as well as develop tools and techniques to ensure the meetings success and a positive return on investment is delivered. This course takes an in-depth look at identifying the stakeholder objectives and learner outcomes, designing effective meetings and events, and measuring return on investment.

EVTMGT 10109108 Mtgs Industry Budget/Finance 2 Credits/Units

Establishing a realistic and sound budget is vital to creation of successful meetings. This course examines the steps in developing a meeting budget. Students learn techniques for projecting and managing budgets including per person methodology and break-even analysis. Emphasis is placed on situations oriented to the meeting industry.

EVTMGT 10109109 Special Event Management 3 Credits/Units

Demonstrates professional practices used to create, market, plan and implement special events. Emphasis is on applying creativity to develop events with unique purposes and presentations combining elements such as site selection, décor, lighting, sound, and entertainment as well as food and beverage to reflect the theme of the event.

EVTMGT 10109110 Meeting Coordination 3 Credits/Units

Provides a solid understanding of the numerous tasks and details involved in developing and coordinating a meeting and/or event. Students explore meeting room design, commonly used audio-visual equipment, the use of speakers, and how effective management of food and beverage impact successful meeting and event planning.

EVTMGT 10109111 Registration/Housing Logistics 2 Credits/Units

Registration is the first impression that attendees have of your meeting. Careful planning in designing a registration process is critical to setting attendees expectations, perceptions and the tone of the meeting. Meeting participants want and need comfortable and convenient accommodations, to their exact requirements. Creating rooming lists, coordinating the housing logistics, and managing sleeping room blocks to reduce or eliminate attrition are critical success factors for the planner and the meeting. This course enables students to identify and develop tools that allow attendees a seamless meeting experience.

EVTMGT 10109112 Exhibition Management 3 Credits/Units

Provides the student with an understanding of the growing role of exhibitions and trade shows as a source of revenue for the organizer as well as an opportunity for buyers and sellers to interact face-to-face in an educational environment. Building an exhibition from the start of the planning process through the close of the show is presented. Students examine key elements in designing a show floor; careers within exhibition management, factors needed to take into account when selecting a site for an exhibition, identify contractors necessary for producing the show; and learn how to effectively interact and communicate with exhibitors throughout the process. As part of this course, a job-ready assessment will be given.

EVTMGT 10109113 Risk Management, Negotiations, and Legal Issues 3 Credits/Units

Includes crisis planning and risk management, the art and science of negotiations, and contract and legal issues in the meetings industry. Students learn how to identify issues that are negotiable, the steps in the negotiation process and commonly used negotiation techniques. The class also focuses on basic contract provisions and key clauses of a facility contract as well as the unique elements and differences of hotel and convention center contracts. Includes discussion of legal principles and precedents as they apply to the meetings industry.

EVTMGT 10109114 Meeting/Event Mgmt Internship 2 Credits/Units

Course provides both theoretical and hands-on experience planning, setting up and managing a meeting or event. Emphasis is on developing and implementing proper procedures to ensure professional results. The student is required to use their knowledge of finance, decision making, problem solving, organization and communication. Prerequisite: Third semester program student or consent of instructor.

EVTMGT 10109116 Fundamentals of Green Meetings and Events 2 Credits/Units

This course provides students with a solid foundation of what is a green meeting, commonly used terminology, and how to execute a socially responsible and environmentally responsible meeting or event. Through a green lens, students will explore core strategies and principles in planning a green meeting. Further focus includes green tools and resources available to plan a green meeting.

EVTMGT 10109117 Partnership Development 3 Credits/Units

Students learn how to analyze a meeting to identify sponsorship and fundraising opportunities. These partnerships build support for a meeting, increase marketing effectiveness, and increase meeting profitability.

EVTMGT 10109119 Event Professional Best Practices 3 Credits/Units

This course focuses on the core knowledge and skills that are crucial in the meetings and events industry. We will examine the factors involved with job success, including professional etiquette, ethics, communication and listening skills. Learn the foundation of customer service by implementing industry standards and expectations. Students will create a professional portfolio, as well as learn about proactive job search techniques, professional networking and interview skills.

FARMBUS 10090381 Agriculture Business Management 3 Credits/Units

A farm business is a complex set of enterprises that all need to be managed effectively to be successful and sustainable. Students will learn to develop a business plan, set short and long term goals, identification and implementation alternatives for reaching goals, and strategies and tools to monitor success. The student will learn organize and maintain farm business records as well as how to interpret and analyze the records to make sound farm management decisions. All competencies will be assessed by the using the student's own farm or agriculture business or with simulations established by the instructor.

FARMBUS 10090382 Principles of Sustainable Soil and Crop Management 3 Credits/Units

The soil is the foundation on which farming is based. Creating a soil and crop management system that enhances the soil health and quality is one of the most fundamental practices a farmer can do. This class will provide a basic understanding of the nature of soil, and the impacts our management has on the health and productivity of the soil. Students will gain an understanding of soil fertility and learn how to management soil nutrients to meet crop needs and will evaluate the economic impacts of various soil and crop management systems.

FARMBUS 10090385 Principles of Animal Science and Management 3 Credits/Units

This course provides animal science fundamentals including animal health, animal environments, anatomy and physiology, genetics and reproduction, animal feedstuffs, and animal-related safety. This course also emphasizes the skills, techniques and concepts of sound feeding management. Students will determine animal feed needs, evaluate nutritional value and economics of feed types and methods. Participants will experience animal concepts through the completion of hands-on activities.

FARMBUS 10090386 Agriculture Finance and Economics 3 Credits/Units

Agriculture is a vital industry in Wisconsin's Economy. Students will explore the diversity and impacts agriculture plays on the economy. Students will learn major aspects of agribusiness financial management through extensive problem solving, financial analysis and financial planning. Students will describe and calculate sweet 16 ratios, business cash flows, inventory controls, budgeting and borrowing considerations of various types of agribusinesses. Students will also explore agricultural economic dimensions and impacts, economic principles, calculation of economic returns, and evaluation of economic alternatives. Students will use these tools for their own operation or on simulations developed by the instructor.

FARMBUS 31090310 Sustainable Agriculture: Meat Animal Production 3 Credits/Units

Introduces farm practices through on-farm sessions. Livestock terminology, selection, reproduction, nutrition, management, marketing, and species characteristics of meat animals. Investigate basic animal husbandry: feeds, rations, rotational grazing, pasture management.

FARMBUS 31090389 Farm to Table Capstone 2 Credits/Units

Customized, project-based course for farm-to-table students. Apply skills learned in the program at participating facilities such as a farm, meat processor, slaughtering facility, or culinary business, on or off campus.

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 10114120	Financial Planning	3 Credits/Units
This is a comprehensive course incorporating the review of investment statements, tax documents, insurance policies and other inputs to a well-rounded financial program. Cash flow analysis and Goal Based Planning are compared through specific examples and projects that an Investment Advisor/Financial Planner would deal with on a regular basis. An understanding of personal finance and investments are recommended. This course assumes the student understands the time value of money.		
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. Completion of the EMT Basic Course also will provide the student with a diploma in Fire Service Certification.		
FIRET 10503141	Firefighter 2/Hazardous Materials Operations	1 Credits/Units
This course meets the NFPA requirements for firefighters. Provides the first responders with the awareness and knowledge to identify hazardous materials and to safely respond to hazardous materials (hazmat) emergencies.		
FIRET 10503142	Fire Fighting Principles	4 Credits/Units
Describes basic fire behavior, and techniques used to control structural and related fire emergencies, and life safety practices. Students perform all practical evolutions necessary to control and extinguish fires and otherwise meet all requirements for Firefighter 1 certification with the State of Wisconsin.		
FIRET 10503143	Building Construction	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 evaluation and control procedures for fire stations, training sites, emergency vehicles and emergency situations involving fire, EMS, hazardous materials and technical rescue. Upon completion of this course, students should be able to establish and manage a safety program in an emergency service organization.

FIRET 10503148 Principles of Fire & Emergency Service Administration 4 Credits/Units

This course introduces the student to the organization and management of a fire department and the relationship of government agencies to the fire service. Emphasis on fire service leadership from the perspective of the company officer.

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. Prerequisites: 10-503-191, 10-503-143, 10-503-144, 10-503-100, 10-503-154, 10-503-151, 10-503-148, 10-503-195.

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 Emergency Services/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. Prerequisites: 10-503-151, 10-503-152, and 10-503-157

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 & Combustion 3 Credits/Units

This course explores the theories and fundamentals of how and why fires start, spread and are controlled.

FIRET 30503300 Fire Recruit Academy - Fire Service Certification Program 5 Credits/Units

200 hours of fire fighting training prepares students for the State of Wisconsin Firefighter I and Firefighter 2 certification examinations. Completion of the EMT Basic Course also will provide the student with a diploma in Fire Service Certification.

FRENCH 20802221 French 1 - Liberal Arts Transfer 4 Credits/Units

French 1 is for students beginning the study of French. It emphasizes development of basic communicative skills through practice in listening, speaking, reading and writing. Stresses vocabulary and grammar to enhance students' ability to speak and write in French. Study of customs and values provide an increased awareness of francophone cultures. On completion students are able to participate in uncomplicated conversations on everyday topics.

FRENCH 20802222 French 2 - Liberal Arts Transfer 4 Credits/Units

French 2 emphasizes continued development of more complex communicative skills through practice in listening, speaking and writing. Upon completion, students possess the listening, speaking, reading and writing skills necessary to handle simple, everyday survival tasks in francophone cultures. Vocabulary and grammar are studied to enhance students' abilities to speak and write in French.

FRENCH 20802223	French 3 - Liberal Arts Transfer	4 Credits/Units
<p>In French 3 a review of grammar from previous semesters is initiated and vocabulary is broadened. Emphasis is placed on speaking and writing in French in "paragraphs" as a full participant in a conversation. Everyday situations in francophone cultures, including education, family life, leisure activities and travel, will provide students with the opportunity to expand their survival skills in francophone cultures. Readings of cultural and literary significance will provide vehicles for discussion and composition.</p>		
FRENCH 20802224	French 4 - Liberal Arts Transfer	4 Credits/Units
<p>This course is designed for the student who has completed three semesters of college French, or three years of high school French. The review of grammar from 20-802-223, French 3, is completed and vocabulary is broadened. Emphasis is placed on speaking and writing creatively in French on a variety of topics. Everyday situations in francophone cultures, including education, family life, leisure activities and travel, will provide students with the opportunity to expand their survival skills in francophone cultures. Readings of cultural and literary significance will provide vehicles for discussion and composition.</p>		
FSHNMKTG 10104118	Store Operations	3 Credits/Units
<p>Students in this course are responsible for the operation of Olivia's Gifts. Training in all aspects of store operation with special emphasis on selling, merchandising, pricing, loss prevention and visual presentation is stressed. Students are required to attend at least one trade show during the semester to help select merchandise for the store.</p>		
FSHNMKTG 10104120	Adobe Photoshop Fashion Design	3 Credits/Units
<p>This course focuses on the key tools and processes using Adobe Phototshop and other computer software programs that are part of technical specification design packets in the fashion industry. Students will be creating projects in major categories of fashion.</p>		
FSHNMKTG 10104122	Adobe Illustrator for Fashion	3 Credits/Units
<p>This course focuses on the key tools and processes using Adobe Illustrator and other computer software programs that are part of technical specification design packets in the fashion industry. Students will be creating projects in major categories of fashion.</p>		
FSHNMKTG 10104123	Merchandise Plan/Control	3 Credits/Units
<p>Students analyze the buying and merchandising functions in various types of organizations. The principles, procedures and techniques practiced by merchandisers are studied. Students may have the opportunity to interview a buyer, visit a market, participate in a floor move in a local business, compile a resource folder of relevant tools for buyers, and/or complete a computer simulation.</p>		
FSHNMKTG 10104124	Retail Management	3 Credits/Units
<p>Upon successful completion of this course, the student should be able to describe and analyze retail store organization and operation including customer markets, store location and design, human resource management, merchandise planning and control, and retail promotion.</p>		
FSHNMKTG 10104127	Technical Design Specifications for Fashion	3 Credits/Units
<p>Students will create garment sketches using Adobe software with product specifications and fit comments to apparel for a target market. Students will present a technical specifications packet of apparel based on research for a target audience as it is applied to the sketches.</p>		
FSHNMKTG 10104157	Fashion Internship	2 Credits/Units
<p>Internship offers practical work experience to third and fourth semester students in the fashion area. Experiences that cannot be acquired in the classroom environment provide the student with the opportunity to blend theory with practice in an approved work setting, offered in the summer semester.</p>		
FSHNMKTG 10104182	Portfolio Presentation	3 Credits/Units
<p>This course includes an overview of methods to searching for a position in the fashion marketing field. We explore on and off line methods of personal and academic assessment. Mock interviews, including a viewing of your portfolio work, will be video taped. Resume writing and personal correspondence are included in a personalized approach.</p>		
FSHNMKTG 10104183	International Business in Fashion	2 Credits/Units
<p>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.</p>		
FSHNMKTG 10104186	History of Costume	3 Credits/Units
<p>This course is an integration of how social, political, and economic factors relate to fashion trends from the past to the present. Students focus on key elements to help understand consumer behavior.</p>		
FSHNMKTG 10104194	Visual Merchandising	3 Credits/Units
<p>The principles and elements of design are incorporated into a hands-on approach to interior and exterior merchandise presentation. Coordination of the total sales promotion effort is emphasized. Students are required to build many types of displays.</p>		

FSHNMKTG 10104195	Fashion Analysis	2 Credits/Units
Students work with the elements and principles of design as they relate to fashion promotion and products. Forecasting, creativity and a grasp of the influences and sources of design are major components of the course. Computer-aided design is used to enhance the course. Highly recommend concurrent enrollment with either Fashion CAD Lab, 10104198, or Adobe Illustrator for Fashion Design, 10104122.		
FSHNMKTG 10104196	Textiles	2 Credits/Units
Focuses on the technical information regarding fabrics and fibers required by apparel managers and merchandisers, and its application to merchandise buying and sales staff training. Highly Recommended pre-requisites Fashion Analysis 10104195 , Fashion CAD 10104198 or Adobe Illustrator for Fashion Design 10104122 and Apparel Marketing 10104197.		
FSHNMKTG 10104197	Apparel Marketing	3 Credits/Units
Students study the types of business enterprises, activities, operations, interrelationships and practices in the fashion industry. Careers in each of these areas are explored. This is a survey course with emphasis on terminology and key sources of information in the industry.		
FSHNMKTG 10104198	Fashion CAD Lab	1 Credits/Units
This class focuses on fashion components using Adobe Illustrator. Students research and create a line of clothing using CAD.		
GLBL ED 10140101	Traditional Healing in Cross Cultural Context	3 Credits/Units
Traditional Healing in Cross Cultural Context is a study abroad course that will prepare general education and occupational students to experience how indigenous people embody the idea of health and healing in everyday life. In this interdisciplinary course, students will explore the concepts of traditional healing and indigenous cosmology as it relates to the health of the individual, the community, and the earth. Students will also engage in independent research and collaborative projects to support the formulation of a personal wellness philosophy. All students will participate in a service learning component as part of the course.		
GLBL ED 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.		
GLBL ED 10140112	Renewable Energy for the Developing World	3 Credits/Units
The 1 credit Renewable Energy for the Developing World provides an examination of energy and economics in developing countries with special consideration given to renewable energy sources. The course has 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 3 credit course is also offered for transfer credit as 20-806-290, (Renewable Energy for International Development) that also includes 8 weeks of online instruction.		
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	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, productivity, 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 10201112	Color	2 Credits/Units
Explores the fundamental components of color essential to all artists and designers. Lectures and exercises introduce color theory, psychology, perception, value, harmonies and trends. Various projects utilizing traditional and digital tools and media establish the impact of color in developing successful, contemporary, visual solutions to design and illustration assignments.		

GRDSGN 10201117	Illustrative Figure Drawing	3 Credits/Units
Incorporates traditional figure-drawing techniques and approaches with a concern for illustrative usage and figure indication for design and layout situations.		
GRDSGN 10201121	Graphic Design	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 layout and production of art. 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 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 Communication	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
This course introduces students to the art of letterpress printing. Projects provide a foundation in designing for letterpress, including typography, composition, image creation/selection, color separation, and ink and paper selection. Through a series of projects, students will be introduced to professional practices in a letterpress shop, terminology, prepress, registration, and locking up. Prints will be generated on a variety of presses, including a Vandercook cylinder proof press, a Chandler & Price platen job press, and an automated Heidelberg windmill platen press. Artwork will be created with metal and wood handset type, linoleum/other relief blocks, and photopolymer plates created 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. Amalgamation of printing processes (letterpress, screen printing, offset printing) will be introduced. Students		
will gain entrepreneurial experience through creation of products		
for sale in the college bookstore.		
GRDSGN 10201149	Advanced Figure Drawing	3 Credits/Units
This course offers an advanced combination of traditional figure-drawing techniques and approaches, with an emphasis on illustrative usage and figure indication for design and layout situations.		
GRDSGN 10201151	Typographic Design	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 graphic design. Class projects cover a range of applications in print and digital media.

GRDSGN 10201152 Applied Drawing 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

In this course, students simulate the experience of helping a client launch a new business. 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. This is an advanced-level course. The level of work produced is expected to be portfolio quality. Technical proficiency with computer software is assumed. The ability to work independently and self-directed is a must.

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 10201155 Content Management Systems for Designers 3 Credits/Units

This course will introduce the basics of creating web sites using Content Management Systems (CMS). Students will learn how to publish blogs, posts and pages, work with themes, employ widgets, create custom menus, activate plugins, and utilize page templates. Students will use self-hosted and cloud-hosted platforms. Additionally, the course will use HTML, CSS, Dreamweaver and other text editing software, and ftp software. Students are required to acquire server space to host their work.

GRDSGN 10201156 Programming for Designers 3 Credits/Units

Students will be introduced to the programming languages that drive front-end user interface design. In this course, you'll learn the fundamental programming concepts and syntax of the JavaScript programming language, as well as other languages and techniques.

