MADISON AREA TECHNICAL COLLEGE

1991-1993 CATALOG

Madison Locations
MATC-Truax Campus
3550 Anderson Street
Madison, WI 53704
608/246-MATC

Commercial Avenue Education Center
2125 Commercial Avenue
Madison, WI 53704
608/246-5200

Downtown Education Center
211 North Carroll Street
Madison, WI 53703
608/258-2300

Fire Service Education Center
1750 Pearson Street
Madison, WI 53704
608/246-6911

South Madison Education Center
1602 South Park Street
Madison, WI 53715
608/255-6568

Satellite Campuses
MATC-Fort Atkinson
827 Banker Road
Fort Atkinson, WI 53538
414/563-6611

MATC-Portage
330 Collins Street
Portage, WI 53901
608/742-2151

MATC-Reedsburg
300 Alexander Avenue
Reedsburg, WI 53959
608/524-4386

MATC-Watertown
1300 West Main Street
Watertown, WI 53094
414/261-3776
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The School of Industrial Education opened in 1912 with 66 students in the entering class. Today, more than 53,000 students attend Madison Area Technical College each year at campuses in Madison, Fort Atkinson, Portage, Reedsburg and Watertown.

At MATC, our goal for each of those students is to provide a challenging curriculum enabling them to participate fully and productively in the community. We’re able to prepare students for a global marketplace, thanks to a strong, innovative faculty and state-of-the-art facilities. Because MATC is very much a part of the community it serves, those assets spill over, helping to create a community that is vital and competitive.

MATC provides students with a variety of tools to help them succeed, from career planning and counseling to remedial help in basic skills, including reading, language and math.

Programs of study at MATC are designed to meet the demands of the marketplace, ensuring students of relevant instruction. Advisory committees made up of practitioners from local businesses and industries offer continuing feedback to faculty on changes taking place in the field.

In addition, MATC works directly with businesses and industries, offering on-site training custom-designed to meet the unique needs of the client. The college’s close relationship with area employers further ensures that course and program offerings are relevant to the needs of the community and students.

Building a strong community means using the talents of all people. MATC recognizes the strength inherent in diversity and works to serve and enhance that diversity.

Student activities and cultural events reflect and celebrate diversity, with opportunities for all students to share and learn from each other.

Many of today’s students balance school with job and family responsibilities, so the college offers a daycare facility and classes at times that are convenient to those with competing schedule demands.

The world has changed since 1912. With the rapid evolution of technology, new opportunities are opening up each day. At MATC, we prepare students to take advantage of those opportunities, and to make the world a better place for all of us.

Dr. Beverly S. Simone
District Director
Mission Statement

The mission of Madison Area Technical College is to provide innovative leadership to help build a community which is socially and economically strong, flexible and competitive in a changing global marketplace.

The college will provide a comprehensive curriculum which includes vocational, technical, liberal and basic studies.

The college will continually direct its resources to ensure accessible, quality education to enable current and prospective students to become productive, civic-minded citizens.

Equal Opportunity Policy and Affirmative Action Commitment

It is the policy of the district not to discriminate on the basis of a person's age, race, creed, color, handicap, marital status, sex, national origin, ancestry, sexual orientation, arrest record or conviction record in its educational programs, admissions, activities or employment policies.

Services, financial aid and other benefits of the Wisconsin Board of Vocational, Technical and Adult Education are provided on a non-discriminatory basis, as required by the Civil Rights Act of 1964.

The Area Vocational, Technical and Adult Education District No. 4 is in full compliance with Title VI and VII of the 1964 Civil Rights Acts, Executive Order 11246, Title IX of the 1972 Education Amendments, Equal Pay Act, Age Discrimination in Employment Act, Title VII and Title VIII—Public Health Service Act, Section 504—1973 Rehabilitation Act, Wisconsin Fair Employment Law, and equal opportunity ordinances, Madison, WI.

Inquiries regarding compliance with the above-named regulations may be directed to the Affirmative Action Office, Madison Area Technical College, 3550 Anderson Street, Madison, Wisconsin 53704 (phone 608/246-6045) and to the Assistant Director—Student Services (phone 608/246-6091).

Individuals applying for or receiving assistance through this agency who believe that discrimination on the ground of race, color or national origin is being practiced by the Wisconsin Board of Vocational, Technical and Adult Education may file a written complaint with the state agency, the federal agency or both.

Any written complaint is to be signed by the complainant, shall give in detail the time, place, pertinent facts and circumstances of the alleged discrimination and shall be submitted to the State Director, Wisconsin Board of Vocational, Technical and Adult Education, 310 Price Place, P.O. Box 7874, Madison, WI 53707.
Overview

Degrees

Associate in Applied Science

This degree is designed to lead the student directly to employment in a specific career. It is awarded upon successful completion of occupational programs where technical courses emphasize "applied sciences" (those skills that apply directly to a certain field) in the study of subject areas like computer technology, public safety, industrial production, business techniques, food services, agriculture or health. In some instances, particularly in health-related fields, this degree is a prerequisite for taking a licensing examination.

Associate in Applied Arts

This degree is designed to lead the student directly to employment in a specific career. It is awarded upon successful completion of occupational programs where technical courses emphasize creative techniques and activities in the study of subject areas like commercial art, photography, interior design or occupational therapy.

Associate in Arts and Associate in Science Liberal Studies degrees

Either of these degrees is designed for students who wish a broad general education which, in some instances, can be beneficial when seeking employment. It is awarded upon successful completion of program requirements and electives comprising 64 semester credits. The Associate in Science degree is earned by students whose liberal studies coursework emphasizes mathematics and science. The Associate in Arts degree is earned by students whose liberal studies coursework emphasizes the social sciences and humanities.

Vocational diploma

Vocational diploma programs are designed to prepare students in the basic skills necessary for employment. After satisfactory completion of any of these programs, a less-than-one-year, one-year or two-year vocational diploma is granted.

Other programs

College Transfer program

The college transfer program provides courses comparable and corresponding to those generally required in the first two years of programs offered by four-year colleges and universities, thereby enabling students to transfer to a four-year institution.

Students who pursue a college transfer program are advised to schedule courses that meet the requirements of their chosen four-year college. They should contact the college or university to which they intend to transfer for advice on specific courses they should take for entering their major fields. Some of the courses in associate degree programs are accepted for transfer by certain institutions, but these courses vary from program to program and from accepting institution to institution. Courses that are applicable for college transfer should be discussed at the time of registration.

Qualified students in associate degree technical programs, with consent of the dean/chairperson of the particular division, may substitute courses from the college transfer program which satisfy technical program requirements.

Vocational-Technical Developmental program

Courses in this program are designed to serve one of two functions for students: 1) To provide classes which remove deficiencies in past training, and therefore, enable students to be eligible for the vocational or technical programs of their choice; or 2) To strengthen and refresh academic competencies to better ensure success in vocational or technical studies.
Community involvement

Planning and Economic Development

MATC’s Planning and Economic Development office assists in the delivery of instructional support services in the areas of research, planning and economic development. It also submits projects to obtain federal, state and/or local funding to support district programs and services that will help individuals, communities and industries improve productivity by developing a pool of skilled workers. Activities include:

- Research to assess the needs of business and industrial employers and the community for District 4 programs and services.
- Working with communities to enhance economic growth.
- Assisting employers by developing tailored, employer-specific training programs and services.
- Providing assistance to local firms to help them solve technical problems.
- Surveying the changing needs of business and industry, and developing programs and services to cope with technological changes.
- Providing basic skill programs and developing tailored basic skill industry programs to help those already employed to improve job stability and upward mobility.

The Planning and Economic Development office also delivers technical assistance through its Small Business Training and Assistance Center (SBTAC). The government procurement assistance includes:

- Identification of products and services by government code—utilizing a list of more than 48,000 approved item descriptors, the SBTAC can identify the precise government codes that correspond to a company’s products and/or services.
- Complete matching capabilities—through an electronic governmental purchasing database, the SBTAC matches area businesses with advertised, unadvertised, and small purchase government bidding opportunities.
- Specifications and standards—the SBTAC offers 48-hour turn-around in providing federal and military specifications and standards, acquisition regulations, manufacturer’s catalogs, GSA supplier price lists, and DODISS indices.
- Past bidding history—the SBTAC enables companies to view the government’s past purchases of their products and/or services, eliminating guesswork in the government bidding process.
- Complete government agency information file—the SBTAC’s automated system continually researches government agencies nationwide in order to maintain a current and comprehensive database of federal market opportunities.

Outreach Services and adult continuing education

The primary focus of MATC’s Outreach Services office is on adult continuing education beyond traditional courses associated with formal classroom activities. Its center of operations is at the Downtown Education Center and its activities are district-wide in scope.

By cooperating with industry and business, public and private agencies, community groups and other institutions of learning, MATC is able to sponsor and develop a wide variety of institutes, seminars and workshops. Objectives and goals reflect the desires and concerns of the populations served. Need assessments and other research activities are carried out periodically to determine new offerings and to evaluate on-going ones. The Outreach Services office seeks and welcomes contacts, requests, inquiries and suggestions in its effort to expand and become more effective in its offerings in the adult continuing education area.

Examples of programs offered through the Outreach Services office include:

- Tax workshops—personal, business, corporate, etc.
- Skill upgrading workshops—modern data processing systems, computer desktop publishing, human relations, etc. (available on the job site or at MATC).
- Small business workshops—quality control, statistical control, etc.
- Workshops for property assessors, municipal clerks, and treasurers.
- Workshops for secretaries and office personnel.
- Seminars for owners and managers of apartment buildings.
- Workshops of general public interest—home buying, home management, basic home repair, fitness, career planning, financial planning, parenting, nutrition, etc.
- Self-improvement and life enhancement workshops.

Downtown Education Center
Accreditation and Memberships

Accreditation

Madison Area Technical College, including its campuses in Fort Atkinson, Madison, Portage, Reedsburg and Watertown, is accredited by the:

- Wisconsin Board of Vocational, Technical and Adult Education
- North Central Association of Colleges and Schools
- National League for Nursing
- Wisconsin State Board of Nursing
- Commission on Dental Accreditation of the American Dental Association
- American Association of Medical Assistants
- American Dietetic Association
- Council on Medical Education of the American Medical Association
- American Occupational Therapy Association
- American Society of Clinical Pathologists
- American Society of Medical Technologists
- American Veterinary Medical Association
- National Shorthand Reporters Association
- Wisconsin Department of Health and Social Services Barbering Division
- State of Wisconsin Educational Approval Board (for the education of veterans and war orphans)

Memberships

MATC holds memberships in the:

- American Association of Community and Junior Colleges
- American Council on Education
- American Education Association
- American Technical Education Association
- American Vocational Association
- Association of Community College Trustees
- Council of North Central Community-Junior Colleges
- Greater Madison Chamber of Commerce
- League for Innovation in Community Colleges
- NCHEMS (Higher Education Management)
- North Central Association of Colleges and Schools
- Wisconsin Vocational Association
- Wisconsin Education Association
OVERVIEW

Facilities

Madison

Five locations in Madison currently house the post-secondary programs offered by Madison Area Technical College. Those locations are:

- Truax Campus, 3550 Anderson Street
- Fire Service Education Center, 1750 Pearson Street
- Commercial Avenue Education Center, 2125 Commercial Avenue
- Downtown Education Center, 211 No. Carroll Street
- South Madison Education Center, 1602 South Park Street

Satellite campuses

Area Vocational, Technical and Adult Education, District No. 4 satellite campuses are located in Fort Atkinson, Portage, Reedsburg and Watertown. Their primary focus is on flexibility. Based upon input from advisory committees and through visits and communications with local community leaders, satellite campuses attempt to meet the special needs of local business, industry and agriculture. The satellite campuses offer a limited number of degree programs. The satellite campus locations are:

- MATC–Fort Atkinson, 827 Banker Road, Fort Atkinson, WI 53538
- MATC–Portage, 330 Collins Street, Portage, WI 53901
- MATC–Reedsburg, 300 Alexander Avenue, Reedsburg, WI 53959
- MATC–Watertown, 1300 West Main Street, Watertown, WI 53094

Tax-supporting towns, villages and cities in District 4

The following towns, villages and cities (in whole or in part) financially support the Area Board of Vocational, Technical and Adult Education, District No. 4:

Adams County
- Towns: Dell Prairie, Jackson, New Haven, Springville

Columbia County
- Towns: Arlington, Caledonia, Columbus, Courtland, Dekorra, Fort Winnebago, Fountain Prairie, Hampden, Leeds, Lewiston, Lodi, Lowville, Marcellon, Newport, Otsego, Pacific, Randolph, Scott, Springfield, West Point, Wyocena
- Villages: Arlington, Cambria, Doylestown, Fall River, Friesland, Pardeeville, Poynette, Randolph, Rio, Wyocena
- Cities: Columbus, Lodi, Portage, Wisconsin Dells

Dane County
- Villages: Belleville, Black Earth, Blue Mounds, Brooklyn, Cambridge, Cottage Grove, Cross Plains, Dan, Deerfield, DeForest, Maple Bluff, Marshall, Mazomanie, McFarland, Mount Horeb, Oregon, Rockdale, Shorewood Hills, Verona, Waunakee
- Cities: Madison, Middleton, Monona, Stoughton, Sun Prairie

Dodge County
- Towns: Calamus, Clyman, Elba, Emmet, Fox Lake, Lebanon, Lowell, Portland, Shields, Westford
- Village: Randolph
- City: Watertown

Geographic area of District 4

The Area Vocational, Technical and Adult Education, District No. 4 includes: Columbia County less the portion of the School District of Markesan; Dane County less the portion of the School District of Markesan; Sauk County less the portion of the School District of Hillsboro, the School District of Ithaca and the School District of Weston; plus the portion of the School District of Wisconsin Dells in Adams County; the Columbus School District, the Randolph School District, the Waterloo School District and the Watertown Unified School District in Dodge County; the School District of Belleville, the School District of New Glarus and the Oregon School District in Green County; the Wisconsin Heights School District, the Mount Horeb Area School District and the River Valley School District in Iowa County; the School District of Reedsburg, the School District of Wisconsin Dells and the School District of Wonewoc and Union Center in Juneau County; the River Valley School District and the School District of Wonewoc and Union Center in Richland County; and the Oregon School District and the Stoughton Area School District in Rock County.
Green County
Villages: Belleville, Brooklyn, New Glarus

Iowa County
Towns: Arena, Clyde, Dodgeville, Moscow, Ridgeway, Wyoming
Village: Arena

Jefferson County
Towns: Aztalan, Cold Spring, Concord, Farmington, Hebron, Ixonia, Jefferson, Koshkonong, Lake Mills, Milford, Oakland, Palmyra, Sullivan, Sumner, Waterloo, Watertown
Villages: Cambridge, Johnson Creek, Sullivan
Cities: Fort Atkinson, Jefferson, Lake Mills, Waterloo, Watertown, Whitewater

Juneau County
Towns: LIndina, Lyndon, Seven Mile Creek, Summit, Wonewoc
Villages: Union Center, Wonewoc

Marquette County
Towns: Buffalo, Crystal Lake, Douglas, Harris, Mecan, Montello, Moundville, Neshkoro, Newton, Oxford, Packwaukee, Shields, Springfield, Westfield
Villages: endeavor, Neshkoro, Oxford, Westfield
City: Montello

Richland County
Towns: Buena Vista, Ithaca, Westford
Village: Lone Rock

Rock County
Towns: Porter, Union

Sauk County
Towns: Baraboo, Bear Creek, Dellona, Delton, Excelsior, Fairfield, Franklin, Freedom, Greenfield, Honey Creek, Ironton, LaValle, Merrimac, Prairie du Sac, Reedsburg, Spring Green, Sumpter, Troy, Washington, Westfield, Winfield, Woodland
Villages: Ironton, Lake Delton, LaValle, Loganville, Merrimac, North Freedom, Plain, Prairie du Sac, Rock Springs, Sauk City, Spring Green, West Baraboo
Cities: Baraboo, Reedsburg, Wisconsin Dells

School Districts within District 4

Area Board

Madison Area Technical College functions within the system of Vocational, Technical and Adult Education in the state of Wisconsin. The college is operated under the direction of the Area Board of Vocational, Technical and Adult Education, District No. 4. The board consists of nine members—two employers, two employees, three members-at-large, an elected official and a school district administrator.

The members of the board are appointed by a board appointment committee composed of the county board chairpersons of the counties included, all or in part, in District 4. The chairperson of the most populous county serves as chairperson of the appointment committee. Representation on the board is apportioned throughout the district as set forth in section 38.108, paragraph 2 of Wisconsin statutes, 1982. Current board members are:

Employer Members
James Hasler, O.D.
Carole McGuire

Employee Members
Linda Christman
Donald Fry

Members-At-Large
J. Robert Curtis, D.V.M.
Helen Henry
Manuel Lugo

Elected Official
Jean C. Ellarson

School District Administrator
Richard Magnuson, Ed.D.
Sauk Prairie School District
Admissions

Admissions requirements

Madison Area Technical College is open to all adults and to all youths 16 years of age and older who are capable of profiting from instruction. Post-secondary programs are open to: 1) applicants who have graduated high school, 2) applicants who have passed high school equivalency tests, or 3) mature applicants who, through work experience, can prove that they are capable of mastering the subject matter. High school equivalency is interpreted to mean a passing score on all parts of the State of Wisconsin High School Equivalency Test or a passing result on the G.E.D. test; a photocopy of the G.E.D. certificate or Wisconsin High School Equivalency Test results are required in these cases.

For particular programs within the college, admission requirements vary depending on aptitude for the curriculum, available student stations, and a reasonable probability of academic success.

A current application form indicates admission testing policies; specific examinations are required for certain programs. A student's application is evaluated on the basis of a combination of high school and other transcripts, work experience, entrance examination results, and an interview, if it is deemed necessary.

It is possible for students to be concurrently enrolled in high school and in classes offered by Madison Area Technical College. In all cases, students must be 16 years of age or over at the time classes start, and the student must have parent or guardian permission and consent of the high school principal. Costs for those attending in lieu of high school, under the provisions of Section 118.15 of the Wisconsin Statutes, are charged in accordance with the law.
Admissions Procedures

Applications for post-secondary programs are accepted beginning the third Monday in November (except when Wis. Act 336 applies) for the following school year. Application forms may be obtained from local high school counselors or by writing the Admissions Office, Madison Area Technical College, 3550 Anderson Street, Madison, WI 53704. Applicants currently enrolled in high school must have completed six semesters prior to making application. The closing date for advance application by mail for admission in fall semester is August 1. After this date, new applicants may apply in person for programs where openings are available.

Whenever possible, the applicant should have the high school records with the application a transcript of high school courses and credits. If currently enrolled in high school, the applicant should also send a listing of senior year courses and credits. If a graduate, the applicant should arrange to supply a complete high school transcript as well as a transcript of any additional education. These should be sent by the institution attended directly to the college. If the applicant has taken the ACT, although it may not be required, please have the results sent to Madison Area Technical College.

Depending on program choice, the applicant is notified of a date for additional tests when a complete application and transcript have been received. Evaluation of application, transcript, and test results are made by the program dean/chairperson, and the applicant is notified of the status of his/her application. Those who do not qualify for the program of their choice may consult with a counselor to consider alternatives.