GRDSGN 10201157 Social Media Concepting 3 Credits/Units

Create campaignable content for platforms such as Facebook, Instagram, Snapchat and others. 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 Interactive Design Lab 2 Credits/Units

This course introduces students to working in a contemporary digital workflow and provides a studio-like experience. Students will work in a agile development environment, with a focus on concept, user experience, usability and most importantly, design execution. They will use the skills they have acquired and work to develop real-world solutions for a variety of digital mediums.

GRDSGN 10201161 Web & Digital Media Design Portfolio Preparation 2 Credits/Units

Students work to prepare a portfolio of their work for prospective employers. 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 10201162 Graphic Design 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 Design 3 Credits/Units

User Experience (UX) Design is all about people—designing interfaces that people will use. Thinking about how they interact with interfaces. Students will learn how to apply user-centered design principles to improve websites, forms, mobile apps, etc. We will delve into user research, wireframing & prototyping, and user testing while using the latest software & tools.

GRDSGN 10201177 Web Page Design 3 Credits/Units

During this course, students learn basic web design skills by creating several exercises and web sites. These projects build on each other, and increase in complexity. Students are taught industry standard best practices for coding HTML5 and CSS, web typography, graphic preparation, incorporating javascript, usability and accessibility. Students are also introduced to uploading files, server space, testing and browser compatibility. Hand coding, web page layout software, and cloud-based layout platforms are all utilized. Exploration and analysis of existing sites on the web will also be a focus and source of information and inspiration.

GRDSGN 10201178 Web Interactive & Animation 3 Credits/Units

This course will introduce current methods for web animation and user interaction. Primary focus will be with HTML5, CSS, and JavaScript platforms like Greensock (GSAP) as well as Adobe Animate to produce animated effects and interaction appropriate for screen, tablet and mobile.

GRDSGN 10201181 Introduction to Computer Graphics 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.

GRDSGN 10201182 Applied Computer Graphics 3 Credits/Units

The students enhance their knowledge and skill in the use of design, illustration and page layout software (Adobe Creative Cloud) through the creation of a variety of design and illustration projects. Emphasis on original, strong images and type integration, as well as 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 to a wide variety of design applications. Students will learn how to create focal points and hierarchy across multiple-page publications, digital applications and other common branding elements. Projects are designed to give freedom to explore various styles and a range of ideas that mimic a typical agency setting.

GRDSGN 10201189 Web Design Project Management 2 Credits/Units

Real client projects will provide opportunities to work in teams, manage projects, conceptualize, organize and acquire content, develop architecture and assemble a production plan. Advanced web page layout features such as templates, libraries, use of CSS, implementation of javascript and spry widgets will be introduced.

GRDSGN 10201193 Mobile Web Design 3 Credits/Units

The future of the web is mobile; learn the latest strategies in web design theory and technology to create a powerful experience on any device. This course is designed for students who wish to expand their knowledge of websites to the most modern of Internet users - people who use their mobile phones and tablets to access the Internet. In this course you will gain practical knowledge of the different types of mobile web design, mobile web usability, accessibility and mobile web optimization.

GRDSGN 10201195 Advanced Web Page Design 3 Credits/Units

Continues to focus on the design, page layout and graphic preparation skills necessary to produce full-functioning webpages. Students create several web examples, incorporating more complex features and skills. Practical exercises are implemented to focus on specific production skills. Design continues to be emphasized through examples, critiques and demonstrations. Information is delivered primarily through lecture, demonstration and hands-on learning exercises.

GRDSGN 10201198 Social Media/Web Design Strategies 3 Credits/Units

This course will introduce essential strategies that make for successful websites and social media campaigns. Topics covered include: User Experience, User Research, Content Strategy, Information Architecture, Search Engine Optimization, Analytics, Accessibility, Social Media, and the Mobile Web. Students work on real world case studies to learn and practice skills that can be applied in any profession that works with social media or websites.

HISTORY 20803204 Making of Modern Europe 3 Credits/Units

Renaissance, Reformation, and Revolution 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

East Asian Civilization will explore the historical, cultural, social and philosophical roots of East Asia. East Asia or the Pacific Rim includes China (also Taiwan, Hong Kong and Macao), Japan, Korea and Mongolia. This area is expected to be the newest economic and political powerhouse and has led many scholars to already name the 21st century the "Pacific Century." The purpose of this course will be to introduce students to this vast, complex and strategic area by primarily using history and culture. It will stress major themes in East Asian civilization and these themes will connect to form a whole picture.

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 20803230 **Women In History** **3 Credits/Units**
 Public Man, Private Woman: Bronze Age to Glass Ceiling introduces students to women's history, specifically the various roles played by and assigned to women in western societies and focusing on the question of how and why women's lives have changed during the past thirty centuries. Students will examine women's experiences and their images in the past by analyzing the lives of selected notable women as well as broad categories of women, e.g. prostitutes, peasant wives, noblewomen, feminists. The traditional historical periods covered include the Ancient (Greece and Rome), the Medieval (Europe) and the Modern (Europe and the U.S. since 1500).

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 20803240 **Afro-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.

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 **Hotel/Restaurant Cost Control** **3 Credits/Units**
 Cost Control presents concepts and techniques of cost control in the hospitality industry. Students select and apply methods, procedures and systems to control costs, and analyze the application, theory and concepts. Focuses on concepts for hospitality and tourism managers who are responsible for making strategic and proactive decisions to maximize revenues in a cost efficient way. Fixed product supply and varying consumer demand make this a challenge. These managers must dedicate critical attention to core product revenue maximization due to the perishable (time-sensitive) nature of a service based product. Performance in this task is measured within the firm's revenue management system, where the goal is to generate maximum revenue

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.		
HOSPT 10109182	Global Studies Seminar	3 Credits/Units
This unique learning and travel experience gives students the opportunity to enhance their understanding of the global marketplace. Upon completion of the course and travel students will be familiar with the history, culture, social and business issues of the host country. Students will examine current trends and business practices relating to (but not limited to) management, marketing, hospitality and global strategies. Participation in this course requires travel to the host country. This experience is designed to help students develop a lifelong global mindset and to enhance abilities to communicate, work on international teams and think creatively.		
HRMGT 10116145	Introduction to Human Resources	3 Credits/Units
Topics include: the nature of human management, strategic human resource planning, issues in human resources, planning, equal employment opportunity, analyzing and staffing jobs, training and developing human resources.		
HRMGT 10116147	Wage, Salary & Benefits Admin	3 Credits/Units
Topics include: Basic systems and plans of compensating employees, incentives and executive compensation, principles and techniques in the administration of employee benefit programs.		
HRMGT 10116148	Labor Relations	3 Credits/Units
Topics include employee rights and discipline; union-management relations; collective bargaining and grievance management; and assessment systems.		
HRMGT 10116149	Effective Staffing	3 Credits/Units
This course provides a comprehensive approach to planning for staffing; employing a wide range of recruiting methods; and identifying optimal selection methods.		
HRMGT 10116152	Organizational Training and Development	3 Credits/Units
This course provides an overview of the Training and Development function in organizations. There will be many opportunities to design and practice methods for planning for training, needs analysis, management development, and organization development. Students will learn effective techniques for on-the-job training, developing job aids, and designing classroom instruction. Introductory information on topics such as embedded learning, e-learning, and simulations will also be included.		
HRMGT 10116153	Meeting Facilitation	1 Credits/Units
This course provides both information about meeting facilitation and an environment for practice. The ultimate goal is for students to learn to conduct effective meetings.		
HRMGT 10116168	Employment Law	3 Credits/Units
Topics include: unemployment compensation laws; workers' compensation laws; hiring and firing practices; sexual harassment in the workplace; the Americans with Disabilities Act; and labor law basics under the National Labor Relations Act. Course examines current "black letter law" together with case decisions. Content is appropriate for persons whose career plans involve employee management.		
HRMGT 10116169	Human Resources Capstone	1 Credits/Units
This final course in the Human Resource Management program integrates and enhances knowledge and skills developed throughout the program. Topics include staffing, labor relations, compensation, training and development, and employment law.		
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. Prerequisites: Human Services Associate course prerequisites.		
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. Prerequisites: Human Services Associate course prerequisites.		
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. Prerequisite: 10-520-117.		

HUMSVC 10520117	Interviewing	3 Credits/Units
Students learn principles and techniques needed to conduct informational and supportive interviews. Students practice interviewing skills during class. Prerequisites: Human Services Associate course prerequisites.		
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. Prerequisite: 10-520-105.		
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. Prerequisite: 10-520-106.		
HUMSVC 10520135	Issues in Alcohol and Other Drug Abuse	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. Prerequisites: Human Services Associate course prerequisites.		
HUMSVC 10520136	Counseling Alcoholics and Other Drug Abusers	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 10520139	Human Services Agency Experience 1	4 Credits/Units
Students develop skills as human services workers by working directly or indirectly with clients in community agencies 16 hours per week. An agency supervisor and a faculty member closely supervise students. The human services staff makes field placement assignments. Prerequisites: 10-520-105, 110-520-116, 10-520-117 and concurrent enrollment in 10-520-188.		
HUMSVC 10520140	Human Services Agency Experience 2	4 Credits/Units
Students continue their on-the-job training in community agencies for 20 hours per week. By the end of the course, students have the skills of an entry-level human services worker. Prerequisites: 10-520-139 and 10-520-188, and concurrent enrollment in 10-520-189.		
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 10520150	AODA Special Populations	3 Credits/Units
Provides an understanding of the unique AODA concerns, problems and needs of particular special populations, including youth, women, older adults, people with disabilities, gays and lesbians, ethnic and other minority groups.		
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. Prerequisites: 10-520-116 and 10-520-117.		
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. Prerequisites: 10-520-105, 10-520-116, 10-520-117 and concurrent enrollment in 10-520-139.		
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. Taken concurrently with: 10-520-120 and 10-520-140. Prerequisites: 10-520-139 and 10-520-188.

HVAC 50401590 Trade Hvac Semester 1 2 Credits/Units
This course description is unavailable at this time. Please contact the center offering the course for more information.

HVAC 50401591 Trade Hvac Semester 2 2 Credits/Units
This course description is unavailable at this time. Please contact the center offering the course for more information.

HVAC 50401592 Trade Hvac Semester 3 2 Credits/Units
This course description is unavailable at this time. Please contact the center offering the course for more information.

HVAC 50401593 Trade Hvac Semester 4 2 Credits/Units
This course description is unavailable at this time. Please contact the center offering the course for more information.

HVAC 50401594 Trade Hvac Semester 5 2 Credits/Units
This course description is unavailable at this time. Please contact the center offering the course for more information.

HVAC 50401595 Trade Hvac Semester 6 2 Credits/Units
This course description is unavailable at this time. Please contact the center offering the course for more information.

HVAC 50401596 Trade Hvac Semester 7 2 Credits/Units
This course description is unavailable at this time. Please contact the center offering the course for more information.

HVAC 50401597 Trade Hvac Semester 8 2 Credits/Units
This course description is unavailable at this time. Please contact the center offering the course for more information.

IND MECH 10462304 Industrial Fluid Distribution Systems 2 Credits/Units
Covers installation and repair of fluidic systems. Includes fittings, thread cutting, pipe sweating, roll grooving, solder, plastic cementing, repair equipment and tools. Pumps, valves, water supply systems and fire protection distribution systems covered.

IND MECH 10462306 Metal Processes Maintenance 2 Credits/Units
Includes machine shop operations, sheet metal work, soldering and brazing, forging and heat treatment, grinding, tool sharpening, metal casting and other metal applications as related to industrial machinery repair.

IND MECH 10462311 Industrial Equipment Mechanisms 2 1 Credits/Units
Mechanical drive components and systems are studied with emphasis on selection, application, and proper installation techniques. Includes hands-on assembly, alignment, lubrication, and disassembly of drive shafts, bearings, seals, gaskets, belt, chain and gear drives, clutches and brakes, couplings and universal joints, linear motion components, and power transmission accessories.

IND MECH 10462314 Industrial Maint Mechanic 1 3 Credits/Units
Emphasizes basic tools used for maintenance. Presents information on lock out/tag out, confined space and safe rigging practices, manufacturing machine types and operations, torque, metal properties and hardness, gaskets, pumps, gears, motors, pulleys and alignment.

IND MECH 10462316 Industrial Maintenance Mechanic 2 3 Credits/Units
Emphasizes on-the-job installing, troubleshooting and maintaining manufacturing systems with special focus on automated systems. This course is completed as an internship.

IND MECH 10462318 Maintenance Management 2 Credits/Units
Emphasizes maintenance management and quality control techniques to give maintenance students an understanding of their roles in an organization. Covers maintenance record keeping, parts ordering and shop operation.

IND MECH 10462320 DC/AC Circuits 3 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.

IND MECH 10462322 Industrial Electricity and Controls 4 Credits/Units
Studies basic 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.

IND MECH 10462324 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.

IND MECH 10462326 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.

IND MECH 10462327 Electronic Circuits for Maintenance 3 Credits/Units
 Presents semiconductor devices with an emphasis on their practical use. Students construct and troubleshoot power supplies, amplifiers, electronic switches, relay drivers, photo-optical isolators and power control electronics. Students learn to identify and troubleshoot diodes, bipolar transistors (BJTs), field-effect transistors (FETs), silicon controlled rectifiers (SCRs and Triacs), light-emitting diodes (LEDs) and other components found in industrial electronics.

IND MECH 10462328 Interfacing Sensors with Computer Controls 3 Credits/Units
 Applies various sensors to analog input modules of programmable controllers and to A/D converters for computer systems.

IND MECH 10462330 Heating and Air Conditioning 1 3 Credits/Units
 Covers basic environmental equipment maintenance. Presents applications of HVAC components, refrigeration controls, condensers, hydronics, boilers, heat exchangers, dampers, compressors, plumbing, pumps, measurement, blowers and preventive maintenance/repair. Also covers EPA CFC certification.

IND MECH 10462332 Heating and Air Conditioning 2 3 Credits/Units
 Advanced environmental equipment installation and maintenance course which puts the theory learned in 32-401-308 into practice including boiler competencies.

IND MECH 10462334 Facilities Maintenance 3 Credits/Units
 Covers safety, schematics, wall framing, electrical services, insulation, drywall applications, painting, floor applications, roofing and siding applications. Includes the study of appropriate applications of material to facilities.

IND MECH 10462336 Building Automation 3 Credits/Units
 Develops skills required to install, analyze, modify, and calibrate HVAC (Heating, Ventilating, and Air Conditioning) control systems. The fundamentals of control systems will be studied and applied to common control strategies most often found in commercial HVAC systems.

IND MECH 10462340 Manufacturing Systems, Application and Control 3 Credits/Units
 Introduces computer control systems and fundamentals of motion control. Presents programmable logic controllers (PLCs) along with design, integration and troubleshooting techniques.

IND MECH 32462303 Industrial Equipment Mechanisms 1 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.

IND MECH 32462306 Industrial Fluid Power 1 1 Credits/Units
 Fundamentals of fluid power (hydraulic and pneumatic) and its components as well as principles, functions and terminology. Covers the application of basic fluid power systems to various machines along with maintenance and troubleshooting.

INDMANUF 10623100 Safety for Industry 1 Credits/Units
 This course reviews basic safety standards for industry as outlined by OSHA. Designed for general industry workers, it focuses on identification, avoidance, control, and prevention of safety and health hazards a worker may encounter on a general industry site. Those who successfully complete the hourly and course requirements receive an OSHA 10-hour completion card. The Manufacturing Skill Standards Council (MSSC) safety standards are also reviewed.

INDMANUF 10623200 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.

INDMANUF 10623300 Fluid Power 1 for Industry 1 Credits/Units

Capstone course in the Cloud Support Associate program. It provides students an opportunity to showcase the knowledge and skills learned from the prerequisite classes. Through independent and group projects, students will demonstrate the ability to design, plan and execute IT infrastructure automation using Cloud technologies, industry-standard tools, and scripting languages. The focus is automating Public Cloud solutions while exploring Hybrid-Cloud solutions where appropriate. Students will learn the fundamental concepts of DevOps methodology, and demonstrate that process using industry-standard tools.

ITCLOUD 10157196	Cloud Internship	3 Credits/Units
Provides work experience in an area data center environment offering a variety of experiences administering 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.		
ITNET 10150121	Intro to Cisco Networking	3 Credits/Units
This is an introductory course that introduces the architecture, structure, function and components of computer networks. Dynamic and static routing will be introduced. 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, 10-150-122 within one year of completion of Intro to Cisco Networking, 10-150-121; Working knowledge of Microsoft Windows (computer literacy, proficiency with a mouse, file management).		
ITNET 10150122	Cisco Networking 2	3 Credits/Units
Students learn how to configure a router and a switch for basic functionality. Students will be able to configure and troubleshoot routers and switches and resolve common issues with protocols, virtual WANs and inter-VLAN routing in both IPv4 and IPv6. NOTE: Must follow Intro to Cisco Networking, 10150121, within one year.		
ITNET 10150123	Cisco Networking 3	3 Credits/Units
Students learn how to apply the internetworking skills from Intro to Cisco and Cisco Networking 2 by building networks using EIGRP, multi-area OSPF, Spanning Tree Protocol, and Link Aggregation. NOTE: Must follow Cisco Networking 2, 10150122 within one year.		
ITNET 10150124	Cisco Networking 4	3 Credits/Units
Students learn how to connect networks using WAN circuits, including PPP, Frame Relay and Broadband Solutions. Students will also implement NAT and become introduced to Virtual Private Networks and network monitoring. NOTE: must follow Cisco Networking 2, 10150122, within one year.		
ITNET 10150150	VoIP Convergence Fundamentals	3 Credits/Units
This class prepares students for the Cisco CCNA-Voice certification. It will introduce students to the terms and definitions of Analog phone systems and Voice over IP (VoIP) networks. Topics included in this course will be configuring and maintaining an IP Telephony system, provisioning phones and users, configuring call features, and establishing voicemail. Cisco Call Manager, Call Manager Express, Cisco Unity Connection Voicemail, and Cisco VoIP phones are used to configure and build a converged IP telephony infrastructure suitable for a business. Troubleshooting will be emphasized.		
ITNET 10150151	Advanced Networking Topics	3 Credits/Units
This class introduces more advanced networking topics from the CCNP exams, such as: Implementing VLAN based solutions with secure layer 2 and layer 3 services, implementing High Availability in a LAN and WAN, implementing QoS on converged networks, specific IP QoS mechanisms for implementing the DiffServ QoS model, wireless security and basic wireless management. Quality of Service (QoS) will be used to design and implement a structure to prioritize voice and data applications across the network. Wireless will include mobility between lightweight access points. Troubleshooting and teamwork will be emphasized.		
ITNET 10150155	CCNP Route	3 Credits/Units
This class will focus on preparing the student to take the Cisco CCNP Route certification exam. Topics will cover the current version of the certification exam such as: Network Principles, Layer 2 and 3 Technologies, VPN Technologies, and Infrastructure Security and Services. This class is set up as a remote access instructor-led class.		
ITNET 10150176	Intermediate Networking	3 Credits/Units
Students will install, configure, and secure access points and enable devices to associate to the WLAN. Students are introduced to computer network vulnerabilities and threats and learn to safeguard networks using current wireless technologies. Students will focus on the design, planning, implementation, operation, troubleshooting and securing of LANs and WLANs.		
ITNET 10150194	Firewall/VPN Technologies	3 Credits/Units
This course introduces the security student to the common technologies used for defending the perimeter of a modern business network. In depth hands-on exercises are used to instruct the student in the related technologies including NAT, PAT, ACL construction, application gateways, and stateful packet inspection. The student additionally learns a common implementation of both site-to-site and remote access VPN's. The student must demonstrate the ability to implement a basic firewall that simulates the perimeter of a basic business network.		
ITNET 10150195	Networking Internship	3 Credits/Units

In this course, the student learns to analyze the business organization as a system, to structure both the information and processes of a business or organization, and to complete the systems development process through the logical design phase. The course utilizes an object-oriented methodology for the systems development process.