Board policy mandates that qualified applicants are accepted on a first-come, first-served basis. If the number of qualified applicants with complete credentials on file on the first day of accepting applications exceeds the number which can be taken in a program, a lottery shall be held for selection of students.

Fifty percent of available student stations are allocated to MATC students who are presently enrolled and who have earned a minimum of 12 credits with 2.0 GPA and a grade of "C" in all courses, including specific required program courses identified by the deans. For example, the dental hygienist program may require four of the twelve credits to be in science courses or the associate degree nursing program may require two science courses, Anatomy and Physiology I, II or Microbiology.

It is imperative that applicants inquire about specifics through the individual Division offices where programs are offered, as program requirements are updated periodically.

Admissions Tests

Certain programs require testing and others do not. A current application form indicates testing requirements. Upon receipt by the college of an application form and transcripts, notice of a test date is sent to the applicant for programs where special tests are required (these are not the ACT or SAT tests).

Students who wish their pre-admissions test results interpreted may consult with a counselor. Assessment and orientation programs are provided for the purpose of determining appropriate course placement. Additional interest and aptitude testing is available for students interested in developing educational and occupational plans.

Health Forms and Physical Examinations

Health Occupations students are required to have a physical examination and the results mailed to the Registrar by their physicians prior to registration. Forms are provided. If the results of the physical examination have not been received by the Registrar prior to registration, a student may be allowed to register at the discretion of the appropriate dean/chairperson. Under no circumstances, however, are students assigned to the clinical area until this requirement is met.

All Health Occupations students must show evidence of measles immunity prior to clinical affiliation. In addition, specific programs in the Health Occupations Division may recommend that students be immunized against hepatitis after enrollment. This vaccine is available through the Student Health office.

Due to the inherent risk of exposure to harmful agents and the requirements of some affiliating agencies, all Health Occupations Division students are required to show evidence of health insurance coverage prior to their assignments for clinical experience. The limits of such coverage shall be at least as comprehensive as those of the student health insurance available through MATC.

Since Health Occupations individuals are subjected to varying degrees of physical demand and/or mental stress, and all students are expected to perform at a predetermined level of competency to be eligible for graduation, it is recommended that applicants who question their ability to meet these requirements consult with the appropriate program administrator.

Barber students must pass the physical requirements set up by the Wisconsin State Board of Health.
International students

Madison Area Technical College is approved for the attendance of non-immigrant students under the Immigration and Nationality laws and the issuance of I-20 forms. All visa students are accepted on academic probation. Non-immigrant foreign applicants must:
1. Demonstrate a level of proficiency in English to pursue the program of their choice;
2. Have an MATC district resident as a sponsor;
3. Sign an MATC training agreement;
4. Submit English-worded transcripts;
5. Submit TOEFL or Michigan Test scores;
6. Obtain an I-20AB or I-20MN visa; and
7. Deposit $7,000 toward semester fees.

Transfer of credits

Students transferring from other institutions may have their records evaluated by the division dean/chairperson to receive permission to waive certain program requirements provided the courses being transferred are equivalent in nature, and satisfactory grades were received.

At the discretion of the division dean/chairperson, students previously enrolled at other institutions of higher learning who are no longer acceptable for academic reasons at such institutions, or students who were on probation upon leaving such institutions, may be accepted on a strict probationary status for one semester. Such students must achieve a grade point average of 2.0 or better by the end of the semester in order to continue.

College transfer

Students enrolled in college transfer–liberal arts are limited to acquiring 72 credits at the college for the following reasons: 1) the Wisconsin State Board of Vocational, Technical and Adult Education has a policy which limits enrollment in liberal arts transfer programs to 25 percent of the total post-high school full-time equivalent enrollment; and 2) a maximum of 72 credits are transferable to most other institutions of higher learning.

Registration

Registration for classes is conducted after students have been accepted into a program. Registration is on a scheduled basis by program and alphabetical name of students. Letters are sent informing students about the specifics of registration. Mail and in-person registration are conducted separately for part-time students enrolling in degree and non-degree credit classes. These classes are listed in the MATC Timetable and/or in newspapers.
Financial Information

Fees

Current fees

Information on current fees is published in each semester’s Timetable. The following are fees for which students are responsible:

Advance reservation fee

An advance reservation fee of $50.00 is due within 15 days after notification of acceptance. The receipt for this fee is the student’s assurance of a place in the program or a place on the waiting list for the program in which he or she has been accepted. If a student does not withdraw prior to classes commencing, the advance reservation fee applies toward program and material fees. Prior to the semester of entry, $30.00 of the fee is refundable if the student notifies the college of cancellation in writing before August 1 for the first semester and before December 6 for the second semester. If a student pays the advance reservation fee and program and material fees and withdraws within one month prior to the beginning of classes, the advance reservation fee is non-refundable.

Field trip fee

The cost of field trips is paid at registration time. Refunds are not granted for non-participation in field trips unless the student officially withdraws prior to the field trip.

Graduation fee

At the time of registration, a $15.00 graduation fee is paid by each student if they anticipate graduating at the end of the semester. If the student is dropped for academic, medical or other reasons, or withdraws of his/her own volition, this fee is refunded upon request. Approval for non-attendance at graduation does not eliminate or reduce payment of this fee.

Late registration fee

New and continuing students in full-time post-secondary programs who fail to register and pay their fees at the appointed registration time are charged an additional $20.00 late registration fee. This late registration fee is not applicable toward any other fees or charges and is non-refundable.

Non-resident fee

All out-of-state students and all foreign students are responsible for paying their own non-resident fee. In all cases, the individual student is responsible for proving his/her residency status.

Program and materials fees

Program and materials fees are established annually by the Wisconsin Board of Vocational, Technical and Adult Education according to Wisconsin state statutes.

Supplemental fee

A supplemental fee is charged all students enrolling in post-high school courses at MATC. This fee, which supports co-curricular activities, is not refundable unless the college cancels the course or the student withdraws before classes begin.

Textbooks and class materials

Students purchase their own textbooks and class materials as required.

Transcript fee

Students are entitled to three free transcripts. A charge of $1.00 is made for each additional copy.

Payment of fees

All fees are payable at the time of registration or deferred upon approval and signing of a fee arrangement. Registration is not complete until all fees are paid.

Fee arrangements

The Area Board of Vocational, Technical and Adult Education District No. 4 will allow students to defer payment of semester fees upon completion of a “fee arrangement.” A fee arrangement, a legally binding note, becomes official when signed by the student and a representative of the college.

Students may sign a fee arrangement only upon enrollment at least half-time (six credits per semester, three credits summer) and upon payment of a minimum of $100.00. Under extenuating circumstances, exceptions may be granted by the controller or his/her designee. A $10.00 processing fee is charged for each fee arrangement. All student grades and/or transcripts will be placed on hold until the fee arrangement is paid.

Fee arrangements shall normally be made due on the last day of the fourth week of the semester. An extension may be granted by the controller or his/her designee with total payment required at least 30 calendar days prior to the end of the semester.

Failure to officially withdraw from classes or being officially withdrawn from a class by an instructor for non-attendance does not relieve the student’s obligation for the fee arrangement.

Additional fee arrangements shall not be permitted for students who have previous financial obligations due the college. Exceptions may be granted by the controller or his/her designee based on extenuating circumstances. Financial aid funds will be applied toward payment as financial aid checks become available for disbursement.
FINANCIAL INFORMATION

Collection of fee arrangements receivable

1. The grades and transcripts of each student who signs a fee arrangement shall be placed on hold until all fees are paid.

2. Each student must pay all previous debts to the district before being allowed to register or sign a new fee arrangement. This requirement may be waived only by the controller or his/her designee.

3. Within 60 days after the start of the first or second semester of each school year, the Business office shall review all new fee arrangements to determine the portion of the unpaid balance that will be covered by financial aid.

For those students who are enrolled in school and have an unpaid fee arrangement, a letter shall be sent informing them of the amount due.

For those students who have an unpaid fee arrangement and have dropped from school, the Business office shall review each student account to determine if a refund per board policy may be due. If so, the information shall be sent to the controller for a final review and processing. If there is a balance due, the Business office shall send a billing to the student showing the amount due. If the amount due is unpaid within 30 days, a follow-up letter shall be sent. If the amount due is unpaid within 60 days, the account shall be referred to a collection agent or the district's attorney in accordance with policy number 1025.

“Hold” for indebtedness

Records and registration are withheld for students who fail to meet financial obligations that are levied by recognized college offices.

Refund policies

Refund policy for program, material, and non-resident tuition fees

If you plan to withdraw from a particular course, do so immediately. A single day can make a major difference in the amount of refund. Non-attendance does not constitute a cancellation of registration. Except in cases of cancellation or discontinuance of courses, or when the student is sponsored, the student must request the refund within the stipulated time period. The district may establish a charge of not more than $3.00 per course to be deducted from any refund to defray processing costs. Financial aid applicants and recipients may have their refunds delayed depending upon their financial aid status.

Stop payment of a check does not constitute a formal cancellation. For stop payments, there will be a returned check fee of $8.00 and the registrant will be held liable for the fee until the date of official cancellation. Allow four weeks from the date of cancellation to receive a full refund of payment.
Refund policy for all courses regardless of length
1. If the district cancels a course, the refund is 100 percent of all (program, materials and non-resident tuition) fees paid.
2. If the district discontinues or cancels a course during the 80 percent refund period, the refund is 100 percent of all (program, materials and non-resident tuition) fees paid.

Refund policy for courses which are scheduled to meet a semester or longer

<table>
<thead>
<tr>
<th>Courses which are scheduled</th>
<th>Refund amount; 80% of total fees due</th>
<th>60% of total fees due</th>
</tr>
</thead>
<tbody>
<tr>
<td>to meet:</td>
<td>first 14 calendar days</td>
<td>15-28 calendar days</td>
</tr>
<tr>
<td>a semester or longer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than a semester</td>
<td>less than 11% of hours</td>
<td>11-20% of potential hours</td>
</tr>
</tbody>
</table>

3. Zero percent of total fees due after more than 20 percent of the total potential hours of instruction have been completed.

Financial aid

A comprehensive financial aid program is offered to provide assistance to students who would otherwise be unable to afford their education. Thus, the opportunity for education is extended to qualified men and women in financial need through loans, grants and work-study employment.

The financial aid program is administered on the principle that financial assistance should be viewed only as supplementary to the efforts of the family. Therefore, in order to determine need and make awards fairly, the parents of aid applicants are required to complete a financial aid form. In the case of a student who is clearly self-supporting in accordance with federal guidelines, eligibility is based on the financial resource of the student and/or spouse. All financial aid awards are based on the applicant's financial need as determined by the Financial Aid office.

Application procedures

It is recommended that incoming freshmen apply for financial aid by April 15 of the year preceding their enrollment in school. Application forms and instructions are available from high school counselors or from the Financial Aid office. Continuing or transfer students should also apply for assistance by April 15. Students who apply after this date will be considered for all types of aid, but some funds may not be available.

Students who have received assistance previously must reapply each year in order for the award to be renewed. Application forms and instructions are available from the Financial Aid office.

To be considered for financial aid, the following information must be on file in the Financial Aid office:

1. Pell Grant Student Aid Report: This report is received by the applicant after the Wisconsin Financial Aid Form is completed by the student and processed by the College Scholarship Service and the Pell Grants Program. The applicant must submit a Student Eligibility Report to the Financial Aid office.
2. Financial Need Analysis Report: This report is forwarded to the Financial Aid office after the Wisconsin Financial Aid Form is completed by the student and processed by the College Scholarship Service.
FINANCIAL INFORMATION

3. Copy of the student's/spouse's federal income tax form: In the case of a dependent student, a copy of his or her parents' prior year federal tax form is required, in addition to the student's prior year tax form.

4. Evidence that the applicant is enrolled in an approved associate degree, college transfer or vocational diploma program: Enrollment in courses without acceptance into an eligible program does not qualify a student for financial aid.

Types of aid

Pell Grant
This is a federal program designed to provide grants to students based on financial need. A maximum award is determined annually by federal guidelines. Grant awards become part of a student's financial aid package. To receive a 100 percent award, the student must be enrolled in 12 or more credits. To receive a 75 percent award, the student must be enrolled in 9, 10 or 11 credits. To receive 50 percent, the student must be enrolled in 6, 7 or 8 credits.

Supplemental Educational Opportunity Grant (SEOG)
Federal grants, as provided under the Higher Education Act, are available to students on the basis of financial need. The grant becomes part of the student's financial aid package. Students must be enrolled at least half-time.

Wisconsin Higher Education Grant (WHEG)
The amount of the grant is calculated by the Wisconsin Higher Educational Aids Board and is based on financial need. This grant becomes a part of the financial aid package developed by the Financial Aid office. Students must be Wisconsin residents and enrolled at least half-time.

Wisconsin Guaranteed Student Loan Program
Students who are enrolled at least half-time (6 credits or more) may be able to borrow up to $2500 per year. Terms and conditions of GSL loans often change. Contact Financial Aid for current regulations and procedures.

Work Study
Under provisions of the Higher Education Act, employment opportunities are available to students on the basis of financial need. The amount they are eligible to receive becomes part of their financial aid award. Students must be enrolled at least half-time.

Minority Student Grant Program
This program is designed to improve retention and increase graduation opportunities for second-year students enrolled in a two-year program. Students must show financial need and be enrolled at least half-time (6 credits). The Minority Student Grant Program provides financial assistance to Black, Hispanic, Native American, and Southeast Asian (Cambodia, Laos and Vietnam) students.

Native American Assistance Grant
Grants for Native American students are available through the Wisconsin Higher Educational Aids Board and the Bureau of Indian Affairs. The grant amount is based on financial need. Financial aid application procedures, as previously outlined, must be followed in determining financial need. In addition, a student must complete a separate Indian Scholarship application for the purpose of certification by the Bureau of Indian Affairs as to the degree of Indian blood. A student must be enrolled full-time to receive a Bureau of Indian Affairs Grant and half-time to receive a State Indian Assistance Grant.

Talent Incentive Grant (TIP)
This program supplements the WHEG program and is targeted to serve disadvantaged and/or minority students. Contact the Financial Aid office for further information.

Veteran's Educational Benefits—Federal
To qualify for monthly educational benefits through the Veteran's Administration, a veteran must be enrolled in an approved associate degree or vocational diploma program at least half-time. Most programs of study at MATC are approved for veteran's benefits by the Wisconsin Educational Approval Board. To be eligible for maximum benefits, a veteran must be enrolled in a minimum of 12 credits in an approved associate degree program or at least 22 hours per week in a vocational diploma program dominated by shop practice. For some programs, where classroom and theoretical instruction is dominant, only 18 hours per week may be required for full benefits.
Sons, daughters, spouses and surviving spouses of deceased veterans, totally and permanently disabled veterans or MIA as a result of military service may be eligible for VA monthly educational assistance.

It is the responsibility of the student receiving veteran's educational benefits to notify the MATC Office of Veteran's Affairs of any changes in enrollment status or withdrawal. Additionally, all veterans and dependents must make satisfactory progress in their programs of study. (See Veteran's Administration reporting.)

Veteran’s Educational Benefits—Wisconsin
Students who were Wisconsin residents upon entry into the military service, and who served during the Vietnam Era, may be eligible to receive, each academic year, an education grant of up to $200 for a single veteran and $400 for a married veteran or one with dependents. These veterans must be enrolled full-time, and application must be made prior to the end of the enrollment period for which they are applying. Applications may be obtained from the MATC Office of Veteran’s Affairs.

Veterans enrolled less than full-time who entered the military service as residents of Wisconsin, or who have lived in Wisconsin ten continuous years, and who served during a qualifying wartime period, may be eligible, upon satisfactory completion, for reimbursement of tuition, fees and textbook costs. Contact a county veteran’s service officer for additional eligibility criteria and application. Note that application must be made within 60 days after the ending of each course. Unmarried widows, widowers, and minor or dependent children of deceased, qualified veterans, enrolled less than full-time, may also be eligible for this state reimbursement grant.

MATC Foundation
The MATC Foundation, established in 1973, operates for the purpose of aiding students and the college. Funds are provided by the generous contributions of alumni, staff, retirees, business, industry, foundations and friends. Short-term loans, grants and scholarships are available through the Foundation. Information regarding scholarships is available by contacting the Foundation office in Truax room 159Q. Deadlines for Foundation-sponsored scholarships are the last Friday in September for first semester and the last Friday in January for second semester.

Disbursement of financial aid funds
Grant and loan checks require two to six weeks for processing, depending on the source of the funds. Grant checks are disbursed once each semester, usually at the beginning of the term. When aid is ready to be disbursed, students will receive an authorization card by mail advising them to report to the Bursar’s office to pick up their check(s).

To receive aid, students will be required to produce: 1) authorization card; 2) current student I.D. card; and 3) current registration form. There will be no exceptions to this policy. Under no circumstances will financial aid checks be disbursed before classes begin or after a student is considered withdrawn for non-attendance or other reasons.

Conditions for repayment of grants
Repayment of grant funds, as a result of withdrawal, is related to the terms and conditions of the fee refund policy. Actual repayment of grant funds is applicable during the fees refund period. Continued eligibility for aid is outlined under “Satisfactory progress requirements.”

Formula for grant repayment

\[
\text{Amount of fees refunded to student} \times \frac{\text{Amount of grant received}}{\text{Approved cost of education}} = \text{Amount of grant to be repaid by student and restored to state or federal account}
\]

Time limits for receiving financial aid
Regulations require that financial aid be restricted to time increments. The maximum number of semesters for which a student making satisfactory progress each semester shall receive financial aid is indicated in the chart.
Satisfactory progress requirements

Government regulations require that recipients of financial aid make satisfactory progress in the programs for which they are enrolled. To maintain satisfactory progress, a student must maintain a grade point average of 2.0 or better and earn at least six credits each semester of their enrollment.

Failure to meet satisfactory progress requirements will result in financial aid probationary status during the next semester of enrollment. During the semester a student is on financial aid probation, the student must achieve satisfactory progress or lose eligibility for any financial aid, including loans and grants, for a period of two semesters.

Students who completely withdraw from school, or earn less than 1.0 grade point average for any semester, will lose their eligibility for financial aid. A student who becomes ineligible for financial aid can re-establish eligibility to apply by successfully meeting standards of progress requirements for a period of two semesters of enrollment while not receiving financial aid. During these two semesters of enrollment, a student must earn a minimum of six credits each semester and obtain a semester grade point average of at least 2.0 each semester.

Evaluation of standards of progress and appeals

Loss of financial aid eligibility may be appealed by the student. Such appeal must be placed in writing and submitted to the financial aid supervisor within 30 calendar days from the time the student is notified that he or she has lost financial aid eligibility. A review will be made, by the financial aid supervisor, of the individual's situation to determine continued eligibility.

A student may appeal the outcome of this determination. Such appeal must be made in writing to the Standards of Progress Review Committee within 30 calendar days from the time the decision was made by the financial aid supervisor. The Standards of Progress Review Committee shall be appointed by the Assistant Director--Student Services. A decision on an appeal shall not conflict with state or federal regulations.

Veteran's Administration reporting

Student veterans who fail to obtain a satisfactory grade point average of 2.0 or better upon completion of their initial semester of enrollment, or a cumulative satisfactory grade point average of 2.0 upon completion of any given semester, are placed on academic probation. Failure to achieve a satisfactory grade point average of 2.0 or better for the subsequent probationary semester results in the student's name being reported to the Veteran's Administration for unsatisfactory progress.