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.

ITPROG 10152139 **iOS Development** **3 Credits/Units**
 The purpose of this course is to introduce students to the development of iOS applications (e.g., iPhone/iPad/iPod/Apple Watch devices). Students will work with modern development concepts using the Swift programming language. Students will be introduced to Object-Oriented, Functional Programming, event-driven programming, and multi-threaded programming. Students will start developing iOS applications using the Xcode IDE and the iOS Simulator.

ITPROG 10152143 **Advanced iOS Development** **3 Credits/Units**
 Students will create simple to moderately complex iOS applications using the Swift programming language with Xcode. iOS development topics will include user interface development with Storyboards and code, views and view controllers up through table views, accessing server APIs, and local data storage. Advanced programming concepts covered will include classes, structs, enums, OO class design, Functional Programming basics, database concepts for mobile development, source code management with git, and RESTful APIs with JSON. Deploying iOS app to devices will be covered and required.

ITPROG 10152153 **Professional iOS Development** **3 Credits/Units**
 Focuses on professional iOS development in a team environment. Students will use modern remote-team tools and practices including source code management with git, team chat tools, and video conferencing. Emphasis will be on how to keep current with the rapidly changing iOS development environment. Students will create and present a talk on an advanced iOS topic, develop a personal app of their choosing, and create an app with their team. This is a course designed to help students transition from student life to the professional world of iOS and software development.

ITPROG 10152157 **Ruby on Rails Development** **3 Credits/Units**
 Introduces the student to dynamic web page development using the Ruby on Rails web development framework. The course will also use the popular MySQL open source database management system. Topics will include an introduction to the Ruby programming language, installing Ruby and Ruby on Rails, an overview of the Rails Framework, ActiveRecord basics, ActionController coding, Action Views, AJAX and the Web 2.0, ActionMailer basics, security, deployment, and scaling. Students will produce a very modern web application that can be adapted to many professional web development needs.

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. Advanced web application features such as shopping carts, content management using Drupal, web forums and connecting to web services are discussed. Installation and customization of open source PHP web applications are also covered.

ITPROG 10152168 **AJAX and JavaScript Web Development** **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 call. Students learn how to add JavaScript and AJAX to existing programs, and design new applications to exploit the power of Web 2.0. Students learn the three layers of AJAX framework, and when (and how) to use each. Students learn how to create rich clients, use visual effects, add client-side validation, and handle forms.

ITPROG 10152174 **IT Mobile Development Internship** **3 Credits/Units**
 Opportunities for students to learn and practice Mobile applications development in a hands on experience in a local IT employer. Objectives commensurate with student's background and experience. Students will seek internship opportunities and interview to be selected for internships. Activities include determining requirements for an application in either Android or iOS, then developing and testing this application. In addition, students will share their internship experiences with other interns. If an internship experience is not available, students may (with instructor approval) complete a mobile development project under supervision of the instructor.

ITPROG 10152189 **Android Applications Development** **3 Credits/Units**

This course introduces developing applications for Android devices. Topics include Android UI layout and widgets, both in XML and programmatically; Android SDK versions and compatibility; model-view-controller (MVC); introduction to fragments; action bar, menus, lists and dialogs; device dependency issues. Heavy emphasis will be placed on overall design and efficiency. It is not necessary to own an Android device, though the applications developed in the course can be deployed to one. Basic Java programming knowledge is assumed. Development and debugging in Android Studio IDE is covered.

ITPROG 10152195 Advanced Android Development 3 Credits/Units

This is the second course in Android application development, assuming a basic background in Android development and taking up more advanced topics including topics from the most recent release of Android such as material design. More complex user interfaces are continued to be incorporated, including fragment focused design and multi-activity applications. Emphasis is given to the appropriate usage of AsyncTask, HandlerThread, loopers, handlers, and background threads. The use of singletons, shared preferences, services vs. threads, broadcasts, intents and receivers, and notifications are implemented in labs and projects. Various background services (networking, file I/O, interaction with content provider, etc.) are included as well. Design issues are explored with consideration to a phone, 7" tablet, and 10" tablet. Throughout the course, focus will be placed on designing for multiple screens, creating custom views, creating backward-compatible UI, and managing system UI. All development will incorporate version control systems (VCS) such as Git for source code management and will utilize a web-based repository hosting system such as GitHub or Bitbucket.

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 10151114 Linux Server 2 (Security) 3 Credits/Units

This class provides students with the tools they need to perform common administrative functions in some of the most popular scripting environments. The class will examine PHP in the context of an Apache webserver, and then it will examine using GNU BASH and Microsoft PowerShell scripting from the command line to complete every day administrative functions. Tools include: Bash, PHP, Apache, and PowerShell.

ITSECUR 10151133 Computer Forensics 3 Credits/Units

This course provides a broad overview of computer forensics and investigation tools and techniques. All major personal computer operating system architectures and disk structures will be discussed, as well as what computer forensic hardware and software tools are available. The details of data acquisition, computer forensic analysis, email investigations, image file recovery, investigative report writing, and expert witness requirements. The course provides a range of laboratory and hands-on assignments that teach about theory as well as the practical application of computer forensic investigation. Open Source tools include: The Sleuth Kit, dd, Scalpel, etc...

ITSECUR 10151137 Intrusion Detection 3 Credits/Units

This course provides a broad overview of the tools and techniques commonly used for detecting network sourced attacks. 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 detected events. The student must demonstrate the ability to plan, design, and build a network IDS that fulfills the security needs of a common business or organization. Open Source tools include: tcpdump, snort, barnyard, etc...

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 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 network security 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 10151197	Network Security Internship	3 Credits/Units
An on-the-job experience in Madison area companies that maintain, manage and secure computer networks. The emphasis is on hands-on design, installation, configuration, management, documentation, troubleshooting, maintenance and securing of LANs. 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+ 220-901 exam. CompTIA's A+ Certification is a widely accepted IT industry standard certification for an entry-level IT PC support professional. NOTE prerequisite: Working knowledge of Microsoft Windows (computer literacy, proficiency with a mouse, file management).		
ITTECSUP 10154105	A+ Software Essentials	3 Credits/Units
This course presents intermediate level exposure to computer operating systems and the hardware on which it runs. Students work through hands-on activities and labs to learn and apply troubleshooting skills to properly diagnose, document, and resolve common operating system problems. Students also gain an understanding of appropriate customer support techniques and operational procedures. This course can help prepare the student for CompTIA's A+ 220-902 exam. CompTIA's A+ Certification is a widely accepted IT industry standard certification for an entry-level IT PC support professional.		
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 support industry. Topics include successful communication with technology users, end-user training, budgeting and other management priorities, the evolution of IT support, and best practices of the ITIL framework.		
ITTECSUP 10154146	Help Desk Tools and Techniques	3 Credits/Units
This course presents the core service desk processes and the technical roles and responsibilities of an IT support professional. The course examines the support software options for logging, tracking, and managing data, escalating calls, and resolving problems through hands-on, real-world projects using current, ITIL and ITSM based Help Desk software.		
ITTECSUP 10154147	Supporting Emerging Technologies	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. Topics include new operating systems and devices, mobile computing support, new technology support techniques and support in a virtualized environment.		
ITTECSUP 10154148	Help Desk Specialist Internship	3 Credits/Units
Learn the "value-added" importance of an IT support professional by performing at least 216 hours at area IT Support or Help Desk operations. Under instructor supervision, receive on-the-job Help Desk work experience in area companies. By consent of instructor, a special project or participation in the WolfPack Techies support team may be substituted for the internship.		
ITTECSUP 10154171	Windows Server 1	3 Credits/Units
Gain the skills necessary for supporting and configuring a Windows server including the installation and configuration of Windows Active Directory environment. Configure and deploy network services such as DHCP and DNS. Learn the practical skills required to create and implement Group Policy and configure security policies while preparing for Microsoft MCSA Exam 70-410.		
ITTECSUP 10154172	Windows Server 2	3 Credits/Units
Gain the skills to support and maintain Windows Active Directory environment. Gain practical experience managing a Windows Active Directory infrastructure with DNS and VPNs. Configure Network Policy Services, Active Directory account policies and advanced Group Policy processes while preparing for Microsoft MCSA exam 70-411.		
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, configuring appropriate NTFS and share permissions, and learning the operation of VMWare Workstation. NOTE prereq: Students are required to have a working knowledge of Microsoft Windows operating system (computer literacy, proficiency with a mouse, file management).		
ITTECSUP 10154188	Windows Active Directory	3 Credits/Units

Gain the skills to administer and support a Windows Active Directory environment—and prepare for Microsoft Exam 70-640—a core requirement for the MCTS Windows Server Specialization. Gain practical experience managing a Windows Active Directory infrastructure, including configuration, backup and troubleshooting while preparing for the Microsoft Exam 70-640.

ITTECSUP 10154190 Linux Server 1 3 Credits/Units
 Introduces Linux with a focus on system administration skills. Topics include installation, file and directory management, command execution, input/output redirection and pipes, shell scripts, network services, security, troubleshooting and the X Window system.

ITTECSUP 10154194 Windows Server Pro 3 Credits/Units
 This is a capstone course for students in the IT – Systems Administration program. It will provide an opportunity to showcase the knowledge and skills learned from the prerequisite classes in the program. Through independent and group projects, Students will demonstrate the ability to design, plan and execute an infrastructure that represents the services offered by a common business or organization on a Windows platform.

ITTECSUP 10154198 Systems Administration Internship 3 Credits/Units
 Provides work experience in an area data center environment offering a variety of experiences managing and operating computer systems. 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.

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 20801246 Investigative Journalism 3 Credits/Units
 In this course, students will move beyond basic news writing and reporting skills. Students will focus on the role of investigative reporting in society and the public's right to know. Workshop-style training will be led by the instructor. The learner will develop investigative techniques to examine issues of ethics, fairness and accuracy. Students will identify patterns of systemic problems, not just one isolated incidents affecting individuals, as well as explain complex social problems and reveal any evidence of wrongdoing or abuse of power. These discoveries will be developed into an in-depth feature story that illustrates the importance of organization in the feature writing process for publication.

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 Documentary Storytelling 3 Credits/Units
 Documentary Storytelling is an introduction to the craft of telling non-fiction and news stories through the medium of digital video. This course will teach news reporting and writing skills needed for the documentary format, along with journalism theory, law, and ethics of video journalism. Students will also learn basic digital camcorder operation, storyboard development, video editing, sound editing, and podcasting.

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 provides real-world journalism skills and experiences for students. Students will spend the semester working on the staff of The Clarion, which is the student media organization, consisting of its newspaper, Web platform, television news program, and outreach services (i.e. classroom presentations; volunteer events; co-sponsorship of lecture series). In Journalism Practicum 1 students will perform service hours contributing news and feature stories and photographs to The Clarion. Students of Journalism Practicum 1 will attend editorial meetings, contribute story ideas and report, write and edit news and feature stories. Students who take Journalism Practicum 1 as a one-credit course must spend at least 36 hours working as a news reporter for The Clarion. Students who take Journalism Practicum 1 as a two-credit course must spend 72 hours working as a Clarion journalist.		
JOURNAL 20801272	Journalism Practicum 2	1 Credits/Units
Journalism Practicum 2 is a follow-up to Journalism Practicum 1. It provides real-world journalism skills and experiences for students. Students will spend the semester working on the staff of The Clarion. In Journalism Practicum 2 students will perform service hours engaged in issue-based journalism for The Clarion media organization. These students will develop enterprise and investigative news and feature stories for The Clarion; they will also copy, edit and fact check these longer, issue-based news stories. Students of Journalism Practicum 2 will attend editorial meetings, contribute story ideas and then develop these story ideas according to the deadlines. Students who take Journalism Practicum 2 as a one-credit course must spend at least 36 hours working as a news reporter for The Clarion. Students who take Journalism Practicum 2 as a two-credit course must spend 72 hours working as a Clarion journalist.		
JOURNAL 20801273	Journalism Practicum 3	1 Credits/Units
Journalism Practicum 3 is a follow-up to Journalism Practicum 2. Students will spend the semester working on the staff of The Clarion. In Journalism Practicum 3 students perform service hours engaged in news reporting, copyediting and new media activities for The Clarion media organization. In addition to continuing the news reporting and writing that they did for Journalism Practicums 1 and 2, students will develop visual and digital video stories, as well as work with basic elements of newspaper design. Students of Journalism Practicum 3 will attend editorial meetings, contribute news and new media story ideas and then develop these story ideas according to deadlines. Students who take Journalism Practicum 3 as a one-credit course must spend at least 36 hours working as a news reporter for The Clarion. Students who take Journalism Practicum 3 as a two-credit course must spend 72 hours working as a Clarion journalist.		
JOURNAL 20801274	Journalism Practicum 4	1 Credits/Units
Journalism Practicum 4 is a follow-up to Journalism Practicum 3. Students will spend the semester working on the staff of The Clarion. In Journalism Practicum 4, students will perform service hours engaged in high-level editing, managing and directing activities for The Clarion media organization. In addition to continuing the news reporting, news writing, video journalism, and photojournalism that they did for Journalism Practicums 1, 2, and 3, students will assume high-level management roles, as well as work with advanced elements of newspaper design and broadcast direction. Students of Journalism Practicum 4 will lead editorial meetings, direct supporting staff, and manage the development of all Clarion operations. Students who take Journalism Practicum 4 as a one-credit course must spend at least 36 hours working as a news reporter for The Clarion. Students who take Journalism Practicum 4 as a two-credit course must spend 72 hours working as a Clarion journalist.		
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
This course provides opportunities for learners to perform routine venipuncture, routine capillary puncture and special collection procedures. Pre-requisite: Completion of or concurrent enrollment in 10-513-110.		
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. Pre-requisites: 10-513-110, 10-513-111, 10-513-114. Co-requisites: 10-513-120, 10-513-121, 10-513-122, 10-513-123, and 20-806-273.		

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. Pre-requisites: 10-513-110, 10-513-111, 10-513-113, and 10-513-114. Co-requisites: 10-513-115, 10-513-121, 10-513-122, 10-513-123, and 20-806-273.

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. Pre-requisites: 10-513-115, 10-513-120, 10-513-121, 10-513-122, 10-513-123, and 20-806-273.

LABASST 10513131 **Clinical Chemistry 1** **3 Credits/Units**
 This course introduces techniques and procedures for routine analysis using photometric, potentiometric and separation techniques. Topics in this course include pathophysiology and methodologies for carbohydrates, lipids, proteins, renal function and blood gas analysis. Pre-requisites: 10-513-115, 10-513-120, 10-513-121, 10-513-122, 10-513-123, and 20-806-273. Co-requisites: 10-513-130, 10-513-132, and 10-513-133.

LABASST 10513132 **Clinical Chemistry 2** **2 Credits/Units**
 A continuation of Clinical Chemistry 1, this course includes techniques and procedures for analysis using sophisticated laboratory instrumentation. Topics include pathophysiology and methodologies for hepatic, bone, cardiac markers, tumor markers, endocrine function, fetal function, miscellaneous body fluids, and toxicology.

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. Pre-requisites: 10-513-115, 10-513-120, 10-513-121, 10-513-122, 10-513-123, and 20-806-273. Co-requisites: 10-513-130, 10-513-131, and 10-513-132.

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. Pre-requisites: satisfactory completion of 1st and 3rd semester Clinical Laboratory Technician program courses and concurrent enrollment in Advanced Microbiology, 10-513-140 and Clinical Experience 1, 10-513-151.

LABASST 10513151 **Clinical Experience 1** **3 Credits/Units**
 In this clinical you will practice the principles and 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 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 **Clinical Portfolio** **1 Credits/Units**
 Students prepare a portfolio of professional experiences, assessments and evaluations, clinical reports, class project summaries, a log of community service or professional activities performed while in the CLT program and resume for CLT employment. This course is graded pass/fail.

LABASST 10513170 **Introduction to Molecular Diagnostics** **1 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.

LANG INT 31538303 Cultural Competency and the Medical Setting 2 Credits/Units
 An orientation to some of the factors that influence people to speak, act, negotiate and make decisions. The objective is to modify personal assumptions and habits that impede success in the workplace, at whatever level of employment, whether domestic or international. Students will learn how styles of thinking, value systems and political/social realities affect relationships. Special consideration will be given to international communication, negotiations, marketing and host international visitors. Class is taught in English.

LANG INT 31538304 Introduction to Interpreting in Spanish 2 Credits/Units
 Specific theories and practices in interpreting oral communication from English to Spanish and Spanish to English. Includes theories of interpretation, techniques of interpretation, interpretation strategies, interpretation procedures, and modes of interpretation. Class is taught in English and Spanish. Prerequisite: 31- 538-301.

LANG INT 31538305 Introduction to Basic Translation Skills in Spanish 2 Credits/Units
 Principles and procedures for the translation of written materials. Includes an introduction to translation, translation preparation, translation procedures, basics of grammar in the target languages English and Spanish. Analysis of the Spanish language from the translator's point of view. Includes the structure of Spanish, cultural and stylistic components, paragraph and document development, mechanics and punctuation for editing, and writing resources. Class is taught in English and Spanish. Prerequisite: 31-538-302.

LDRSHP 20810267 Leadership As An Art 3 Credits/Units
 This course has as its central focus the development of leadership and group dynamics theory and assists the student in developing a personal philosophy of leadership, an awareness of moral and ethical responsibilities of leadership and an awareness of one's own ability and style of leadership. It provides the opportunity to develop essential leadership skills through study and observation of the application of these skills. The course encourages participants to develop their leadership behavior.

LITTRANS 20802250 Literature in Translation 3 Credits/Units
 Each section of Literature in Translation has a subtitle that represents the course content (e.g., Latin American Literature or Modern Francophone Literature). Reading selections and course activities introduce students to important literary works associated with the region or linguistic tradition named in the section's subtitle. Course materials include translated versions of texts originally written in a language other than English. No knowledge of the original language is required for enrollment in the course.

MACHT 10420126 Manufacturing Materials 2 Credits/Units
 Instructional units include safety, oxy-acetylene welding, brazing and cutting, shielded metal arc welding, gas metal arc welding, gas tungsten arc welding, flux cored arc welding, plasma arc cutting and conventional machining.

MACHT 32420304 Intermediate Metrology Applications 1 Credits/Units
 Course studies precision inspection methods while utilizing optical and electronic precision measuring instruments such as the profilometer, optical comparator, microscope, laser alignment machines, the Coordinate Measuring Machine and state-of-the-art computerized vision system.

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.

MACHT 32420323 Machine Tool 2 4 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 4 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

MACHT 50420714	Engineering Drawings for Machine Tool Trades Apprentices	1 Credits/Units
<p>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.</p>		
MACHT 50420715	Mechanical Hardware & Hand Tools for Machine Trades Apprentices	1 Credits/Units
<p>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.</p>		
MACHT 50420716	Turning Machines for Machine Trades Apprentices	0 Credits/Units
<p>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.</p>		
MACHT 50420717	Milling Machines for Machine Trades Apprentices	0 Credits/Units
<p>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.</p>		
MACHT 50420718	Drilling Machines for Machine Trades Apprentices	0 Credits/Units
<p>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.</p>		
MACHT 50420719	Grinding Machines for Machine Trades Apprentices	0 Credits/Units
<p>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.</p>		
MACHT 50420720	Cut-Off Machines for Machine Trades Apprentices	0 Credits/Units
<p>acquaint the apprentice with the basic types of cutoff machines used in industry, cutoff machine applications, cutoff machine tooling, and cutoff machine safety.</p>		
MACHT 50420721	Metallurgy & Materials for Machine Trades	1 Credits/Units
<p>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.</p>		
MACHT 50420723	Electrical Discharge Machining for Machine Tool Trade Apprentices	0 Credits/Units
<p>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.</p>		
MACHT 50420724	CNC Programming and Planning for Machine Trades Apprentices	1 Credits/Units
<p>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.</p>		
MACHT 50420725	Basic CAD/CAM for Machine Trades Apprentices	1 Credits/Units
<p>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.</p>		
MACHT 50420726	Jig and Fixture Design for Machine Trades Apprentices	0 Credits/Units
<p>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.</p>		
MACHT 50420727	Geometric Design and Tolerancing for Machine Trades Apprentices	0 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 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.

MATH 10804107 **College Mathematics** **3 Credits/Units**
 This course is designed to review and develop fundamental concepts of mathematics pertinent to the areas of: 1) arithmetic and algebra; 2) geometry and trigonometry; and 3) probability and statistics. Special emphasis is placed on problem solving, critical thinking and logical reasoning, making connections, and using calculators. Topics include performing arithmetic operations and simplifying algebraic expressions, solving linear equations and inequalities in one variable, solving proportions and incorporating percent applications, manipulating formulas, solving and graphing systems of linear equations and inequalities in two variables, finding areas and volumes of geometric figures, applying similar and congruent triangles, converting measurements within and between U.S. and metric systems, applying Pythagorean Theorem, solving right and oblique triangles, calculating probabilities, organizing data and interpreting charts, calculating central and spread measures, and summarizing and analyzing data.

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 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**

Intermediate Algebra studies the construction and resulting properties of the real number system. Students simplify and factor algebraic expressions using fundamental laws and order of operations, solve first and second degree equations and inequalities in one variable, solve exponential and logarithmic equations, graph first degree and second degree equations and inequalities in two variables, solve 2x2 and 3x3 systems of equations, simplify and solve equations involving rational expressions, and simplify and solve equations involving fractional exponents and radicals. 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 I 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.

MATH 20804203 Intermediate Algebra 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 20804208 Computer Science 4 Credits/Units
This course uses the object-oriented programming language Java in a project-based learning format where students will be given increasingly challenging problems. Projects will be brought through the five stages of development: program design, definition and design of library classes, coding, testing, and documenting. Project elements begin with input, output, storage, and operations, and continue through control structures (loops, branching, and methods), data structures (arrays and classes), and techniques for searching and sorting. Students will implement standard Java grammar elements including inheritance and interfaces and will use the compiler and debugger to debug programs. Students will practice analytical skills through elimination of run-time and logical errors and will exercise writing skills in documenting code to a prescribed industry standard. The course requires eight to ten hours per week outside of class.

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
College Algebra includes fundamental topics covered in Intermediate Algebra with a more careful look at the mathematical details and a greater emphasis on the concept of function. It covers quadratic, polynomial, rational, exponential and logarithmic functions, equations and inequalities; the use of matrices and determinants in solving linear systems of equations, solving non-linear systems; sequences and series.

MATH 20804213 Trigonometry 3 Credits/Units
Trigonometry 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 apply De Moivre's theorem and the nth-root theorem; 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 20804223	Calculus Methods for Business and Social Sciences II	3 Credits/Units
Calculus Methods for Business and Social Sciences II is a sequel to Calculus Methods for Business and Social Sciences I, 20-804-221, and is designed primarily for pre-business and social sciences students who need to develop more mathematical techniques than are covered in 20-804-221. The course will include a review of the techniques of single-variable calculus and business applications; expansion of the topics from multivariable calculus; Taylor approximations, polynomials, and series; first-order differential equations and two dimensional systems of differential equations; and difference equations with models from and applications in business and the social sciences.		
MATH 20804228	Calculus w Algebra & Trigonometry 1	5 Credits/Units
Designed for students of mathematics, science, and engineering who need some extra knowledge in precalculus and need a first semester calculus course. The course includes a review of the algebraic topics of absolute values, polynomials, factoring, quadratic equations, exponents and radicals, and simplification of algebraic expressions. It includes a review of the trigonometric topics of radian measure, trigonometric functions and their graphs, and trigonometric identities. The calculus topics covered include an introduction to the basic properties of limits, rate of change of functions, continuity, derivatives of algebraic and trigonometric functions, their products quotients and compositions, curve sketching, determining maxima and minima, and related rate problems.		
MATH 20804229	Math Analysis	5 Credits/Units
Mathematical Analysis is an integrated treatment of topics from college algebra and trigonometry 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 20804230	Calculus w Algebra & Trigonometry II	5 Credits/Units
This course continues the work begun in Calculus with Algebra and Trigonometry I. It is intended for students who need both extra knowledge of pre-calculus and also a first semester calculus course. The topics covered include exponential and logarithmic functions and their derivatives, inverse trigonometric functions and their derivatives, applications of derivatives, conic sections, and integration and its applications. This course, when preceded by its companion, Calculus with Algebra and Trigonometry I, is equivalent to taking both 804-229, Math Analysis and 804231, Calculus and Analytic Geometry I.		
MATH 20804231	Calculus and Analytic Geometry 1	5 Credits/Units
Calculus 1 is designed for students of mathematics, science, and engineering. This is 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.		
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, numerical approximation of definite integrals, applications of integration and an introduction to first order differential equations, analysis of infinite sequences and series, 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, graphs of quadratic surfaces.		
MATH 20804233	Calculus 3	5 Credits/Units

Calculus 3 is designed for students of mathematics, science, and engineering. Topics covered include differentiation of vectors, space curves and curvature, 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' and Stokes' Theorems, applications of vector calculus to geometry, mechanical work, fluid mechanics and electromagnetic fields, an introduction to the theory and solution of first and second order ordinary differential equations.

MATH 20804240 Basic Statistics 3 Credits/Units

In Basic Statistics 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. It emphasizes the inherent uncertainty when decisions are made on the basis of 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, an introduction to analysis of variance and selected nonparametric procedures.

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.

MATH 31804381 Machine Tool Math 1 2 Credits/Units

Open only for Machine Tool and Industrial Maintenance students. This course includes the study of machine tool problems involving calculations with fractions, decimals, and percentage. Includes work with the metric system, measurement conversion, geometry, trigonometry of right triangles, and use of a scientific calculator. Formulas with application to the trade are also studied.

MATH 31804382 Machine Tool Math 2 1 Credits/Units

This is a continuation of Machine Tool Math 1. Consists of advanced machine tool problems whose solutions involve right and oblique triangles. Compound angles and numerical control calculations are also studied.

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. Corequisites: 10-606-120 and 10-606-130.

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)	2 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. Corequisites: 10-606-100 and 10-606-130.		
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. In addition, students will be provided with relevant information that will enable them to investigate the career possibilities in the plastics industry.		
MECTEC 10606130	SolidWorks 1	2 Credits/Units
Introduces the students to the concepts commands of parametric solid modeling. Students create sketches and add relationships to the sketch segments, extrude the sketches to create models, add features such as fillets, cut extrude, chamfers, holes, draft, shell, lofts and sweeps. Emphasis is placed on the design intent of parametric solid models. In addition, students extract 2D documentation from the 3D models and add details to the drawings. Corequisite: 10-606-100 and 10-606-120, or permission from instructor.		
MECTEC 10606131	SolidWorks 2	2 Credits/Units
A continuation in the study of parametric design started in 10-606-130, SolidWorks 1. Topics covered in the course include: assemblies and BOM, the use of equations, part configurations and design tables, derived and molded parts, thin features and sheet metal, and the application of photoworks, edrawings, toolbox and 3D meeting. Prerequisite: 10-606-130, or permission from instructor.		
MECTEC 10606140	Dimensioning/GDT	3 Credits/Units
Mechanical drafting dimensioning fundamentals are developed including conventional tolerancing and basic hole and shaft tolerancing methods. The course continues with developing the technical knowledge and skills, which are required for meaningful application and interpretation of geometric dimensioning and tolerancing on mechanical drawings in accordance with the current ASME Y14.5M standard. Prerequisites: 10-606-100, 10-606-120 and 10-606-130.		
MECTEC 10606150	CAE Applications	2 Credits/Units
An introduction to how engineering and manufacturing utilize a parametric modeled file. Students follow parts through the product development cycle utilizing parametric design, computer aided manufacturing, stress analysis, computer simulation and rapid prototyping.		
MECTEC 10606152	PLC, Hydraulics, Pneumatics	2 Credits/Units

MEDTERM 31501308	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.		
MILLWRGT 50423561	Prnt Rdg/Math/Tools & Methods	2 Credits/Units
This course description is unavailable at this time. Please contact the center offering the course for more information.		
MILLWRGT 50423562	Prnt Rdg/Math/Mech Pwr Trans 1	2 Credits/Units
MILLWRGT 50423563	Prnt Rdg/Math/Mech Pwr Trans 2	2 Credits/Units
MILLWRGT 50423564	Print Reading/Math/Fluid Power	2 Credits/Units
This course description is unavailable at this time. Please contact the center offering the course for more information.		
MILLWRGT 50423565	Prnt Rdg/Math/Pipefit/Mech	2 Credits/Units
This course description is unavailable at this time. Please contact the center offering the course for more information.		
MILLWRGT 50423566	Print Reading/Math/Metalwork	2 Credits/Units
MILLWRGT 50423567	Print Reading/Math/Electrical	2 Credits/Units
This course description is unavailable at this time. Please contact the center offering the course for more information.		
MILLWRGT 50423568	Prnt Read/Math/Mach Repair	2 Credits/Units
This course description is unavailable at this time. Please contact the center offering the course for more information.		
MKTG 10104102	Marketing Principles	3 Credits/Units
This foundation course introduces students to the marketing process and how it operates in today's dynamic organizations. The entire marketing mix is examined on a broad scale. Topics include: market segmentation and targeting strategies, market research, consumer behavior, product development, pricing policies, distribution, and an overview of promotion. This basic course provides a comprehensive overview of the exciting world of marketing.		
MKTG 10104103	Marketing Research	3 Credits/Units
Businesses today need current, accurate information upon which to base their decisions. In this class, students learn not only how to gather marketing information from primary and secondary sources using online and other sources, but also how to apply that information to make better marketing decisions.		
MKTG 10104104	Selling Principles	3 Credits/Units
Introductory course designed to acquaint the student to the basic principles, concepts, and theories of business and consumer selling. Special emphasis is given to developing the selling process which includes prospecting and qualifying, planning and pre-approaching, approaching the customer, the sales presentation/demonstration, handling objections, closing the sale and post-sale service and follow-up. This course will also provide the learner with an opportunity to explore careers, opportunities, and benefits of personal selling		
MKTG 10104111	Innovative Trends in Marketing	3 Credits/Units
This course content changes from semester to semester and is based on the hottest and most important marketing trends and topics. Students will hear from industry leaders, explore cutting-edge theories and practices and have an opportunity to explore trends in which they have a particular interest.		
MKTG 10104112	Marketing Design Strategies	3 Credits/Units
This course provides participants with the opportunity to understand proven theories of marketing communication design principles and practices. Participants are challenged to create powerful marketing messages, by applying effective creativity and innovation techniques, for appropriate audiences using current and emerging technologies.		
MKTG 10104113	Leadership Ethics in the Digital Age	3 Credits/Units
The ability to influence people is critical to your personal and professional success. Today's marketers face rapid technological advancements in digital products and social media and its applications, which requires serious ethical considerations. This class will explore leadership principles, practices and contemporary ethical implications to develop the leader within you.		
MKTG 10104114	Social Media Principles	3 Credits/Units

Social Media has transformed Advertising from a long-term Mass medium to a one-to-one communication utilizing almost instant feedback. How businesses are using Social Media as advertising tools as well as how to create and deploy a Social Media Campaign will be the main focus of this class. Additionally, the history and development of Social Medias such as Facebook, YouTube, Twitter and LinkedIn will be explored as well as the many ethical and potential legal concerns that have arisen over these new forms of communication. Finally, the concept of Viral Marketing will be examined and how it allows a Social Message to explode a message to millions of users in a brief time.

MKTG 10104115 Capstone Campaign 3 Credits/Units
 Creating a full real-world advertising campaign for a local business is the core of this final capstone class. Students will discover needs, conceptualize, creating and deploying a multi-media advertising campaign using both digital/social media channels, as well as traditional mass media channels. Emphasis on individual work as well as a written group campaign proposal (presented to client) will be part of this final project. Outside class time will be needed.
 Students will work toward a certification in a current social media platform.

MKTG 10104125 Principles of Advertising 3 Credits/Units
 Students are introduced to the theory and practice of integrated marketing communications. All elements in the promotions mix are summarized but the major emphasis is on advertising. Students examine the characteristics of major media alternatives including radio, television, newspapers, magazines, outdoor, direct response and alternative media. Advertising research, planning and creativity are also explored and practiced.

MKTG 10104126 Public Relations 3 Credits/Units
 This course will focus on Public Relations fundamentals necessary for Integrated Marketing Communications. Various forms and styles of PR tools will be covered including Press Releases (traditional and social media press releases) Digital Media and Web PR, Press Kits and Press Rooms, Reputation Management, Crisis Communication, Cause Related Marketing, and Sponsorship.

MKTG 10104160 Sales Management 3 Credits/Units
 The role of the Manager in the Sales process is explored in this advanced sales class. Creating a sales program, developing your sales force, motivating sales people, and developing companies to be more selling focused will all be explored through research, case studies, practical applications and projects. Sales skills will be enhanced though the role of a strong Sales Manager.

MKTG 10104162 Mobile Marketing (Social Media) 3 Credits/Units
 Mobile internet usage continues to explode and it has been predicted that it will overtake desktop internet usage in the next five years. Successful businesses need to understand the current mobile landscape and how to harness the power of mobile marketing to reach key target markets. This survey course will examine how mobile marketing fits into your overall digital and social media strategy. We will investigate geo-marketing, localized marketing, designing for mobile media, mobile websites, mobile advertising, m-commerce and mobile spending, SMS and mobile apps. Students will develop a creative mobile marketing campaign that integrates with a traditional marketing plan.

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
 Students are assisted in selecting a supervised work experience related to a specific area of marketing. A team consisting of the employer, the student intern and MATC instructor/advisor work together to plan the objectives of the work experience as well as evaluate the intern's performance. Available to Marketing program students only. Prior to taking this course, students must complete two full semesters of Marketing program coursework and an overall GPA of 2.0 or higher.

MKTG 10104169 Internet Marketing 3 Credits/Units
 This introductory course is designed to acquaint students to the basic foundations of internet marketing as part of the marketing communication mix. Emphasis areas include inbound marketing, relevant content development, SEO (Search engine optimization), SEM, Google AdWords, simple dashboard Google Analytics, PPC, web content analysis and webvertising options.

MKTG 10104180 International Marketing 3 Credits/Units
 Students explores how marketing strategies and tactics must be managed and adapted for success in different cultural, economic, geographic and political environments around the world. Students will develop marketing and management skills and perspectives in order to work effectively in the global marketplace.