The reporting of unsatisfactory progress results in the immediate suspension of the affected student's educational benefits pending administrative review by the Veteran's Administration.
Access to student records

Madison Area Technical College, to be in compliance with the Family Educational Rights and Privacy Act of 1974 (Buckley Amendment), considers the following to be directory information and may release such information to anyone who requests: name, address, telephone listing, date of birth, major field of study, participation in officially-recognized activities and sports, weight and height of members of athletic teams, dates of attendance (which includes credits enrolled in each semester), total credits completed toward a degree, dates of withdrawal from courses or programs, degrees and awards received, and the most recent previous educational agency or institution attended.

Students have the right to inform MATC that any or all of the above information should not be released without their prior consent. Students who wish to do this are to report to the registration office within 30 days from time of enrollment to fill out the necessary form revoking any or all of the public information listed. Revocation remains in effect until the student modifies it (including after the student has left the college).

In accordance with this Act, students have the right to inspect, review and challenge the contents of their educational records and to request corrections to inaccurate or misleading data contained in their records, or to submit an explanatory statement for inclusion in their records if the outcome of a hearing is unsatisfactory.

Student educational records are maintained and kept in the office of the Registrar. All requests to inspect or review one's educational records, and to obtain copies thereof, should be made there.

Records placed on "hold" for individual indebtedness to the college are not released until cleared of the obligation. No personally identifiable information from college records is disclosed by the college without each student's prior written consent, except when prior written consent is not required by the Act.

Social security number

Social security numbers are used for identification of student records and are kept in strict confidence. Failure to furnish this voluntary number may delay processing and the maintenance of files while a number is being assigned.

Transcripts

The student's record is confidential and is not released from the college except by the signed request of the student. Each student is entitled to three free transcripts. A charge of $1.00 is made for each additional transcript.

Grading

Grades and grade reports

Grade reports are issued at mid-term and two weeks after the end of each semester. Grade reports are mailed directly to students if all financial obligations have been met. An additional student copy may be obtained from the division dean/chairperson. Grades are recorded at the end of each semester on a permanent transcript on the following basis:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>4</td>
</tr>
<tr>
<td>AB</td>
<td>3.5</td>
</tr>
<tr>
<td>B</td>
<td>3</td>
</tr>
<tr>
<td>BC</td>
<td>2.5</td>
</tr>
<tr>
<td>C</td>
<td>2</td>
</tr>
<tr>
<td>D</td>
<td>1</td>
</tr>
<tr>
<td>F</td>
<td>0</td>
</tr>
<tr>
<td>L</td>
<td>Incomplete</td>
</tr>
<tr>
<td>W</td>
<td>Withdrawal</td>
</tr>
<tr>
<td>X</td>
<td>Course still in progress</td>
</tr>
<tr>
<td>Au</td>
<td>Audit</td>
</tr>
</tbody>
</table>

Note: Missing a final examination without notifying the instructor and without having a satisfactory excuse results in an automatic "F" on the exam.

Incompletes

A grade of incomplete is given if a student has done passing work, and because of illness or major cause beyond the student's control, fails to complete the course requirements. Incompletes must be made up by the end of the next semester or the grade may change to an "F." No student is allowed to graduate without the removal of all incompletes.
Health Occupations: In courses with a clinical component, the student may be given an incomplete if the deficiencies in clinical performances are such that the instructor believes they may be corrected in the sequential course which has a clinical component. When the identified deficiencies are corrected, the student is given a grade for the course. If the deficiency in clinical performance is not corrected by the end of the sequential course which has a clinical component, the instructor will change the grade to an "F."

Grade point average

Grade point averages are figured on a 0-4 scale with 4 credit points granted for "A," 3.5 credit points for "AB," 3 credit points for "B," 2.5 credit points for "BC," 2 credit points for "C," 1 credit point for "D," and 0 credit points for "F" and "I."

If any course is repeated during continued enrollment, the higher grade is recorded on the permanent academic record, and the lower grade is deleted. Both courses are used to calculate grade point average.

To calculate your GPA, divide the total grade points received for one semester by the number of credits taken that semester. Example: you enrolled for 16 credits this semester and you receive 4 credits of "A," 4 credits of "B," 4 credits of "C," and 4 credits of "D." Your grade points are $(4 \times 4) + (4 \times 3) + (4 \times 2) + (4 \times 1) = 40$ total grade points. Your GPA for the semester is $40$ divided by $16 = 2.50$.

All students are required to maintain a current and cumulative grade average of 2.0 ("C" average). If your semester grade average is less than 2.0, it is recommended that you make an appointment with your instructors, and if necessary, the program dean/chairperson to discuss your academic record. Achieving less than a 2.0 grade average at the end of a semester may result in probationary action according to the Academic Probation and Dismissal Policy.

Dean's List

Honor letters are sent to students and made public for those who are enrolled in at least six credits and who have completed a News Information Card. High honors are assigned to those students (6 credits or more) with a semester grade point average of 3.50 or better for the preceding semester. Honors are assigned to those students (6 credits or more) with a semester grade point average of 3.0 through 3.49 for the preceding semester.
Under the provisions of Chapter 51, Laws of 1961, the Wisconsin Board of Vocational, Technical and Adult Education authorizes local boards of vocational and adult education to grant vocational diplomas and associate degrees in the appropriate areas to students who successfully complete one and two years of post-high school technical level instruction.

**Associate degrees** are granted to students who successfully complete the two-year college transfer programs or the two-year technical programs.

**Diplomas** are issued to students who successfully complete one-year to two-year vocational programs.

**Certificates** may be issued to those who have completed special courses of study.

Associate degrees or diplomas are issued to students who complete the prescribed curriculum both in hours of attendance and in terms of achievement, participate in graduation exercises, have obtained satisfactory achievement ("C" or 2.0 grade point average) in their major field subjects, have maintained an overall "C" or 2.0 grade point average, and are recommended by the department instructors and the dean/chairperson of the division.

Certificates of completion are issued to students who attain a G.P.A. of 2.0 or better in their major field subjects and have an overall G.P.A. of less than 2.0.

Certificates of attendance are issued to students who attain a G.P.A. of less than 2.0 in their major field subjects. The overall G.P.A. is of no significance for attendance certificates.

Students who had terminated their attendance for a semester or more are required to meet the current graduation requirements of the program in which they re-enrolled.

Associate degrees, diplomas and certificates are granted at the end of each semester and summer school. Students who receive incompletes or have other deficiencies to remove from their records are granted their associate degrees, diplomas, or certificates at the end of the semester during which all obligations have been satisfied.

**Scholastic residency**

At least one-half of the credit requirements necessary for obtaining a diploma or an associate degree in any program must be taken at the college (see advanced standing and transfer of credits). Scholastic residency mandates that the student be registered in and satisfactorily complete applicable program courses in the semester in which he/she is completing the appropriate program requirements. Any exception to this mandate shall be approved in writing by the dean/chairperson of the division in which the program is offered.
A student may not request advanced standing by testout for any course during the semester in which he or she has registered for that course without the permission of the division dean/chairperson. The decision to grant advanced standing rests with the division dean/chairperson.

Students currently enrolled in vocational diploma programs who wish to transfer to associate degree programs may request evaluation of their completed courses on the same basis as indicated above.

A student may appeal an adverse decision, in writing, to an Advanced Standing Appeals Committee composed of the Assistant Director/Instructional Services, the Registrar, the dean/chairperson of the division, and an instructor of the particular instructional specialty. If the decision is adverse, the student may appeal to the District Director and the Area Board of Vocational, Technical and Adult Education, District No. 4.

**Attendance**

Students who will not be in attendance for their first class meetings must inform the appropriate dean/chairperson in writing. Extenuating circumstances arising on the first day of class which prevent attendance shall be made known to the division office. Failure to comply may jeopardize continued enrollment. Attendance is the responsibility of the individual student. In cases of absence, work must be made up by arrangement with the instructor. Missing a final examination without notifying the instructor and without having a satisfactory excuse results in an automatic "F" on the examination.

**Auditing courses**

A student may audit a course for no credit or grade with the consent of the division dean/chairperson. Selection of audit must be made at the time of registration. The same fee is charged as if for credit. A student taking a course for audit may not change to credit, nor can a student change from credit to audit after classes begin without the written permission of the dean/chairperson. The course is indicated as "Au" for audit on the transcript. An auditor must meet attendance requirements, participate in the classroom work and complete assignments, but may not take examinations.

**Credit for experiential learning**

Students may earn up to one-half of the credits required for an associate degree through evaluation of their experiential learning. Credit may be given for learning occurring outside the classroom which is firmly related to a particular program and academic procedure. Giving credit for experiential learning refers especially to learning which occurs in work settings, communities or self-directed accomplishments emphasizing performance over concept. The applicant should contact the Experiential Learning Advocate for guidance and aid in pursuing such credit. The office of the division dean/chairperson may also be contacted for further information.

**Outside work**

A maximum of twenty hours of outside work per week is suggested for the full-time student. This maximum may be too much for some students. When a student's academic work declines because of outside work, it is suggested that the work load be reduced. Financial aid is available to help students in need.

**Student employment by District 4**

Students employed by District 4 must carry a minimum academic load of six semester credits. District-employed students should understand that if their academic load falls below six semester credits, their employment with the district will be terminated. This does not apply to summer work. For summer employment, students must have been enrolled for a minimum of six semester credits during the spring semester and must indicate intention to enroll in the succeeding fall semester.

**Study load**

A full-time student in an associate degree program may take a maximum of eighteen credit hours. In some programs in the vocational studies division, when the study is largely confined to the classroom or laboratory, up to twenty credit hours may be taken. A student who is carrying a twelve-hour credit load or is in classroom attendance twenty periods per week is considered a full-time student.
Withdrawals

Non-attendance does not constitute a cancellation of a fee agreement arrangement. For your convenience, you may telephone your cancellation prior to the beginning of the course.