MKTG 10104187 Global Studies Seminar 3 Credits/Units

This unique learning and travel experience gives students the opportunity to enhance their understanding of the global marketplace. Upon completion of the course and travel students will be familiar with the history, culture, social and business issues of the host country. Students will examine current trends and business practices relating to (but not limited to) management, marketing, hospitality and global strategies. Participation in this course requires travel to the host country. This experience is designed to help students develop a lifelong global mindset and to enhance abilities to communicate, work on international teams and think creatively.

MKTG 10104188 Marketing Portfolio 1 Credits/Units
 E-portfolios are essential for today's job hunting marketplace. This course will help you to organize the marketing projects you have worked on throughout the program into an e-portfolio format. Additionally you will add other collateral materials to your portfolio including a resume that includes e-screening words for marketing, professional reference page and cover letter, and e-tabs within your portfolio. Your project collection on a thumb drive or your student drive will assist you with your portfolio preparation. Must be taken in final semester of Marketing program or by obtaining Consent of Instructor.

MKTG 10104802 Honors - Marketing 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 1 – 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.

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 assemblies 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.

MUSIC 20805205 Class Voice 1 1 Credits/Units
 Class Voice 1 is a fundamental course in singing which includes principles of voice production, correct breathing, tone placement, resonance, articulation and song interpretation. Open to all college students.

MUSIC 20805206 Class Voice 2 1 Credits/Units
 Class Voice 2 is a continuation course in fundamentals of singing which includes principles of voice production, correct breathing, tone placement, resonance, articulation and song interpretation. Open to all college students. No auditions.

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 20805209 **Swing Choir** **2 Credits/Units**
 Vocal Jazz Ensemble is a small performing vocal ensemble that includes both pop choral music and music for a vocal jazz ensemble. Some musical selections are choreographed, but formal dance ability is not required. Prerequisite: concurrent enrollment in MATC Chorale and consent of the instructor.

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 20805232 **International Arts Intensive-Music** **3 Credits/Units**
 Provides a unique immersion in which participants will study the interdisciplinary nature of the arts. Students will travel to an international arts center to explore the connections that exist among the disciplines of music, theater, and visual art. Historical, geographical, and cultural perspectives will be examined to enhance understanding of live performance experiences in both theater and music. Based on site-specific study, students will apply aesthetic values to the description of music and theater styles.

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 20805261 **Music Theory 1** **3 Credits/Units**
 Through a study of melodic and harmonic compositional language, students will analyze and compose music in the style of the common practice period. Students complete a final composition project exhibiting principles of voice leading. Requires literacy in Western musical notation, understanding of keys, and major and minor scales. Students must also register for Aural Skills 1 (20805267).

MUSIC 20805262 **Music Theory 2** **3 Credits/Units**
 This course further develops the content of Music Theory 1 by expanding diatonic harmonic structures to include seventh chords and non-diatonic harmonies. Students will analyze music featuring tonal modulation. Students will also analyze musical forms employing both micro- and macro-level terminology. Theoretical skills will be applied to practical keyboard exercises. Completion of a final composition project in homophonic texture and in the prevailing style of the common practice period is required.

MUSIC 20805263 **Jazz History** **3 Credits/Units**
 This course provides an introductory survey of major jazz performers, styles, and compositions in the 20th and 21st centuries. Students will examine musical developments in the genre of jazz as they relate to major historical events, social movements, and cultural trends in the United States. Students will examine historical recordings to develop listening skills and distinguish specific characteristics among a variety of jazz styles. Attendance at two live performances separate from regular class meetings is required.

MUSIC 20805267 **Aural Skills 1** **1 Credits/Units**
 Students will apply music reading and analytical skills learned in co-requisite Music Theory 1 to the performance and transcription of rhythm, melody and harmony. Students will sing simple melodies and rhythms alone and in ensemble, sing harmonies in ensemble, and notate comparable melodies, rhythms and harmonic progressions through aural recognition. Co-requisite: 20-805-261.

MUSIC 20805268 **Aural Skills 2** **1 Credits/Units**
 Students will apply music reading and analytical skills learned in co-requisite Music Theory 2 to the performance and transcription of rhythm, melody and harmony. Students will sing intermediate tonal melodies and perform multi-part rhythms alone and in ensemble, sing harmonies in ensemble, and notate comparable melodies, rhythms and harmonic progressions through aural recognition.

MUSIC 20805270 **Madison College Chorale** **1 Credits/Units**
 Madison College Chorale is a chorus of mixed voices open to those who enjoy singing—all college students, staff, faculty and general public. It focuses on music of diverse cultures and times. MATC Chorale provides an opportunity to participate in learning and performing choral music.

MUSIC 20805271 **Madison College Chorale 2** **1 Credits/Units**
 Madison College Chorale 2 is a continuation of choral group for mixed voices open to those who enjoy singing—all college students, staff, faculty and general public. It focuses on music of diverse cultures and times. Madison College Chorale 2 provides an opportunity to participate in learning and performing choral music. No auditions.

MUSIC 20805272 **Madrigal Choir** **1 Credits/Units**
 Madrigal Choir is a small vocal ensemble that sings and performs choral repertoire from madrigals and other choral literature. Corequisite: enrollment in MATC Chorale.

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.

NRSAD 10543101 **Nursing Fundamentals - Associate Degree Nursing Program** **2 Credits/Units**
 This course focuses on basic nursing concepts that the beginning nurse will need to provide care to diverse patient populations. 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 with alterations in cognition, elimination, comfort, grief/loss, mobility, integument, and fluid/electrolyte balance.

NRSAD 10543102 **Nursing Skills - Associate Degree Nursing Program** **3 Credits/Units**
 This course focuses on development of clinical skills and physical assessment across the lifespan. Content includes mathematic calculations and conversions related to clinical skills, blood pressure assessment, aseptic technique, wound care, oxygen administration, tracheostomy care, suctioning, management of enteral tubes, basic medication administration, glucose testing, enemas, ostomy care, and catheterization. In addition, the course includes techniques related to obtaining a health history and basic physical assessment skills using a body systems approach.

NRSAD 10543103 **Nursing Pharmacology - Associate Degree 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.

NRSAD 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. Emphasis is placed on performing basic nursing skills, the formation of nurse-client relationships, communication, data collection, documentation, and medication administration.

NRSAD 10543105 **Nursing Health Alterations - Associate Degree 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 clients through the lifespan, utilizing problem solving and critical thinking. This course will provide an opportunity to study conditions affecting different body systems and apply therapeutic nursing interventions. It will also introduce concepts of leadership, team building and scope of practice.

NRSAD 10543106 **Nursing Health Promotion - Associate Degree Nursing Program** **3 Credits/Units**
 This course will cover topics related to health promotion in the context of the family. We will cover nursing care of the developing family, which includes reproductive issues, pregnancy, labor and delivery, post-partum, the newborn, and the child. Recognizing the spectrum of healthy families we will discern patterns associated with adaptive and maladaptive behaviors applying mental health principles. An emphasis is placed on teaching and supporting healthy lifestyle choices. 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 10543107	Nursing: Clinical Care Across Lifespan	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.		
NRSAD 10543108	Nursing: Introduction to Clinical Care Management	2 Credits/Units
This clinical experience applies nursing concepts and therapeutic nursing interventions to groups of clients. It also provides an introduction to leadership, management and team building.		
NRSAD 10543109	Nursing: Complex Health Alterations 1	3 Credits/Units
This class prepares the learner to expand knowledge from previous courses in caring for clients with alterations in musculoskeletal, cardiovascular, respiratory, endocrine, and hematologic systems as well as clients with fluid/electrolyte and acid-base imbalance, and alterations in comfort.		
NRSAD 10543110	Nursing: Mental Health Community Concepts	2 Credits/Units
This class will cover topics related to the delivery of community and mental health care. Specific health needs of individuals, families and groups will be addressed. 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.		
NRSAD 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 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.		
NRSAD 10543112	Nursing Advanced Skills	1 Credits/Units
This course focuses on the development of advanced clinical skills. Content includes advanced IV skills, blood product administration, chest tube systems, basic EKG interpretation and nasogastric/feeding tube insertion.		
NRSAD 10543113	Nursing: Complex Health Alterations 2	3 Credits/Units
This course prepares the learner to expand knowledge and skills from previous courses in caring for clients with alterations in the immune, neuro-sensory, musculoskeletal, gastrointestinal, hepatobiliary, renal/urinary and the reproductive systems. The learner will also focus on management of care for clients with high risk perinatal conditions, high risk newborns and the ill child. Synthesis and application of previously learned concepts will be evident in the management of clients with critical/life threatening situations.		
NRSAD 10543114	Nursing: Management and Professional Concepts	2 Credits/Units
This advanced clinical course covers nursing management and professional issues related to the role of the RN. Emphasis is placed on preparing for the RN practice.		
NRSAD 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 opportunity to further develop critical thinking skills using the nursing process in making clinical decisions. Continuity of care through interdisciplinary collaboration is emphasized.		
NRSAD 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 working collaboratively with others to achieve client and organizational outcomes.		
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.		
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 10543291 Community Cultural Health Care 3 Credits/Units

This theory and clinical course promotes an understanding of diverse cultures by looking at cultures and healthcare systems through classroom activity and a supervised field experience within a host country. The field experience host country will expose students to health issues, needs, services and systems within the host country. Students will have opportunities to prepare and present health education, provide health care and share in the history and epidemiology of the identified host country. This course requires students to participate in a "Global Studies Clinical" held when the host country is approved.

NRSAD 30543300 Nursing Assistant 3 Credits/Units

Prepares students for employment as nursing assistants. Students learn communication skills, basic nursing and 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. Enrollment Requirements: Must be 16+ years old, have completed Background Check, Health Screening and Reading Requirements.

NRSAD 31543301 Nursing Fundamentals - Practical Nursing Program 2 Credits/Units

This course focuses on basic nursing concepts that the beginning nurse will need to provide care to diverse patient populations. 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 with alterations in cognition, elimination, comfort, grief/loss, mobility, integument, and fluid/electrolyte balance.

NRSAD 31543302 Nursing Skills - Practical Nursing Program 3 Credits/Units

This course focuses on development of clinical skills and physical assessment across the lifespan. Content includes mathematic calculations and conversions related to clinical skills, blood pressure assessment, aseptic technique, wound care, oxygen administration, tracheostomy care, suctioning, management of enteral tubes, basic medication administration, glucose testing, enemas, ostomy care, and catheterization. In addition the course includes techniques related to obtaining a health history and basic physical assessment skills using a body systems approach.

NRSAD 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.

NRSAD 31543304 Nursing: Intro to 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. Emphasis is placed on performing basic nursing skills, the formation of nurse-client relationships, communication, data collection, documentation, and medication administration.

NRSAD 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 clients through the lifespan, utilizing problems solving and critical thinking. This course will provide an opportunity to study conditions affecting different body systems and apply therapeutic nursing interventions. It will also introduce concepts of leadership, team building, and scope of practice.

NRSAD 31543306 Nursing Health Promotion - Practical Nursing Program 3 Credits/Units

This course will cover topics related to health promotion in the context of the family. We will cover nursing care of the developing family, which includes reproductive issues, pregnancy, labor and delivery, post-partum, the newborn, and the child. Recognizing the spectrum of healthy families we will discern patterns associated with adaptive and maladaptive behaviors applying mental health principles. An emphasis is placed on teaching and supporting healthy lifestyle choices. 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 31543307 Nursing: Clinical Care Across the Lifespan 2 Credits/Units

Students participate 40 hours per week for six weeks of assigned clinical experience in an optometric or clinic setting. The student is expected to achieve specific educational objectives determined for this experience. Prerequisite: satisfactory completion of all first-semester courses plus enrollment in second-semester courses.

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	Ot Fw:Specialty	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 10514177	Assistive Technology and Adaptations	2 Credits/Units
Explores technologies that support delivery of OT services. Emphasis on competency related to computer skills, ergonomics, adaptive devices, and environments. Prerequisites: 10-514-174, 10-514-175, 10-514-176, 10-514-178. Co-requisites: 10-514-179, 10-514-182, 10-514-183, 10-514-184.		
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 10514182	Physical Rehabilitation Practice	3 Credits/Units
Explores interventions relative to major physical disability diagnoses seen in OT practice. Evaluation, treatment interventions, and documentation are emphasized relative to the biomechanical, neurodevelopmental and rehabilitative approaches to practice. Prerequisites: 10-514-174, 10-514-175, 10-514-176, 10-514-178. Co-requisites: 10-514-177, 10-514-179, 10-514-183, 10-514-184.		
OTASST 10514183	Pediatric Practice	3 Credits/Units
Explores interventions relative to major pediatric diagnoses seen in OT practice. Evaluation, treatment interventions, and documentation are emphasized within the context of the child's occupations. Prerequisites: 10-514-174, 10-514-175, 10-514-176, 10-514-178. Co-requisites: 10-514-177, 10-514-179, 10-514-182, 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. Prerequisites: 10-514-174, 10-514-175, 10-514-176, 10-514-178. Co-requisites: 10-514-177, 10-514-179, 10-514-182, 10-514-183		
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. Prerequisites: 10-514-177, 10-514-179, 10-514-182, 10-514-183, 10-514-184. Co-requisites: 10-514-185, 10-514-187.		
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 2A. Prerequisites: 10-514-177, 10-514-179, 10-514-182, 10-514-183, 10-514-184.		
PAINTDEC 50424590	Tech Paint Sem 1	2 Credits/Units
This course description is unavailable at this time. Please contact the center offering the course for more information.		
PAINTDEC 50424591	Tech Paint Sem 2	2 Credits/Units
This course description is unavailable at this time. Please contact the center offering the course for more information.		
PAINTDEC 50424592	Tech Paint Sem 3	2 Credits/Units
This course description is unavailable at this time. Please contact the center offering the course for more information.		
PAINTDEC 50424593	Tech Paint Sem 4	2 Credits/Units
This course description is unavailable at this time. Please contact the center offering the course for more information.		
PAINTDEC 50424594	Tech Paint Sem 5	2 Credits/Units
This course description is unavailable at this time. Please contact the center offering the course for more information.		
PAINTDEC 50424595	Tech Paint Sem 6	2 Credits/Units
This course description is unavailable at this time. Please contact the center offering the course for more information.		
PARALEG 10110101	Introduction to Paralegalism and Legal Ethics	3 Credits/Units
Provides students with an introduction to the paralegal profession, the American legal system, legal ethics, legal terminology, research, and the common law of torts.		
PARALEG 10110102	Civil Litigation I	3 Credits/Units
Outlines the initial stages of civil litigation, including initial client contact, investigation, pleadings and motions.		
PARALEG 10110103	Civil Litigation 2	3 Credits/Units
Covers the civil litigation procedure during discovery, trial, and appeal.		
PARALEG 10110104	Legal Research	3 Credits/Units
Provides students with an application of legal research techniques, using traditional and computer-assisted resources. Involves extensive hands-on legal research exercises and document preparation exercises.		
PARALEG 10110105	Legal Writing	3 Credits/Units
Concentrates on the skills required for legal writing and analysis.		
PARALEG 10110106	Family Law	3 Credits/Units
Family Law covers the basic legal concepts in the area of family relations, particularly divorce.		
PARALEG 10110107	Legal Aspects of Business Organizations	3 Credits/Units
Acquaints students 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	2 Credits/Units
This course provides an introduction to litigation software programs which are being used in law offices, corporations, and government law departments nationwide. Two main types of software are used for instruction: (1) case management software which is used to organize various aspects of a lawsuit including events, parties, witnesses, issues, and research; and (2) E-Discovery software utilized for document review and coding. Hypothetical litigation scenarios will be used to simulate actual pretrial E-Discovery exercises.		
PARALEG 10110110	Real Estate Law - Paralegal	3 Credits/Units
Includes drafting real estate descriptions, listing contracts, offers to purchase, deeds, land contracts, mortgages, foreclosure pleadings, transfer tax returns, and leases.		
PARALEG 10110114	Administration Of Estates - Paralegal Program	3 Credits/Units

Basic legal concepts surrounding powers of attorney, wills, trusts, and intestacy, including probate forms and procedures as well as inheritance tax returns are covered in the Administration of Estates class.

PARALEG 10110115	Administrative Law	3 Credits/Units
Administrative Law is designed to acquaint students with 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 10110116	Elder Law: Healthcare, Public Benefits and the Administrative Law Process	1 Credits/Units
Gain familiarity in this growing area of elder law! This course will provide an overview of healthcare and public benefits available to older adults. Students will examine Medicare, Medicaid, and Social Security policies regarding eligibility for benefits, denials, overpayments, and appeals. Administrative code provisions, benefit manuals, and federal and state statutes will be analyzed as students prepare an argument and exhibits for an administrative law hearing.		
PARALEG 10110119	Advanced Family Law	1 Credits/Units
This course provides practical knowledge in advanced family law matters. It covers the final stages of divorce, post-judgment matters, collecting evidence for trial, and non-traditional families under the law.		
PARALEG 10110120	Guardianships & the Protective Services System	1 Credits/Units
This course will walk students through the process of evaluating client capacity, the statutory requirements and procedures for filing a guardianship action, and the related protective services system. Students will draft pleadings, court orders, and letters to clients. A variety of client situations will be discussed and analyzed with regard to legal ethics and alternatives to guardianships.		
PARALEG 10110122	Debtor & Creditor Relations	3 Credits/Units
Considers pre and post-judgment collection rights, creditor protection devices, State and Federal consumer protection laws, and Federal bankruptcy laws.		
PARALEG 10110140	Word and Excel for Legal Professionals	1 Credits/Units
This course provides a more advanced look at the application of Microsoft Word and Excel to a functioning law office. Microsoft Word and Excel are powerful and underutilized programs in most law offices. These applications will be explored to uncover the features most applicable to law offices and paralegals in their daily tasks. A basic understanding of computers, word processing, Word, and Excel are expected prior to taking the course.		
PARALEG 10110141	Computer Applications - Legal	3 Credits/Units
Students develop technology skills using various law office computer applications.		
PARALEG 10110142	Paralegal 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 10110160	Employment Law - Paralegal	3 Credits/Units
Employment Law covers the analysis of federal and state laws governing employment relationships, job discrimination, sexual harassment, workplace privacy, labor standards, and human resource management.		
PARALEG 10110168	Criminal Law 1 - Paralegal	3 Credits/Units
Provides an introduction 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 10110169	Criminal Law 2	3 Credits/Units
This course builds on the foundation developed in Criminal Law 1, requiring students to apply previously learned 4th, 5th, and 6th Amendment and other constitutional law principles to the unique facts of three mock trial cases. Heavy emphasis is placed upon generating "real world work product" tied to trial preparation, with particular focus on trial-related discovery issues and motion practice. Ethical and effective witness interviewing techniques/practices and settlement preparation are also covered.		
PARALEG 10110170	Intellectual Property Law	3 Credits/Units
This course introduces paralegal students to the law of trademarks, copyrights, and patents. It covers the basic requirements for protecting these forms of intellectual property; identifies the sources of authority that govern intellectual property law; explains the types of rights in intellectual property that are available; introduces the concepts of infringement and defenses to infringement claims; and surveys of the types of remedies used to compensate an owner for infringement.		
PARALEG 10110171	Law & Contemporary Problems	3 Credits/Units
This 3 credit legal specialty course addresses topic areas of current interest in the legal community and will vary by semester.		
PARALEG 10110172	Environmental Law - Paralegal	3 Credits/Units

This course introduces the student to the study of environmental law with emphasis on the role of the paralegal in this field. It surveys major environmental acts in the United States, such as the Clean Air Act, Clean Water Act, and other legislation. The course also presents an overview of the treatment of issues concerning the environment from a legal perspective.

PARALEG 10110173 Contract Law in a Global Economy 3 Credits/Units

This survey course explores the common law of contracts, contracts of sale under Article 2 of the UCC, and the legal issues and risks that affect business transactions in the global marketplace.

PARALEG 10110175 Orientation to the Paralegal Profession 1 Credits/Units

This course will (i) introduce students to the paralegal profession; (ii) acquaint students with the classes offered in the paralegal program; (iii) provide students with tools for success in the paralegal program and the paralegal career field; (iv) administer the required paralegal program entrance keyboarding test; and (v) advise and enroll students in their fall semester courses.

PARALEG 10110176 Career Building Techniques - Paralegal 2 Credits/Units

This course will focus on internship and career strategies; effective portfolios, resumes and cover letter; the internship experience; interview techniques; finding an internship site including sites for students interested in receiving the Program's International Certificate; job hunting resources and alternative career paths; strategies for success in the work place; and advancing in your career; and getting your next job.

PHILOS 10809166 Intro to Ethics: Theory & App 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 20809258 Philosophy Through Film 3 Credits/Units

This course is a general introduction to philosophy for students who may or may not be interested in taking any further philosophy classes. It will use the uniquely vivid and compelling medium of film to introduce students to important philosophical questions about such things as personal identity, consciousness, ethics and morality, freewill and determinism, the limits of knowledge, time travel, and the possibility of intelligent machines. Readings that explore the topics introduced through the assigned films will be drawn from a range of authors from both Western and non-Western philosophical traditions. Students' ability to think critically and creatively will be developed through the exploration of proposed answers to various philosophical questions with an emphasis on how to evaluate the reasons given in support of and in opposition to proposed answers.

PHILOS 20809259 Classics in Philosophy 3 Credits/Units

This course examines influential Ancient Greek classical texts of philosophy (in translation) by such writers as Plato, Aristotle, and the Hellenistic philosophers. Examples of the texts are: Plato's Republic, Aristotle's Nicomachean Ethics, and Marcus Aurelius' Meditations. Learners will be introduced to a range of important ideas, arguments, and theories advanced by these philosophers. The emphasis of the course will be on a close, critical reading of a few texts resulting in interpreting, understanding, analyzing, and crucially evaluating the various ideas, arguments, and theories that arise from the text.

PHILOS 20809260 Intro Philosophy 3 Credits/Units

This course introduces various fields of philosophy, philosophical methodology and the history of philosophy. Examines some philosophical issues in depth and develops the ability to think, speak and write critically about these problems that have concerned human beings for centuries.

PHILOS 20809261 Elementary Logic 4 Credits/Units

A course in contemporary formal (symbolic) logic covering both propositional and predicate logic with identity. Students will learn to translate arguments into symbolic notation and then test validity using natural-deduction proof procedures, truth tables, truth trees, and counter examples. Fulfills the Quantitative Reasoning Part B requirement at UW-Madison, as well as the logic requirement at Edgewood College. Assumes a solid background in Algebra.

For a course focused on critical thinking and informal logic, see course #20809264, Introduction to Logic and Critical Thinking (previously called Reason in Communication), which fulfills the Quantitative Reasoning Part A requirement at UW-Madison as well as the logic requirement at Edgewood College.

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 - Liberal Arts Transfer 3 Credits/Units

East/West Worldviews examines worldviews and their underlying assumptions. Worldviews are sometimes rooted in philosophy, religion and myth, each characterized by its rituals and symbols. The course focuses on the religions originating in India (Hinduism and Buddhism); in East Asia (Confucianism, Taoism, Shintoism, Zen Buddhism); and in the Middle East (Judaism, Christianity, Islam). Also includes Western rationalism and the scientific view of the cosmos. 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 20809268 Social Ethics 3 Credits/Units
 An introduction to major historical and contemporary philosophical theories about society and the prerequisites of an ethical human culture. 'Culture' includes those qualities that we tend to take for granted, such as fairness and justice, autonomy and dignity, equality and opportunity. The philosophical nature of legitimacy and limits on power and domination in a liberal society are discussed and include readings from Hobbes, Locke, Rousseau, Mill, Rawls, Nozick, Marx and Walzer. While contemporary arguments, both good and bad, about what kind of society America should be surround us daily, a discussion of the philosophical justification for such arguments is a meaningful way of understanding the competing claims about social justice.

PHILOS 20809276 Business Ethics 3 Credits/Units
 Most of us will spend a large portion of our lives immersed in the world of work. As employees and/or employers, we face decisions everyday that depend on fundamental moral assumptions about honesty, fairness, liberty and privacy. We are all likely to have different ideas about what these concepts mean, or ought to mean, and justify our actions accordingly. This course aims to help us evaluate the moral choices we make in a business setting, and to that end philosophers employ the use of argument. By careful use of argument we will critically assess not only moral choices in the workplace, but also the moral assumptions that underlie capitalism, the economic system under which most people in the world are working. The issues that arise in business affect us all in critical ways. Whether we are debating the merits of affirmative action in hiring, corporate responsibility and profits, terms of employment, conflicts of interest or whistleblowing, this course will examine our assumptions and help us reach a clearer understanding of what we ought to do and why.

PHOTO 10203105 Photo Composition 2 Credits/Units
 A survey of composition as 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 Studio Photography 1 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 2 3 Credits/Units
 Continuation of Studio Photography 1 with emphasis on advanced studio strobe lighting techniques, and 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 10203109 Studio Photography 3 3 Credits/Units
 This is an advanced level studio course offering students the opportunity to hone their skills. The course consists of 3 projects created by the instructor and 3 created by the student. Student may choose to create images that express their individual areas of interest. Images that are created in this course may be used in final portfolios.

PHOTO 10203120 Lighting Technique 2 Credits/Units

PHYED 20807252	Beginning Pilates	1 Credits/Units
This course will cover the principles and practice of the Pilates method of conditioning. It will emphasize core muscle function to develop optimal muscle tone and integrated, fluid body movement. Beginning and some intermediate Pilates mat exercises will be practiced.		
PHYED 20807254	Beginning Yoga	1 Credits/Units
This course introduces the practice of yoga. It explores the philosophy that underlies yoga as a means of stress management, fitness and conditioning. Designed for beginners, the course teaches gentle movements, yoga poses, breathing techniques and meditations that relax both the mind and the body.		
PHYED 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.		
PHYED 20807260	Martial Arts Fundamentals	1 Credits/Units
This course will practice footwork, blocks, strikes, kicks and martial art forms. Class will focus on development and improvement of stable mobility, dynamic balance, agility and fluid movement in dynamic postures. Emphasis will be on efficient, articulate and integrated movement fundamental to martial art skill development. Movement and forms will be progressive but also adaptable to a variety of goals and abilities.		
PHYED 20807264	Intermediate Yoga	1 Credits/Units
Enhances the practice of yoga. Continues the exploration and the philosophy that underlies yoga as a means of stress management, fitness and conditioning. Designed for intermediate participants, the course covers yoga poses, breathing techniques and meditations that relax both the mind and the body.		
PHYED 20807266	Wellness Today	2 Credits/Units
Wellness Today is a contemporary approach to the total wellness concept. It covers fitness and exercise, nutrition and stress management, culminating with personal planning toward lifetime wellness		
PHYED 20807267	Health & Fitness for Life	1 Credits/Units
A contemporary approach to the total wellness concept. It covers fitness, nutrition and stress management, culminating with personal planning toward lifetime wellness.		
PHYED 20807268	Blueprint for Healthy Living	2 Credits/Units
Relax and practice manageable steps towards a healthier life during an offsite retreat in this class. Learn to incorporate balanced nutrition, stress management, yoga, meditation and more into your lifestyle. Then, travel to an offsite location and stay for three days and two nights immersed in a positive wellness environment with others.?		
PHYED 20807271	Bicycle Conditioning	1 Credits/Units
Provides the opportunity for the learner to develop the knowledge skills process and understanding of cardiovascular endurance and fitness through short lectures and physical conditioning on stationary fixed-gear "spinning" bikes with music as a motivator.		
PHYED 20807289	Aerobics/Weight Training	1 Credits/Units
This course provides the opportunity for the learner to develop the knowledge skills process and understanding of exercise through short lectures and a variety of physical activities to enhance personal fitness. The course involves participation in individual and group exercise activities in the fitness center and in the gym. The course also covers basic information about diet, nutrition, and weight.		
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 10806143	College Physics 1	3 Credits/Units
This course presents the applications and theory of basic physics principles. This course emphasizes problem solving, laboratory investigation and applications. Topics include laboratory safety, unit conversions and analysis, kinetic, dynamics, work, energy, power, temperature and heat.		
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. The 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 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.		
PHYSICS 20806291	Introduction to Renewable Energy	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 31806363	Science 1	2 Credits/Units
Science 1 covers basic principles of physics that have frequent and common practical applications for students pursuing vocations in trade and industry. This course relates applications to student vocational fields. Includes measurement, mechanics, machines, properties of matter, fluid principles, heat and electricity. Features lecture, discussion and laboratory.		
PLASTIC 50463501	Industrial Math 1	0 Credits/Units
This course description is unavailable at this time. Please contact the center offering the course for more information.		
PLASTIC 50463502	Industrial Math 2	0 Credits/Units
This course description is unavailable at this time. Please contact the center offering the course for more information.		
PLASTIC 50463503	Industrial Math 3	0 Credits/Units
This course description is unavailable at this time. Please contact the center offering the course for more information.		
PLASTIC 50463504	Industrial Math 4	0 Credits/Units
This course description is unavailable at this time. Please contact the center offering the course for more information.		
PLASTIC 50463507	Inj Mold Processes 1/Schemat 1	1 Credits/Units
This course description is unavailable at this time. Please contact the center offering the course for more information.		
PLASTIC 50463508	Inj Mold Processes 2/Schememat 2	1 Credits/Units
This course description is unavailable at this time. Please contact the center offering the course for more information.		
PLASTIC 50463509	Inj Mold Processes 3 And Spc 1	1 Credits/Units
This course description is unavailable at this time. Please contact the center offering the course for more information.		
PLASTIC 50463510	Inj Mold Process 4 And Spc 2	1 Credits/Units

This course description is unavailable at this time. Please contact the center offering the course for more information.

PLASTIC 50463517 Basic Machining Practices 1 1 Credits/Units

PLASTIC 50463518 Basic Machining Practices 2 1 Credits/Units

PLASTIC 50463519 Fluid Power 1 0 Credits/Units

PLASTIC 50463520 Fluid Power 2 0 Credits/Units

PLASTIC 50463521 Electricity/Electronics 1 0 Credits/Units

PLASTIC 50463522 Electricity/Electronics 2 0 Credits/Units

PLASTIC 50463523 Thermoset/Mold Prac 1 & Insp 1 1 Credits/Units

PLASTIC 50463524 Thermoset/& Mold Prac 2 & Insp 2 1 Credits/Units

PLUMBNG 50427550 Trade Plumbing Semester 1 2 Credits/Units

This course description is unavailable at this time. Please contact the center offering the course for more information.

PLUMBNG 50427551 Trade Plumbing Semester 2 2 Credits/Units

This course description is unavailable at this time. Please contact the center offering the course for more information.

PLUMBNG 50427552 Trade Plumbing Semester 3 2 Credits/Units

This course description is unavailable at this time. Please contact the center offering the course for more information.

PLUMBNG 50427553 Trade Plumbing Semester 4 2 Credits/Units

This course description is unavailable at this time. Please contact the center offering the course for more information.

PLUMBNG 50427554 Trade Plumbing Semester 5 2 Credits/Units

This course description is unavailable at this time. Please contact the center offering the course for more information.

PLUMBNG 50427555 Trade Plumbing Semester 6 2 Credits/Units

This course description is unavailable at this time. Please contact the center offering the course for more information.

PLUMBNG 50427556 Trade Plumbing Semester 7 2 Credits/Units

This course description is unavailable at this time. Please contact the center offering the course for more information.

PLUMBNG 50427557 Trade Plumbing Semester 8 2 Credits/Units

This course description is unavailable at this time. Please contact the center offering the course for more information.

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 Intro to Amer Government 3 Credits/Units
 Introduction to American Government focuses on the structure and functioning of state and local governments within the context of federalism. It emphasizes decision making, structure, theory, behavioral characteristics and citizen participation.

POLISCI 20809218 Law and Society 3 Credits/Units
 Law and Society deals with the nature of law and legal processes as instruments of social control. Students are introduced to legal structures and processes, and examine the philosophy of law within political, social and economic frameworks.

POLISCI 20809220 American Foreign Policy 3 Credits/Units
 American Foreign Policy addresses conduct of the U.S. as an international actor. It covers problems, challenges and persistent patterns in American policy since the close of World War II. How foreign policy is made is included and attention is given to the interactions of individuals, groups, roles and organizations.

POLISCI 20809221 American Ntl Govt 3 Credits/Units
 American National Government utilizes a systems approach to emphasize the relationships between structure and behavior. Political theory and methodology are stressed. Students are encouraged to improve research and analytical skills. The course includes the U.S. Constitution, elections, interest groups, parties, mass media, congress, judiciary, the presidency and bureaucracy.

POLISCI 20809222 State and Local Government 3 Credits/Units
 State and Local Government addresses the functioning of state and local governments and relates them and their activities to the federal government. Behavioral characteristics of state and local governments in the total decision-making process are stressed. Discussion covers the importance and functioning of political parties, special interest groups, elections, legislatures, courts and executives.

POLISCI 20809223 International Relations 3 Credits/Units
 International Relations covers methods employed by nation-states in interacting with each other and the forces influencing the nature of interaction. Includes institutions that have been erected in nation-states' quest for power, peace and security. It emphasizes nationalism, ideology, regional integration and trade.

POLISCI 20809227 Political Theory 3 Credits/Units
 Political Theory is a subcategory within the broader social science discipline of Political Science. This course examines core political thinkers, concepts, and ideologies necessary to study and understand various political phenomena and critical interactions. This course presents fundamental knowledge and basic skill / ability training to research and discuss important political phenomena.

POLISCI 20809242 Public Policy 3 Credits/Units
 This course examines the public policy process in the United States through the analysis of key policy concepts, theories, and analytical models (e.g., policy analysis and policy evaluation). The goal of this course introduce student to various areas (e.g., criminal justice, health/human services) to develop students' analytical understanding of the policy process and communication/critical thinking skills.

POLISCI 20809243 Comparative Politics 3 Credits/Units

This course teaches students how to use comparative methodology to analyze and evaluate various political institutions. Students enrolled in this course will (a) use "most-similar" and "most-different" approaches to study political phenomena within a global context and (b) develop "core abilities" such as critical thinking abilities and communication skills.

POLISCI 20809244 Russian Politics 3 Credits/Units

This undergraduate course advances student knowledge, understanding, and appreciation of the Russian political system using a multidisciplinary approach. In this course students use "worlds systems theory" and "comparative methodology" to (a) "review" relevant political system history, (b) "summarize" important informal & informal institutions, (c) "analyze" critical political system variables, and (d) "evaluate" political system variables within a globalizing international environment.

POLISCI 20809245 Latin American Politics 3 Credits/Units

This undergraduate course advances student knowledge, understanding, and appreciation of the Latin American political system using a multidisciplinary approach. In this course students use "worlds systems theory" and "comparative methodology" to (a) "review" relevant political system history, (b) "summarize" important informal & informal institutions, (c) "analyze" critical political system variables, and (d) "evaluate" political system variables within a globalizing international environment.

POLISCI 20809246 African Politics 3 Credits/Units

This undergraduate course advances student knowledge, understanding, and appreciation of the African political system using an interdisciplinary approach (i.e., social sciences and humanities). In this course students use worlds systems theory and comparative methodology to (a) review relevant political system history, (b) summarize important informal & information institutions, (c) analyze critical political system variables, and (d) evaluate political system variables within a globalizing international environment.

POLISCI 20809247 Introduction to East Asian Politics 3 Credits/Units

undergraduate course advances student knowledge, understanding, and appreciation of the Asian political system using an interdisciplinary approach (i.e., social sciences and humanities). In this course students use worlds systems theory and comparative methodology to (a) review relevant political system history, (b) summarize important informal & information institutions, (c) analyze critical political system variables, and (d) evaluate political system variables within a globalizing international environment.

POLISCI 20809248 Politics of India 3 Credits/Units

This course examines the Political system of India by summarizing, analyzing, and evaluating its formal/informal political insitutions. This course provides each student with fundamental knowledge and basic skill/ability training to engage in meaningful Global Studies.

POLISCI 20809254 Political Science Research Methods 3 Credits/Units

Political Science Research Methods is a subcategory within the social science discipline of Political Science. Political Science Research Methods provides students with an introduction to the research methods used to explore political public policy questions. In this course, students engage in the following: (a) Knowledge of political research and research design, (b) comprehend theory and hypothesis testing, (c) analyze qualitative and quantitative data, and (d) evaluate analysis findings. This course serves as an introduction to political science research methods and techniques.