Official withdrawals

A student withdrawing from school at any time is required to schedule a conference with the program dean/chairperson or a counselor to complete Withdrawal and Course Change forms. Failure to do so may result in grades being recorded as failures. Official withdrawals are not granted during the scheduled semester final exam period. (See refund policy for applicable refund payment due.)

Withdrawal from a course

A student, with a dean/chairperson’s consent, may withdraw from a course with the withdrawal recorded on the transcript as follows: “W—Withdrawn, too soon to measure progress.”

Unless an adequate explanation is provided, a student who is absent for 16 consecutive calendar days (not class meetings) after the last class period attended may be withdrawn from that class with a grade of “W.” A student who is absent without an adequate explanation 25 percent or more of the total scheduled class periods may be withdrawn from that class. Re-admission after withdrawal is with the mutual consent of the division dean/chairperson and the instructor.

Health Occupations special policies

Clinical laboratory or affiliations

A student may be withdrawn from the clinical component of a nursing course at any time there is a status of failure to provide a “standard of care” as established by course objectives, basic nursing competencies, affiliating agency agreements and the Rules of Conduct of the Wisconsin Administrative Codes, Rules of Boards of the Department of Regulation and Licensing. This withdrawal may result in failure of the course and is reviewed by the dean of Health Occupations.

The same policy applies to any other program which has a clinical component in any other department or division of the college requiring affiliations.

Academic standards—Associate Degree Nursing program

A student must have obtained satisfactory achievement (“C” or 2.0) in major field subjects and support courses. A student must have a minimum of a “C” in theory and an “S” (satisfactory) in clinical practice to pass a course in the nursing area of instruction (510 courses).

Nursing course withdrawal

1) A student may repeat the same nursing course once;
2) a student who fails a nursing course or withdraws from the program may re-enroll. A student may re-enroll in the program only one time. The chairperson of Nursing and the faculty may make exception to the above policy in unusual circumstances.
Student Code of Conduct

MATC is a tax-supported institution which serves a large student body, many community groups and a large number of visitors. It is important for the school and its students that the conduct of all students be governed by a reasonable set of rules, and that these rules be enforced. Accordingly, each student is expected to comply with the general standard set out below and to be familiar with all rules and regulations. The following principles and rules apply to all students of Madison Area Technical College:

1. Students are expected to comply with all state statutes, city ordinances and college policies.
2. At all times, students are expected to conduct themselves in such a manner as not to interfere with the educational process at MATC.
3. Students are expected to conduct themselves in such a manner as not to endanger the safety or welfare of their fellow students.
4. Students must comply with the following school rules and may be suspended or expelled, or be liable to legal procedures as may be appropriate, for the following offenses:
   a) Obstruction or disruption of the normal operations of the college or activities authorized by the college.
   b) Physical or verbal abuse or detention of any person(s) on college property or at college activities when such endangers the health, safety or rights of such person(s).
   c) Theft or damage to property of the college or property of any visitor or member of the college community.
   d) Unauthorized entry to or use of college property or facilities.
   e) Use, possession or distribution of narcotic or illegal drugs, firearms, explosives, dangerous chemicals, etc. on college-owned or controlled property or at college-sponsored activities.
   f) Dishonesty (cheating, plagiarism, etc.) or knowingly furnishing false information to the college.
   g) Gambling as defined by law.
   h) Smoking or the use of tobacco products as prohibited by MATC policies.

Any violation of an MATC rule or policy may serve as a basis for one of the following actions: As a first step, a violation will be reported to the District Director or his/her designee who will determine what, if any, disciplinary action is appropriate. The District Director or his/her designee may temporarily suspend a student pending an investigation when the student’s continued presence might endanger the student or others. If the District Director or his/her designee determines that suspension or dismissal is appropriate, disciplinary action shall follow the Non-Academic Probation or Dismissal Policy.

Probation and dismissal

The District Board has several policies under which a student may be dismissed from the college:

1. Academic Dismissal: A student may be dismissed from a program for failure to achieve a 2.0 grade point average. (See academic probation and dismissal.)
2. Code of Conduct: Students failing to comply with the policies under the Student Code of Conduct may be suspended or dismissed in accordance with such policy.
3. Harassment: If a student violates the policies defined under “Harassment,” the student may be suspended or dismissed. (See Harassment policy. See also Non-academic probation and dismissal.)

Academic probation and dismissal

Probation
A student is placed on probation if less than a 2.0 (“C”) grade point average is achieved at the end of a semester of enrollment.

Dismissal
A student on probation may be dismissed from a program if less than a 2.0 grade point average is achieved, currently or cumulatively. At the discretion of the division dean/chairperson, a student may remain on probation if the chairperson is convinced that the student is capable of achieving a 2.0 cumulative grade point average at the end of the semester.

Students admitted on probation
A student admitted on probationary status may be dismissed from a program if less than a 2.0 grade point average is achieved at the end of the first semester of enrollment. Dismissed students may not enroll for the next succeeding semester or the next school year depending on the program in which they were enrolled.

In addition, the Health Occupations and Home Economics divisions have specific policies which apply to particular courses and programs. Copies of these policies are available from instructors and the division dean/chairperson upon request.
Non-academic probation or dismissal

1. When the administration and/or board has reasonable cause to believe that a student has pursued a course of conduct which should require suspension or dismissal, the student is informed of the specific charges in writing by registered mail or personal delivery thereof.

2. The student is notified in writing of the time and place of a hearing, at which time the student may present the case if desired. The student is advised of the action taken by the administration.

3. Pending action on the charges, the status of a student should not be altered, or the right to be present on the campus and to attend classes, except for reasons relating to his or her physical or emotional safety and well-being, or for reasons relating to the safety and well-being of students, faculty or college property.

4. The student may have, at option, the right to appeal action taken by the administration. A hearing before the Area Board of Vocational, Technical and Adult Education, District No. 4 is held at which time the student is allowed legal counsel if desired. A student who was suspended or dismissed by the administration who desires to appeal the action must do so by petitioning the board in writing within five days of the date of suspension or dismissal. After the hearing has been held by the board, the student is notified of its decision and a copy of the hearing decision shall be placed in the student file. (Suspension or dismissal actions shall be noted on the academic transcript.)

Student due process procedures

Academic appeals

1. When a student sincerely thinks the final grade he or she has received in a course is inaccurate or unjustified, he or she should make an appointment with the instructor who issued the grade and explain the reasons for this belief. This process must be initiated within 15 days of receiving the grade. The instructor and the student should make every effort to resolve the issue, for only the instructor can change the grade by submitting a grade change form to the registrar. It is expected that most, if not all, misunderstandings will be resolved at this level.

2. However, if the student and the instructor are not able to reach an agreement, the student may request, no later than ten days after meeting with the instructor, that the dean/chairperson of the particular division in which the instructor is employed arrange a meeting with the instructor and the dean/chairperson to attempt to resolve the issue. Prior to the meeting, the student shall place in writing a signed statement indicating the reasons for his or her belief and submit copies to the instructor and to the chairperson.

3. Should the issue still be unresolved, or should the decision be adverse to the student, the student may request in writing, no later than five days after the meeting with the instructor and the dean/chairperson, that the Assistant Director/Instructional Services call a meeting of the Academic Appeals Committee. The Assistant Director/Instructional Services shall chair the committee which shall be composed of himself/herself, the Assistant Director/Student Services, the dean/chairperson of the particular division, and four instructors from the same or a similar instructional field. The student will be notified in writing of the time and place of this hearing, at which time the student may present his or her case. At this hearing, the instructor may also present his or her case. After hearing the cases of the student and the instructor, the Academic Appeals Committee shall make a determination in the matter. The student will be informed in writing of the decision.

4. Any party may have, at option, the right of an appeal from the decision of the Academic Appeals Committee. A hearing before the Area Board of Vocational, Technical and Adult Education, District No. 4 shall be held at which time the party will be allowed legal counsel if desired. Any party who desires to appeal the decision of the Academic Appeals Committee must do so by petitioning the board in writing no later than five days after the receipt of the decision of the Academic Appeals Committee. After the hearing has been held by the board, the party shall be notified in writing as to their decision.
STUDENT RIGHTS & RESPONSIBILITIES

Appeal from academic actions and re-admittance

Appeal from academic actions may be made to the Academic Appeals Committee. If a student has been dropped for academic reasons, re-admittance may be sought after a semester has elapsed. This application must be passed on by the Academic Appeals Committee.

Discrimination and harassment

Discrimination

It is the policy of the district not to discriminate on the basis of a person’s age, race, creed, color, handicap, marital status, sex, national origin, ancestry, sexual orientation, or a record of arrest or conviction in its educational programs, admissions, activities or employment policies.

Harassment

Harassment is illegal. It violates the Wisconsin Fair Employment Act, Federal Equal Rights laws, and Title IX of the Education Amendments to the Federal Civil Rights Act.

The District Board, through its commitment to equal rights, will ensure that all employees and students work, learn and study in an environment free of harassment. Harassment infringes upon equal respect in work and academic relationships, causes serious harm to the operation and to the future careers and success of students.

The District Board will take steps necessary to prevent harassment from occurring. Such steps include affirmatively raising the subject, expressing strong disapproval, informing employees and students of their rights to raise and how to raise the issue, and developing methods to sensitize all concerned. District policies and procedures will allow for the resolution or investigation of complaints and will allow for the discipline, discharge or dismissal of students, staff or faculty who have engaged in harassment. Harassment will not be tolerated.

Definition

Harassment is illegal if it is based on the following protected group statuses: Age, Handicap, National Origin, Ancestry, Race, Color, Record of Arrest or Conviction (which does not relate directly to the job, academic program or student status), Religion, Creed, Sex, Sexual Preference, and/or Marital Status. Harassment is also illegal if it is based on or retaliation for having engaged in a prior equal rights complaint process.

Harassment is unwanted, deliberate or repeated unsolicited comments, slurs, demeaning references, gestures, graphic materials, physical contacts, solicitation of favors, advances or other adverse treatment based on a protected group status when:

1. Submission to or rejection of such conduct by an individual is used as the basis for employment or academic decisions affecting an individual.
2. Submission to or rejection of such conduct by an individual is used as the basis for employment or academic decisions affecting an individual.
3. The conduct has the purpose or effect of substantially creating an intimidating, hostile or offensive environment which tangibly affects or interferes with an individual’s job performance or other employment or academic opportunities.

Anti-Harassment Committee

There shall be an Anti-Harassment Committee which shall consist of one counselor appointed by the president of the Teachers’ Union, one teacher appointed by the president of the Teachers’ Union, one student appointed by the Student Senate, three administrators appointed by the District Director, and one support staff member appointed by the president of the Support Staff Union. A chairperson will be selected by the committee. An up-to-date list of committee members may be obtained from the Director’s office, the Student Services office, and the Student Senate office. All members of the committee shall maintain confidentiality.

The committee shall be responsible for the organization’s Anti-Harassment program, including development of Anti-Harassment policy and procedure and Anti-Harassment education efforts. Committee members shall serve as informal contacts for individuals who are concerned about instances or issues of harassment.

Discrimination and harassment complaint procedure

Any person who believes that he or she has been discriminated against or harassed may follow either the informal or formal procedure without fear of recrimination and shall be assured a prompt and confidential investigation. Any person who has a complaint brought against him/her shall have the same assurance of a prompt and confidential investigation before any determination of probable cause is made.

Responsibility of staff and faculty

Under both Wisconsin and Federal laws, MATC has a responsibility to address discrimination/harassment which comes to the attention of its administrative or supervisory personnel, whether or not the affected individual files a formal complaint.

Any supervisor or administrator who becomes aware of the discrimination/harassment of any employee or student and any faculty member who becomes aware of the discrimination or harassment of any student shall promptly convey that information either to his or her own supervisor or department chairperson or to a member of the Anti-Harassment Committee. Any supervisor or department chairperson who receives information from a supervisory employee or faculty member shall promptly convey that information to either the District Director, Affirmative Action Officer or the chairperson of the Anti-Harassment Committee.
If no discrimination/harassment complaint is filed, but discriminating/harassing behavior by staff, faculty or students is discovered or brought to the attention of the MATC administration, it may investigate and act appropriately to see that the discrimination/harassment ceases. If it judges the discrimination/harassment severe enough to warrant disciplinary action against an individual, it may proceed with such an action as long as the individual’s right to due process is protected. Such due process shall conform to applicable provisions of a staff or faculty union contract or the Student Handbook.

Informal procedure
Any person believing he or she has been a victim of discrimination may discuss problems or concerns with the Affirmative Action Officer in an effort to resolve the matter.

Any person believing he or she has been a victim of harassment may consult with a member of the Anti-Harassment Committee. The committee member will provide information about what constitutes harassment and the harassment policy and procedure, will offer consultation, outline options, and may draw upon or refer the person to other support and counseling services for assistance.

The committee member will report information on specific allegations of harassment to the committee chairperson. The chairperson, or a member specifically designated by the chairperson, may make an effort to resolve the issue informally and in the strictest privacy.

A written record of the number and type of informal complaints received by the chairperson of the committee shall be filed with the Affirmative Action Officer and the Women’s Initiative Officer at the end of each academic year. However, the names of the complainants and the names of the accused shall be held in confidence and not revealed unless a formal complaint is later filed, or the matter becomes part of a subsequent formal disciplinary process, or legal proceeding.

Formal procedure
A formal complaint of discrimination/harassment may be filed no later than 300 days following the alleged incident of discrimination/harassment. However, the complainant should be aware that the longer one waits, the more difficult it becomes to gather the facts necessary to document and prove that harassment occurred. Therefore, one is strongly urged to file within 40 days of the incident.

Also, individuals should be aware that filing of a formal complaint at MATC does not protect one’s legal rights to complain to state or federal equal rights agencies or to take other legal action. Anyone who wishes to take those courses of action has the responsibility to find out those time limits and comply with them. Waiting too long may jeopardize one’s rights.

These steps shall be followed in the event of a discrimination/harassment complaint:

Step 1. The complaint must be submitted in writing and signed by the complaining person. The signed complaint shall give in detail the time, place, pertinent facts and circumstances of the alleged discrimination/harassment, and shall be filed with the Affirmative Action office or Women’s Initiative office. Upon request, MATC shall preserve the anonymity of any employee or student who is the aggrieved party and a complainant of discrimination/harassment, until a determination as to probable cause has been made, unless MATC determines that the anonymity will substantially impede the investigation.

For the purpose of mailing written complaints, the college’s mailing address is: Madison Area Technical College, 3550 Anderson St., Madison, WI 53704.

Step 2. A copy of the complaint shall be sent to the person against whom the charge has been brought within ten working days from the date the Affirmative Action/Women’s Initiative office receives the complaint.

Step 3. Within 30 days after the complaint has been filed, the Affirmative Action/Women’s Initiative Officer(s) shall investigate the complaint, attempt to resolve the problem, and prepare a written report of the findings. The time period may be extended for justifiable reasons. The investigator(s) will send a written notice to the parties stating the reason for the extension.

The District Director may assign any other members of the administrative staff to work with the Affirmative Action/Women’s Initiative Officer(s) as co-investigator or conciliator.

In the event that a person files both a discrimination/harassment complaint and some other form of MATC complaint, based upon the same set of circumstances, there shall be a consolidated co-investigation by the discrimination/harassment investigator and the administrator responsible for that other complaint process.

If a person against whom a charge has been brought is covered by a collective bargaining agreement, that person may have union representation when interviewed during the investigation.

Step 4. After attempting to resolve the complaint, the District Director/designee shall make a decision within twenty calendar days of receiving the report from the Affirmative Action/Women’s Initiative Officer(s). The complainant and the person against whom the complaint is made shall receive a copy of the decision. The District Director/designee may order any reasonable and appropriate remedy for the complaining party if there is substantial evidence that the discrimination/harassment did occur.

Substantial evidence of discrimination/harassment may also be grounds for beginning a formal disciplinary process against either students, staff or faculty under any applicable Student Handbook rules, collective bargaining agreement, or other administrative procedure.
STUDENT RIGHTS & RESPONSIBILITIES

An accused party who is not satisfied with the results of the District Director’s decision may pursue the standard grievance process set forth in the Student Handbook, a collective bargaining agreement, other administrative procedures or may defend against any disciplinary proceeding against them as a result of the discrimination/harassment complaint process.

General due process procedures

For complaints other than discrimination, harassment or academic appeals

When a student sincerely believes he or she has a valid complaint against any member of the staff (staff meaning any full- or part-time employee of the board), he or she should comply in sequence with the following procedure:

1. Within 15 days of the date of the alleged incident, the student shall make an appointment with this person and explain the nature of the complaint and the reasons for this belief. The staff member involved and the student should make every effort to resolve the issue. It is expected that most, if not all, misunderstandings will be resolved at this level. Students who feel intimidated by the staff member involved may proceed to Step 2. Complaints involving the District Director which are not resolved at the meeting level should be addressed to the Area Board of Vocational, Technical and Adult Education, District No. 4.

2. If the student and the staff person are not able to reach a satisfactory agreement, the student may, no later than ten days after meeting with the staff person, request that the supervisor of the staff person arrange a meeting with the student, the staff person and the supervisor to attempt to resolve the issue. The student shall place in writing the nature of the complaint and submit copies to the supervisor and the staff person prior to the meeting.

3. Should the issue be unresolved at Step 2, or should the decision be adverse to the student, the student may appeal in writing, no later than five days after the meeting with the supervisor and the staff person, to one of the following administrators.

Complaints concerning instruction should be addressed to the Assistant Director/Instructional Services. Complaints concerning student services should be addressed to the Assistant Director–Student Services. Complaints concerning support staff should be addressed to the Personnel Officer. Complaints concerning administrators or chairpersons should be addressed to the District Director. The particular administrator will call a meeting of the student and the persons involved to attempt to resolve the problem. The resolution and/or decision shall be conveyed in writing to the student.

4. Should the issue still be unresolved after Step 3, or should the decision be adverse to the student, the student may request in writing, no later than five days after receipt of the letter from the particular administrator, that the particular administrator call a meeting of the Appeals Committee. The particular administrator will chair the committee which will consist of a total of seven people: the administrator, three staff persons from the particular area involved chosen either by the president of the Teacher’s Union, if it relates to instruction, the president of the Support Staff Union, if it relates to support staff, or by the District Director, if it relates to student services, administrators or deans/chairpersons, the president of the Student Senate and two other senators chosen by the president. The student will be notified in writing of the time and place of this hearing at which time the student may present his or her case. At this hearing, the staff person against whom the complaint is being issued may also present his or her case. Both have the right to be represented by legal counsel at their own expense unless otherwise provided for by the Area Board of Vocational, Technical and Adult Education, District No. 4.

After hearing the student and the staff person, the Appeals Committee shall make a determination in the matter. The student and the staff person will be informed in writing of the Appeals Committee decision within ten days. A copy of the decision shall be sent to the District Director.

5. Should the decision of the Appeals Committee be unsatisfactory to the student, the District Director has the option of either attempting to mediate the complaint or of accepting the decision of the Appeals Committee. In either case, the District Director shall so notify the student of his/her decision in writing within five days of receiving the decision of the Appeals Committee.