PSYCH 10809127 Human Development 3 Credits/Units

Human Development focuses on human physical, motor, cognitive and social development across the life span. Recognition of and adjustment to normal development stages and typical life problems are emphasized. The roles of parents, peers and environmental factors on development and behavior are highlighted.

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 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

Human Sexuality covers how intimate relationships develop, how to maintain warmth and closeness in relationships and how sexuality is expressed throughout the life cycle. Also covers practical information regarding sexually transmitted diseases, contraception and pregnancy.

PSYCH 20809225 Social Psychology 3 Credits/Units

Social Psychology is the study of the individual in the social setting. Topics include interpersonal attraction, aggression, sex roles, attribution, altruism, obedience, conformity, attitude change and others.

PSYCH 20809231	Intro Psychology	3 Credits/Units
Introduction to Psychology is a study of individual and social behavior including its psychological and physiological bases, development, motivation, emotion, perception, learning and behavior disorders. This course is a prerequisite for several college transfer courses in psychology.		
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 Psych	3 Credits/Units
Abnormal Psychology covers the definition of abnormal behavior, assessment techniques, and descriptions of psychological disorders. It examines theoretical perspectives (biological, psychological, sociocultural) and approaches to treating these disorders.		
PSYCH 20809239	Child Human Development	3 Credits/Units
This course covers the biological, cognitive and psychosocial aspects of development from conception through childhood.		
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.		
PTASST 10524139	PTA Patient Interventions	4 Credits/Units
An introduction to basic skills and physical therapy interventions performed by the physical therapist assistant.		
PTASST 10524140	PTA Professional Issues 1	2 Credits/Units
Introduces the history and development of the physical therapy program; legal and ethical issues; the interdisciplinary health care team; and professional communication skills.		
PTASST 10524142	PTA Therapeutic Exercise	3 Credits/Units
Provides instruction on the implementation of a variety of therapeutic exercise principles. Learners implement, educate, adapt, and assess responses to therapeutic exercises.		
PTASST 10524143	PTA Therapeutic Modalities	4 Credits/Units
Develops the knowledge and technical skills necessary to perform numerous therapeutic modalities likely to be utilized as a PTA.		
PTASST 10524144	PTA Princ of Neuro Rehab	4 Credits/Units
Integrates concepts of neuromuscular pathologies, physical therapy interventions, and data collection in patient treatment.		
PTASST 10524145	PTA Princ of Musculo Rehab	4 Credits/Units
Integrates concepts of musculoskeletal pathologies, physical therapy interventions, and data collection in patient treatment.		
PTASST 10524146	PTA Cardio and Integumentary Management	3 Credits/Units
Integrates concepts of cardiopulmonary and integumentary pathologies, physical therapy interventions, and data collection in patient treatment.		
PTASST 10524147	PTA Clinical Practice 1	2 Credits/Units
Provides a part-time clinical experience to apply foundational elements, knowledge, and technical skills pertinent to physical therapy practice.		
PTASST 10524148	PTA Clinical Practice 2	3 Credits/Units
Provides another part-time clinical experience to apply foundational elements, knowledge, and technical skills required of the entry level physical therapist assistant in various practice settings.		
PTASST 10524149	PTA Rehab Across the Lifespan	2 Credits/Units
A capstone course that integrates concepts of pathology, physical therapy interventions and data collection across the lifespan. In addition the PTA's role in health, wellness and prevention; reintegration, and physical therapy interventions for special patient populations will be addressed. Pre-requisites: 10-524-144, 10-524-145, 10-524-146, 10-524-147; Co-requisites: 10-524-148, 10-524-150, 10-524-151.		
PTASST 10524150	PTA Professional Issues 2	2 Credits/Units

Incorporates professional development, advanced legal and ethical issues, healthcare management and administration, and further development of professional communication strategies. Pre-requisites: 10-524-144, 10-524-145, 10-524-146, 10-524-147; Co-requisites: 10-524-148, 10-524-149, 10-524-151.

PTASST 10524151 PTA Clinical Practice 3 5 Credits/Units

Provides a full-time clinical experience to apply foundational elements, knowledge, and technical skills required of the entry level physical therapist assistant in various practice settings. Pre-requisites: 10-524-144, 10-524-145, 10-524-146, 10-524-147; co-requisites: 10-524-148, 10-524-149, 10-524-150.

PTASST 10524156 PTA Applied Kinesiology 1 4 Credits/Units

Introduces basic principles of musculoskeletal anatomy, kinematics, and clinical assessment. Students locate and identify muscles, joints, and other landmarks of the lower quadrant in addition to assessing range of motion and strength.

PTASST 10524157 PTA Applied Kinesiology 2 3 Credits/Units

Applies basic principles from PTA Kinesiology 1 to the axial skeleton and upper quadrant including location and identification of muscles, joints, and other landmarks. Assess range of motion and strength of the axial skeleton and upper quadrant. Integrate analysis of posture and gait.

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 1 3 Credits/Units

Introduces radiography students to the process of creating radiographic images. Students determine the factors that affect image quality including contrast, density, and distortion. Students apply OSHA standards for health and safety in the darkroom. Corequisites: 10-526-149, 10-526-158, and 10-526-168.

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. Corequisites: 10-526-149, 10-526-158, 10-526-159.

RADTEC 10526170 Radiographic Imaging 2 3 Credits/Units

Prepares radiography students to apply advanced radiographic principles to the production of radiographic images. Students analyze exposure factor considerations, differentiate between film and exposure latitude, and use beam restricting devices.

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 10526190 Radiographic Clinical 5 2 Credits/Units

This fifth-level clinical 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.

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.		
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 Quality 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. Prerequisite: 10-526-193. Corequisites: 10-526-194, 10-526-195, 10-526-196 and 10-526-199		
RADTEC 10526196	Modalities	3 Credits/Units
Introduces radiography students to other types of imaging including ultrasound, MRI, mammography, and bone density scans. Students analyze the role of various imaging technologies in health care. Prerequisite: 10-526-193. Corequisites: 10-526-194, 10-526-195 and 10-526-199		
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 how 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. Prerequisite: 10-526-190		
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. Prerequisite: 10-526-193. Corequisites: 10-526-194, 10-526-195, 10-526-196.		
RECMGT 10109103	Leisure and Lifestyle	3 Credits/Units
Encourages a holistic and comprehensive understanding of the significance of leisure to the individual and society. Emphasizes concepts, theories, and the interrelationships between factors (social, economic, political, and environmental), which influence people's leisure attitudes and behavior.		
RECMGT 10109106	Recreation Programming	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.		
RECMGT 10109115	Recreation Administration & Management	3 Credits/Units
Prepares students for entry-level management positions in the leisure services profession. The course is project oriented and will focus on the areas of agency management, human resources, budgeting, risk management and legal issues in leisure services; agency and program evaluation, facility scheduling, and public relations. Students will develop an agency registration manual for presentation to the class.		
RECMGT 10109135	Leadership Strategies in Recreation	3 Credits/Units

This course focuses on the development of foundational leadership knowledge and skills within the recreation 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 recreation activities, including cooperative games and group initiatives.

RECMGT 10109149 Risk Management in Recreation 2 Credits/Units
 This course identifies and addresses tort law, negligence, standard of care, and risk mitigation in recreation. It prepares students to manage legal risks associated with recreational experiences and venues. Case studies and mock trials will be used to help illustrate the content. Possible certifications include: Heartsaver First Aid, CPR and AED, WSI, and Lifeguarding.

RECMGT 10109155 Facility Operations and Maintenance 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.

RECMGT 10109159 Wellness Coaching and Promotion 3 Credits/Units
 This course explores wellness coaching, a growing fitness specialty where healthcare providers and fitness/wellness professionals collaborate to help individuals improve and maintain overall well being. Wellness coaching combines exercise, wellness and health sciences to promote lifestyle modification and behavioral change. Wellness coaches are found in a variety of settings including public, not-for-profit and commercial.

RECMGT 10109160 Inclusive Recreation 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.

RECMGT 10109162 Introduction to Recreation 2 Credits/Units
 Introduces new students to the recreation profession and its potential careers. Emphasis is placed on the development of the profession, the community service leisure service system and professional organizations.

RECMGT 10109163 Trends and Topics in Recreation 3 Credits/Units
 This course content changes from semester to semester and is based on the hottest and most important recreation trends and topics. Students will explore cutting-edge theories and practices and have an opportunity to explore trends in which they have a particular interest. Course should be taken in the fourth or final semester of study in the program.

RECMGT 10109171 Internship Development and Community Partnerships 2 Credits/Units
 Focus on preparing students for the internship experience through the identification of career goals and objectives in order to select an internship site. Topics include placement requirements and policies, resumes, interviewing, letters of application, and the role and issues of professional practice.

RECMGT 10109173 Group Fitness Development 3 Credits/Units
 ACE PREP COURSE - This course is designed to provide the theoretical knowledge and practical skills in preparation for the American Council on Exercise (ACE) Group Fitness Instructor Certification Exam and become effective group fitness instructors. The course uses a two-pronged approach in preparation to become a certified group fitness instructor. Students will have the opportunity for hands on interactive training associated with cuing and class choreography in addition to the theoretical base presented in lectures. By the end of course, individuals should be proficient in presenting class formats such as sculpting, step, kickboxing and hi/lo. Topics include guidelines for instructing safe, effective and purposeful exercises, essentials of the instructor-participant relationship, the principles of motivation to encourage adherence in the group fitness setting, effective instructor-to-participant communication techniques, methods for enhancing group leadership, and the group fitness instructor's professional role. Students are strongly encouraged to take both 10-501-153 and 20-806-262 prior to this course.

RECMGT 10109175 Recreation Internship Practicum 2 Credits/Units
 Students must complete a 220-hours internship with an approved recreation business agency. The on-site practitioner and internship coordinator supervise the student's progress. This internship can be paid or unpaid.

RECMGT 10109176 Personal Trainer Development 3 Credits/Units
 ACE PREP COURSE - This course is designed to give students the knowledge and understanding necessary to prepare for the American Council on Exercise (ACE) Personal Trainer Certification Exam and become effective personal trainers. Through lecture and hands-on learning, this course presents the ACE Integrated Fitness Training (ACE IFT) Model as a comprehensive system for designing individualized programs based on each client's unique health, fitness, and goals. The information covered by this course and the ACE IFT Model will help students learn how to facilitate rapport, adherence, self-efficacy and behavior change in clients, as well as design programs that help clients to improve posture, movement, flexibility, balance, core function, cardio-respiratory fitness, and muscular endurance and strength. Students are strongly encouraged to take both 10-501-153 and 20-80-6262 prior to this course.

RECMGT 10109189 Foundations of Worksite Wellness 3 Credits/Units

Employers are showing increased commitment to developing wellness programs that help recruit and retain employees, enhance health and sense of well being, improve productivity and enrich quality of life. This course prepares you to help employers shape, implement and evaluate these programs through an understanding of the health promotion concept, management issues, theories of behavior change for motivation and skill building, core programming and emerging trends.

RECMGT 10109190 Recreation Seminar 1 Credits/Units
 Designed to assist the graduating student with job placement. Self-evaluation and job-related skills, interests, attributes and achievements are discussed. The course reviews how to target job possibilities, write resumes, and includes practical interviewing. The concept of job networking is also stressed. Prerequisite: course should be taken in the final semester of the program.

RECMGT 10109195 Recreation Industry Budget and Financial Management 3 Credits/Units
 Financial methods and techniques utilized in the recreation industry. Emphasis on sources and methods of financing, forecasting cost and income, budgeting, pricing, grant seeking, sponsorship, fundraising and fiscal management.

RECMGT 10109196 Principles of Outdoor Pursuits 3 Credits/Units
 This course provides the fundamental knowledge, skills and experience necessary to lead people in outdoor recreational activities. The course includes topics on trip planning, safety procedures, equipment, leadership methods and expedition behavior for a variety of outdoor trip activities. Classroom as well as experiential involvement required.

RECMGT 10109197 Challenge Course Programming 3 Credits/Units
 Learn basic facilitation and technical skills to manage challenge course programs. Topics include philosophy of adventure-based initiatives, belay techniques, safety procedures, rescues, facilitation skills and methods, and team development. This course provides the skills and techniques needed for certification by the Association for Challenge Course Technology (Level 1 or 2). Certification test is included in the course fee.

RECMGT 10109199 Adventure Processing and Facilitation 3 Credits/Units
 Provides the skills necessary to facilitate client groups in a variety of outdoor and experiential settings. Topics include philosophy of experiential learning, adventure-based processing, leading group discussions, debriefing, frontloading, metaphor development, and transfer of client learning. Students will develop and facilitate a program with a client group.

RENEWELC 10482101 Introduction to Wind Energy Technology 3 Credits/Units
 This course prepares the learner to assess the global energy picture; analyze the causes of wind and wind flow properties; explore small, medium, and large wind turbine designs; assess the environmental effects of wind turbines; perform business and site assessments for a wind turbine project, plan your wind turbine project, evaluate operation and maintenance of the turbine system, and analyze the future of wind energy.

RENEWELC 10482102 Wind Systems Technician 1 3 Credits/Units
 Allows participants to develop essential skills and attitudes for employment in the wind industry. Topics include: safety, electrical hazard, confined space, climbing practices, tool use, calibration, documentation and routine wind turbine maintenance operations.

RENEWELC 10482103 Photovoltaic Systems and the National Electric Code 1 Credits/Units
 Students will learn to apply the NEC rules to photovoltaic systems. Topics will include conductor sizing, overcurrent protection, grounding, maximum voltage and current calculations and other applicable rules. Students will be able to apply this knowledge to one or more photovoltaic systems.

RENEWELC 10482135 Advanced Photovoltaic Electives 3 Credits/Units
 Periodically opportunities will arise for unique coursework that is difficult to schedule on a regular basis. Examples of this could include large system decommissioning, foundation work, or even installations that are experimental. Because the size and scope of these courses will vary, they may range in size from 1-3 credits/units. These courses may also have pre or co-requisite classes involved. More details will be listed under the notes area of the section being offered.

RENEWELC 10482137 Photovoltaic Site Assessment 1 Credits/Units
 Students will learn how to conduct an assessment of a location for a photovoltaic system. They will learn the qualities of an ideal location, structural concerns, tools to use, proper documentation techniques, load analysis, energy production estimation, and concerns with existing electrical service. Students will also complete a photovoltaic site assessment as part of the course. This class is offered in an online or hybrid format with extensive work assigned outside of class.

RENEWELC 10482138 Introduction to Photovoltaic Technology 2 Credits/Units
 Hybrid and online offering. Students will learn the basic concepts of solar electric photovoltaic systems, including how photovoltaic cells produce electricity, components and types of photovoltaic systems, the process of installing a photovoltaic system and whether and where to install a photovoltaic system. Students will also analyze utility bills, energy production, cost and incentives available for photovoltaic systems.

RENEWELC 10482139 Grid-Connected Photovoltaic Design and Installation 2 Credits/Units

Students in this course will learn the principles of photovoltaic system design for photovoltaic systems connected to the utility grid. Each student will prepare a model design. Students will learn the components of PV systems, the tools and techniques to install PV systems and the safety concerns specific to photovoltaic work. Students will install one or more fully operational grid-connected PV systems.

RENEWELC 10482140 **Grid Connected Photovoltaic System Design** **1 Credits/Units**
 Students will learn the principles of photovoltaic system design for photovoltaic systems connected to the utility grid. Each student will prepare a model design.

RENEWELC 10482141 **Grid Connected Photovoltaic Systems Installation Lab** **1 Credits/Units**
 Students will install one or more fully operational grid connected photovoltaic systems.

RENEWELC 10482142 **Off Grid Photovoltaic System Design** **1 Credits/Units**
 Students in this course will learn the principles of photovoltaic system design for off grid photovoltaic systems. Each student will prepare a model design.

RENEWELC 10482143 **Off Grid Photo Systems Installation Lab** **1 Credits/Units**
 ?Off Grid Solar Photovoltaic Systems Installation Lab. Students will install one or more fully operational off grid photovoltaic systems.

RENEWELC 10482149 **Photovoltaic Technical Sales** **1 Credits/Units**
 ?Solar Photovoltaic Technical Sales
 Students will learn the tools and information needed to perform in a sales position for photovoltaic contractors. Students will prepare a sales document as part of the course.

RENEWELC 10482152 **Wind Systems Repair and Maintenance** **2 Credits/Units**
 Students will visit a number of area wind turbines and learn how to do system repairs and annual maintenance. Machines from 1kW to 100kW will be covered. Work will include freestanding, guyed and tilt-up towers. This is a working class, with optional tower climbing.

RENEWELC 10482153 **Wind Turbine Installation** **2 Credits/Units**
 This hands-on course covers the fundamentals of installing a wind turbine on a tiltup or self-sustaining tower. The power generated by the turbine will be used to charge batteries, be fed to the electrical grid, or hybrid configuration. Data collection equipment will also be set up on the tower that will provide real-time wind speed, direction, solar isolation and weather conditions.

Note: when offered for two (2) credits, there is a pre-requisite of 10-482-102, Wind Systems Technician 1.

RENEWELC 10482154 **Advanced Wind Systems Electives** **3 Credits/Units**
 Periodically opportunities will arise for unique coursework that is difficult to schedule on a regular basis. Examples of this could include large system decommissioning, foundation work, or even installations that are experimental. Because the size and scope of these courses will vary, they may range in size from 1-3 credits/units. These courses may also have pre or co-requisite classes involved. More details will be listed under the notes area of the section being offered.

RENEWELC 10482156 **Wind Turbine Design and Construction** **3 Credits/Units**
 Develop knowledge and skills in basic electricity, wood working, metal working, resin casting, and a variety of other skills. Attendees will complete at least one 7' and one 10' diameter wind turbine and have the opportunity to build a wind machine of their own. Based upon the Homebrew Wind Power text and design, and inspired by the work of Hugh Piggott. Each turbine will be fabricated from 'scratch' and tested upon class completion. An option to purchase a completed turbine may occur in each class.

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. Pre-requisites: Acceptance into the Respiratory Therapy program. Corequisites: 20-806-206, General Anatomy & Physiology and 10-806-134, General Chemistry.

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. Prerequisites: 10-515-175, 10-515-112
 Corequisites: 10-515-178 & 10-515-179.

RESPC 10515171 **Respiratory Therapeutics1** **3 Credits/Units**
 Introduces the topics of medical gas administration and 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.		
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. Prerequisites: 10-515-175. Corequisites: 10-515-177, 10-515-178, and 10-515-179		
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. Prerequisites: 10-515-175. Corequisites: 10-515-176, 10-515-177, and 10-515-179.		
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. Prerequisites: 10-515-175. Corequisites: 10-515-176, 10-515-177, and 10-515-178.		
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.		
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 modification 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	4 Credits/Units

Introduces students to the field of Science and Technology Studies (STS). Students explore the ways in which science and technology impact our everyday lives from a sociological perspective. Following an initial examination of the history of STS, scientific and technological revolutions, major schools of thought in the field of STS, and the role of science and technology in our everyday lives, students will focus on applied areas of science and technology using the life sciences and social media as case studies. Course work centers on current topics that our society is grappling with such as surveillance, body politics, medical applications, the role of the market in science and technology, and the consequences of the speed and ease of the use of technology in the twenty-first century. Throughout the semester, students will critically reflect upon personal, community, and societal issues that arise out of science and technology through discussion and debate.

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 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.

SOCSCI 20809234 Psychology of Women 3 Credits/Units
 Review psychological theories and research on women and gender, focusing on uniquely female experiences throughout the life cycle. We will explore the diversity of women by examining the impact of social factors such as race, ethnicity, class, and sexual orientation as they relate to sexism, gender roles, sex differences, language, emotion, motivation, relationships, sexuality, employment, victimization, parenting, and health.

SPANISH 10802102 Introductory Spanish Conversation 1 3 Credits/Units
 Introductory Spanish Conversation is a three-credit, non-college transfer class. At the end of the course, students will be able to carry on uncomplicated conversations about concrete, limited topics. To emphasize speaking and listening skills, the course includes substantial practice in understanding and producing the spoken language. Basic grammatical and structural concepts are introduced, and the development of vocabulary skills is highlighted. Cultural topics are also discussed.

Introductory Spanish Conversation is intended for (a) students who want an introduction to Spanish for communicative purposes and (b) students who need a one-semester introduction to the language before beginning the more intensive college-transfer Spanish courses.

SPANISH 20802211 Spanish 1 - Liberal Arts Transfer 4 Credits/Units
 Spanish 1 is for students beginning the study of Spanish. This course emphasizes development of basic communicative skills through practice in listening, speaking, reading and writing. Stresses vocabulary and grammar to enhance students' ability to speak and write in Spanish. Study of customs and values provides an increased awareness of the Spanish-speaking cultures. On completion students are able to participate in uncomplicated conversations on everyday topics. Some computer use is required for completing on-line homework assignments.

SPANISH 20802212 Spanish 2 - Liberal Arts Transfer 4 Credits/Units
 Spanish 2 emphasizes continued development of more complex communicative skills through practice in listening, speaking, reading and writing. Vocabulary and grammar are studied to enhance students' abilities to speak and write in Spanish. Upon completion, students possess the listening, speaking, reading and writing skills necessary to handle simple, everyday survival tasks in Hispanic cultures. Some computer use is required for completing on-line homework assignments.

SPANISH 20802213 Spanish 3 - Liberal Arts Transfer 4 Credits/Units
 Spanish 3 enhances complex communicative skills developed during previous semesters of study. Emphasis is placed on speaking and writing in extended contexts, focusing on presentational and interpersonal communication. Everyday situations, including eating out, travel and vacations, provide students an opportunity to expand their survival skills in Hispanic cultures. Language and critical thinking skills are expanded and deepened through reading, writing and speaking about health care, the environment, job interviews/resumes and relationships. Readings of cultural and literary significance, as well as a unit on art history, provide vehicles for discussion, presentation and composition. Some computer use is required for completing on-line homework assignments.

SPANISH 20802214 Spanish 4 - Liberal Arts Transfer 4 Credits/Units
 This course reviews and expands upon key grammatical structures needed to communicate effectively in Spanish. It focuses on expanding vocabulary, increasing grammatical accuracy and achieving paragraph-length discourse. Using the target language, students read and discuss culturally centered texts, review and broaden grammatical knowledge, complete oral and written exercises, write compositions and make formal class presentations. Some computer use is required for completing on-line homework assignments.

SPANISH 20802215 Spanish 5 3 Credits/Units

Spanish 5 focuses on developing accuracy in written communication skills. Building on their experience in Spanish 4, students study Spanish grammar at greater breadth and depth than was required in previous courses, with the ultimate objective of improving their ability to write accurately in Spanish. Students read and analyze literary excerpts as the basis for active class discussion, presentation and composition.

SPANISH 20802216 Spanish Culture & Civilization - Liberal Arts Transfer 4 Credits/Units

A course description is unavailable for this course. Please check with the center office for details.

SPANISH 20802217 Spanish for Heritage Speakers 4 Credits/Units

Heritage speakers are often defined as individuals who grew up in a Spanish-speaking household and who possess a certain degree of communicative proficiency, but who have not been formally educated in Spanish. While fluent in informal, everyday conversation, heritage speakers may struggle in academic and professional settings. The areas of reading and writing usually present additional challenges. This course will provide the heritage speaker with the opportunity to further develop his/her existing Spanish language skills while learning more about his/her cultural and linguistic heritage. Students will develop strategic academic and professional vocabulary, learn to use appropriate register, read excerpts from a variety of literary genres, engage in academic and professional writing, and refine linguistic rules related to grammar, spelling, accent marks and capitalization. All the while students will be engaged in the exploration and discussion of the rich cultural Hispanic traditions both in and outside the U.S. *NOTE: There is a 20-hour service learning requirement for this course. Students who do not complete this requirement will not earn a passing grade. Prerequisite: Spanish Language background at home.

SPEECH 10801198 Speech 3 Credits/Units

This course presents the basic techniques of effective public speaking and listening for students in degree or diploma programs. Students improve their oral communication skills through analysis of purposive listening, preparing and presenting informative and persuasive speeches and using the group process to discuss issues and solve problems. It emphasizes audience analysis, audio-visual techniques, speaker evaluation and group work.

SPEECH 20810202 Theory & Practice of Argumentation and Debate 3 Credits/Units

This course focuses on the theory and practice of argumentation. On the theoretical level, we will seek to conceive the operations of social and personal transformation that can take place during debate. In particular, we will focus on the means by which arguments can turn on established bases of authority. These sites of commonplace meaning will not only be approached as potential supports for claims, but also as sites in which uncertainty can be created. On the practical level, we will interpret, analyze, and counter present-day arguments. We will also construct arguments of our own and test them in live debates. Finally, we will consider the ways in which the contemporary U.S. government and mass media are actually structured, with an eye to developing pragmatic strategies for effective advocacy.

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.

STEAM 50435530 Sf Rel Sci/Math/Bpr/Drawing 4 Credits/Units

This course description is unavailable at this time. Please contact the center offering the course for more information.

STEAM 50435531 Sf Refrig/Math Bpr/Drawing 4 Credits/Units

This course description is unavailable at this time. Please contact the center offering the course for more information.

STEAM 50435532 Hydronic Prin/Math/Bpr/Draw 4 Credits/Units

This course description is unavailable at this time. Please contact the center offering the course for more information.

STEAM 50435533 Steam Heat Prin/Math/Bpr/Draw 4 Credits/Units

This course description is unavailable at this time. Please contact the center offering the course for more information.

STEAM 50435534 Sf Digital Cntr Sys/Comptr Apl 2 Credits/Units

This course description is unavailable at this time. Please contact the center offering the course for more information.

STEELIRN 50437535 Combined Weld for IW 2 Credits/Units

This course description is unavailable at this time. Please contact the center offering the course for more information.

STEELIRN 50437536 Gmaw/Fcaw Welding 2 Credits/Units

This course description is unavailable at this time. Please contact the center offering the course for more information.

STEELIRN 50437537 Gtaw (Gas Tungson Arc Welding) 2 Credits/Units

This course description is unavailable at this time. Please contact the center offering the course for more information.

STEELIRN 50437570 Reinforcing Steel/Post Tensioning/Math 2 Credits/Units

This course description is unavailable at this time. Please contact the center offering the course for more information.

STEELIRN 50437571 Ornamental 2 Credits/Units

This course description is unavailable at this time. Please contact the center offering the course for more information.

STEELIRN 50437703 Structural Steel Erection 1 3 Credits/Units

This structural course is designed to provide the Iron Worker student with training in structural steel erection including history, safety, tools and equipment, drawings, handling materials, erecting structural steel members, plumbing and aligning structural steel, bolting up, and making structural connections. This also will provide the Iron Worker student with training in how to safely install metal decking and sheeting. The course will also include overviews of erecting bridges, towers, wind turbines, clear span, and amusement park structures. The student will also learn how to use composite materials in structural erection and how to read structural drawings.

SUPDEV 10196116 Organizational Behavior 3 Credits/Units

In this course, the learner applies the skills and tools necessary to work effectively with behavior found in organizations. Each learner will explore and demonstrate the application of theories in motivation, perception, organizational culture, employee development and communication. In addition, concepts such as diversity, decision making, conflict management and managing in a global environment will be introduced.

SUPDEV 10196136 Safety in the Workplace 3 Credits/Units

The learner applies the skills and tools necessary to provide a safe and secure work environment. Each learner will demonstrate the application of strategies regarding safety awareness, compliance, investigation and documentation. Other topics include: safety orientation, chemical safety, right-to-know, inspections, risk analysis, workplace violence, substance abuse, first aid, fire and electrical safety, emergency preparedness and liaison with external agencies.

SUPDEV 10196169 Diversity & Change Management 3 Credits/Units

The learner applies the skills and tools necessary to implement and maintain a diverse work environment that values change. Each learner will demonstrate the application of assessing the current extent of diversity in the workplace, analyze the effect of perceptions, attitudes, biases, and organization culture on diversity, dealing with barriers, change management strategies, process, and reactions, measuring progress and celebrating success.

SUPDEV 10196189 Team Building & Problem Solving 3 Credits/Units

The learner applies the skills and tools necessary to facilitate problem solving in a team environment. Each learner will demonstrate the application of strategies regarding: the necessary roles for team effectiveness, stages of team development, team problem solving and consensus, systematic processes for problem definition, data acquisition and analysis, generating alternative solutions, choosing solutions, implementation planning and evaluation.

SUPDEV 10196191 Principles of Supervision 3 Credits/Units

The learner applies the skills and tools necessary to perform the functions of a front line manager. Each learner will demonstrate the application of strategies to make the transition to a contemporary supervisory role including: operations planning and analysis, delegation, staffing, problem solving, motivation, training, leadership and performance assessment.

SURGT 31512317 Surgical Technologist Functional Microbiology 1 Credits/Units

Introduces general classification, structure and physiology of microorganisms. Students learn the relationship between microorganisms and the human host as well as microbes in the hospital environment. Examines the study of the disease process, transmission of disease and methods of controlling microbial growth. Reserved for Surgical Technologist waiting list students until open registration. Pre/Co requisites: Medical Terminology and General A&P, or A&P 1 and 2. Computer Skills are highly recommended.

SURGT 31512327 ST: Introduction 4 Credits/Units

Provides the foundational knowledge of infection control and asepsis. Legal and ethical issues encountered in the healthcare environment are explored. Simulated laboratory practice enables the learner to develop beginning technical skills.

SURGT 31512328 ST: Fundamentals 1 4 Credits/Units

Includes the basic clinical skills needed by the Surgical Technologist in the scrub role. Learners develop skills in identifying basic instrumentation, supplies, drains, catheters, dressings and sponges. Includes practice experience in creating a sterile field, draping, passing instruments and supplies, performing counts and preparing supplies.

SURGT 31512329 ST: Fundamentals 2 2 Credits/Units

Builds upon and reinforces the role of the Surgical Technologist as a member of the operating room team. Discusses care of the patient before, during and after surgery with emphasis on surgical wounds, wound closure materials, and vital signs. Includes lecture and lab experiences.

SURGT 31512330 ST: Clinical 1 3 Credits/Units

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 10091120	Veterinary Clinical Pathology 1	3 Credits/Units
Students are introduced to laboratory equipment, elementary laboratory procedures and the principles of microscopy, parasitology, urine analysis, hematology and bacteriology.		
VETTECH 10091121	Veterinary Clinical Pathology 3	3 Credits/Units
Continues to expand upon the principles, procedures and skills learned in Vet. Clinical Pathology 1 and 2, including hematology, parasitology, urine analysis, microbiology, cytology, mycology, virology, serology, immunology and blood chemistries. Will continue to expand upon the use of automated laboratory procedures for hematology and clinical chemistries.		
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 10091124	Veterinary Clinical Pathology 2	3 Credits/Units
Second in sequence of three courses. Students utilize laboratory equipment, including the microscope and complete selected laboratory procedures, including parasitology, mycology, urine analysis, hematology, serology, bacteriology, cytology and blood chemistries.		
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 10091131	Veterinary Office Procedures 1	1 Credits/Units
Covers the development of appropriate public, client and staff relations; telephone etiquette, making appointments, managing records, client services and education, and personal grooming and attire. Legal requirements of record keeping as well as an introduction to the rules and regulations governing the veterinary and laboratory animal technician will also be discussed.		
VETTECH 10091132	Veterinary Office Procedures 2	1 Credits/Units
A computer based course covering office documents, patient records, billing, estimates, etc., using veterinary office software.		
VETTECH 10091140	Animal Anatomy & Physiology 1	3 Credits/Units
Lectures will emphasize terminology, functions, location, identification and organization of anatomical structures that are parts of body systems. Students dissect and study cadavers and tissue specimens from common domestic species.		
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 prophylaxis, 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 10091158	Internship - Veterinary Technician Program	4 Credits/Units
Internship (work experience) is a very important phase of practical training for students enrolled in the veterinary program. It generally follows the second semester of classwork in the program. The internship course is offered during the summer term and requires a minimum of eight weeks, and completion of a minimum of 288 hours. The student's work is supervised by assigned instructors. Prerequisite: completion of all first-year program courses, or consent of instructors.		

VETTECH 10091170	Veterinary Medical Terminology - Veterinary Technician Program	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, 10-806-105 Animal Biology, 10-091-105 Occupational Preparation.		
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.		
VICOM 10206105	Communication Design	3 Credits/Units
Includes projects dealing with typographic and pictorial elements. Projects include single page layouts, mailer design and poster design, brochures, newsletters and letterhead and logo designs.		
VICOM 10206107	Presentation Design	2 Credits/Units
Emphasizes presentation design and graphics for projected media including design and use of PowerPoint. Design techniques for various types of data are included.		
VICOM 10206108	Visual Storytelling Techniques	2 Credits/Units
This course serves as an introduction to the creative process - through drawing techniques, concept development, storyboarding and the principles of design. Students work with a blend of traditional and digital media.		
VICOM 10206109	Intro to Electronic Design	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.		
VICOM 10206110	Introduction to 3D	3 Credits/Units
Learners use a range of 3D modeling programs to design and problem solve in three-dimensional space. With an emphasis on pre-visualization, sketching and planning precedes construction of any 3D models. Subjects include animated text, basic modeling, lighting, camera layers, compositing, and rendering.		
VICOM 10206115	Digital Media for Photographers	3 Credits/Units
This course will explore the different kinds of digital media available to provide the photography student with additional tools and skills. The student will learn basic video camera techniques, video editing, sound capturing, DVD preparation and other creative software programs. This course is meant to prepare photo students for potential business applications that integrate sound, images and video.		
VICOM 10206125	Instructional Media Systems	3 Credits/Units
This advanced course serves as a continuation of Multimedia Presentation. Media integration and various delivery types are addressed with an emphasis on instructional use. Concepts include identifying a target demographic, learner styles, designing interactivity, and planning non-linear projects.		
VICOM 10206128	Compositing and Special Effects	2 Credits/Units
Chroma keying, 3D, expressions, mattes, rotoscoping, motion tracking, particles and advanced camera effects are the main focus of this course. Students will use After Effects and Motion to create movies for various delivery methods, using storyboarding and previsualization techniques prior to development.		
VICOM 10206129	Motion Design	2 Credits/Units
The focus of this course is learning the basic tenets of animation and movement for time-based media, with an emphasis on communication design. Learners will use Adobe After Effects to integrate typography, illustration, photography, video, and audio files to create industry relevant projects. Concept development, asset creation, file management, the timeline, character animation, effects, transitions, masking, and rendering for multiple output types will be covered in detail.		
VICOM 10206130	Video Production	3 Credits/Units
The student will become familiar with basic video production techniques for studio and fieldwork. Learning the basics of camera techniques, studio and field experiences, live studio recording and video team productions will be covered. In addition, the student will learn digital editing software to produce finished video projects, such as educational, promotional and service videos.		
VICOM 10206131	Sound Production Techniques	3 Credits/Units

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. Also, oxy-fuel and plasma cutting safety and proper handling of cylinders is covered. Applications will be to English and metric dimension.		
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 stainless steel. Development of skills and techniques on all types of joints in flat and horizontal positions. Aluminum and steel techniques may also be covered.		
WELD 31442320	Welding Occupational Development	1 Credits/Units
Applications of welding terminology, use of forms, contracting, professional ethics and employment relations are studied. Specific topics germane to the welding field in decision-making, responsibility and preparation for the welding career are covered.		
WELD 31442321	Arc Welding (SMAW) Vertical	2 Credits/Units
Students develop manipulative skills on all types of joints in the vertical up and down positions, using E7018 & 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 develop manipulative skills on all types of joints in the flat, horizontal and vertical up and down position using short circuiting transfer. Students will perform gas metal arc welding techniques using 1/8" to 1/2" structural fabricated parts, as per AWS code standards. Emphasis is placed on operating gas metal arc welding equipment in a safe manner and determining machine set-up for metal thickness, wire size and speed.		
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.		
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.		
WELD 32442313	Related Welding	1 Credits/Units
A lecture/hands-on course; students learn basic welding processes, equipment operations and safety procedurs. Emphasizes welding procedures and practices commonly used in the machine tool industry.		