6. The student has the right to appeal the decision of the Appeals Committee and/or the District Director to the Area Board of Vocational, Technical and Adult Education, District No. 4. A student who desires to appeal the decision must do so by petitioning the board in writing no later than five days after receipt of the decision. A hearing before the board shall be held at such time as the board designates. The student shall be notified accordingly. After the hearing has been held by the board, the student shall be notified in writing, within 30 days, as to their decision.

Note: In this procedure, all staff members involved shall keep a record of the times, dates and other pertinent facts relating to the nature of the conferences in which they were involved.
General policies of the college

Student Handbook

Current and complete academic and general policies of Madison Area Technical College are published each year in the Student Handbook. Listed below is selected information of the greatest significance to incoming students.

Student Bulletin

The all-college Student Bulletin is published each Monday during the academic year. Meeting notices, important communications to students and new policies are among the items included in the Bulletin. Students who wish to submit items for the Bulletin should bring them in typed form to room 007 by noon on the Wednesday preceding publication.

Class size

The college reserves the right to discontinue any class which has an attendance of less than ten.

Classroom attendance and visits

In accordance with the provisions of Wisconsin Statutes 38.22 and 118.15, persons shall be sixteen years of age or older in order to enroll in or attend any classes offered by the Area Board of Vocational, Technical and Adult Education, District No. 4.

Non-students, regardless of age, shall be permitted to visit classes offered by the District 4 Board with the consent of the instructor teaching the class to be visited or by obtaining a visitor's permit from the appropriate administrator. Consent and permission will be granted only for the purpose of becoming knowledgeable about a course or oriented to the educational mission of the district.

This policy shall not inhibit persons of any age from receiving services in the dental laboratories, the barbershop, or elsewhere if personal services are being provided. In these instances, the person shall follow the established appointment practice or procedure.

Further, students or non-students are prohibited from leaving a child under the age of sixteen years in District 4 facilities unattended. This policy does not preclude allowing a child in class where the child contributes to the instructional process.

Dress Code

Most students at MATC are preparing to seek employment in one or two years. Others will ask for recommendations relative to transferring to other institutions of higher learning. It is the policy of this school that students shall dress in a manner that would be appropriate to the vocation for which they are preparing, and in any case, be neat in appearance. Both appearance and maturity of behavior are important factors which will influence the faculty members who are called upon to recommend a student for employment or for transfer.

Lockers

The locker rental period begins the first day of registration in July and extends through the last day of final exams in May. The summer school rental period is for the summer school term. Individuals must have a current MATC identification card or registration receipt in order to rent a locker. Individual responsibility includes the following:

1. The individual is responsible for the security of the contents of his/her assigned locker and shall supply an adequate lock.
2. Damaging, defacing or altering an assigned locker will result in fines and/or forfeiture of deposit. The district board or designee also has the right to assess any costs to the individual for damages and defacing of locker to include, but not limited to, any marks made by tape, glue, markers, pens, etc.
3. Individuals shall not use the assigned locker to contain narcotic or illegal drugs, firearms, explosives, dangerous or flammable chemicals, etc.
4. Sharing an assigned locker is the sole responsibility of the individual to whom the locker is rented.

All lockers must be cleaned and all items, including locks, must be removed by the last day of final exams in May or day of withdrawal. Any uncleaned lockers after these times will prompt a deposit forfeiture and items will be removed and discarded.

Locker fees are for the academic year which includes the fall and spring semesters. Second semester locker fees are one-half of the below listed fees. Locker fees will not be pro-rated for less than a semester. Current fees may be obtained from the Student Life office.

A deposit of $10.00 is required per locker rental. This deposit shall be refunded upon withdrawal or at the end of the semester or school year if the locker is not defaced or damaged, and if it is cleaned. Individuals must apply for refunds at the Student Life office, room 140, by bringing in their locker receipt on or before the last day of final exams in May. Refunds will not be made for less than a semester. Current fees may be obtained from the Student Life office.

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Refunds and deposits will be mailed if a self-addressed, stamped envelope is provided, or they may be picked up. Allow at least four weeks to receive any payment due.

If an individual requests a different locker after assignment has been made and confirmed, there will be a $2.00 processing fee. Any other adjustments or charges will be determined by the Student Life staff. It is understood that a locker is being issued with the agreement that the locker is district property. The district board or designee reserves the right to inspect it at any time for any reason.

Please refer any questions or concerns about lockers to the Student Life office or call 246-6228.

Parking

On-campus parking is available at all campus sites, except the Downtown Education Center at 211 North Carroll St., Madison.

The cost for parking is established by the district board. All vehicles parked at the Truax and Commercial Avenue campuses in designated areas shall display a parking sticker or else be subjected to ticketing and removal.

The cost of a student parking permit is $3.00 per semester and $1.50 per summer session per vehicle. All students who apply for a parking permit shall be charged an additional fee of $1.00 per credit. Fractions of credits shall be charged as whole credits. Fees are payable at time of registration. Carpools with four or more individuals do not pay the additional parking fee. Mopeds and bicycles will be provided free parking. Visitors' vehicles shall display a visitor parking permit. Handicapped parking spaces and drop-off/loading areas are provided free of charge. For parking concerns or questions, please call 246-6031.

Smoking

As of September 1, 1990, all MATC education and administrative buildings are maintained as tobacco-free environments. Smoking or the use of tobacco products is not allowed within any District 4 facility.

Temporarily disabled or pregnant students, policy for work study or clinical affiliation experiences

A student enrolled in program of the district which requires a clinical affiliation or work experience and who becomes temporarily disabled or pregnant or who otherwise incurs a temporary physical condition may continue to participate in such program until such time that a physician or certified nurse-midwife upon review of the program, determines that the student cannot any longer participate safely.

The student may return to the program upon the approval of a medical professional, and as the schedule for clinical experiences permits. The college may require the student to obtain the certification of a physician or certified nurse-midwife that the student is physically and emotionally able to continue or resume participation in the program.

Visitors

The board and the staff welcome visitors to the college. If a visitor to the college conducts him/herself in such a way that would endanger the safety or welfare of students, staff or other visitors, or that would interfere with the educational process, the Area Board of Vocational, Technical and Adult Education, District No. 4 authorizes the District Director and administrative personnel or appropriate designees to:
1. Give warning to persons who shall enter the building for the purposes of soliciting, peddling or loitering by posting signs at all entrances which shall state: "No person may enter these facilities for the purposes of soliciting, peddling, loitering or for illegal purposes."
2. Notify the police whenever they deem it necessary to safeguard the well-being of students, staff, other visitors and property of the district.
3. File a formal complaint and bring charges against such individuals.

Weather

In case of bad weather, students are requested not to call the college to inquire if classes will meet. In cases of severe weather, MATC students should monitor local radio and television stations. MATC seldom closes because of bad weather. Students are urged to use their own judgment as it would relate to their situations considering distance, road conditions, safety and other factors, and determine individually if they should report as usual. Students will not be penalized if they cannot report to work or meet classes as scheduled. They will be given an opportunity to take scheduled examinations at another time. Provisions shall be made by teachers for completing any classroom work on a formal or informal basis.

During class time, emergency weather announcements will direct everyone to shelter areas, which are identified in most facilities. Individuals will be instructed as to the location of these shelters and how to proceed if there is a severe weather emergency.
Counseling

Students and prospective students are welcome to consult with counselors in the student services offices about any academic, career or personal problems. Since many students face difficult and often perplexing decisions in their college years, they should feel free to make use of counseling services. Counselors are available to help with financial problems, housing, adult high school, student activities, testing, career counseling and employment.

Counseling services include vocational guidance, career information, assistance with academic and study problems, specialized testing and personal counseling. Students who desire it are given the opportunity to work with a counselor in a confidential relationship in which they can explore their aspirations, abilities, interests or any special problems they may have. The special needs of all students are taken into account by each counselor.

Students who are having academic difficulties, and who need to discuss the effects of such difficulties on their future financial aid, may also make counseling appointments. Counselors are available to assist students who may be withdrawing so they may make plans for their future education.

The professional counseling staff is located in room 159 at Truax and room D105 in the Downtown Education Center. Part-time counselors are available at the satellite campuses.

Career planning resources

Career planning is an important step toward academic success and career satisfaction. The career planning resources of Student Services at MATC are designed to help match students’ skills, interests and values with appropriate careers. Counselors can provide up-to-date career information and decision-making strategies.

Resources available are the Career Planning Program (a group assessment and career orientation program available to inquiring adult students, high schools and community groups), individual counseling, career planning groups, additional assessment instruments, computerized career guidance programs, and a career resource library.

The use of the computer-based guidance system offers a systematic career development program designed to enhance normal career development for students and other adults. Among the components are values clarification, work skills, matching values and occupations, interests and strengths, occupational information and exploring specific career plans.

Evaluation and assessment

Many kinds of instruments are available to assess student interests, abilities, aptitudes, personality traits and values. The counselor and the student decide which evaluation instruments are beneficial. Afterward, the counselor explains the significance of results of the evaluation to the student. This information is kept confidential.

Services for special needs students

Counseling assistance is available to students who have academic, social, economic, cultural or other handicaps that might prevent them from succeeding in educational programs. The college also has special programs aimed at providing opportunities for enrollment to women and minorities who are re-entering school after an interruption in their education, those who are seeking career change, and displaced homemakers.

Special needs services for physically and mentally disabled students attending MATC are also provided and coordinated by a special needs counselor.

MATC now has a telecommunications device for the hearing impaired. The phone number, for use by hearing-impaired students and those wishing to communicate with them, is 246-6663 at Truax, and 258-2454 at the Downtown Education Center.

Any entering student who has a diagnosed learning disability is encouraged to submit appropriate test scores and evaluation measures to the special needs counselor. This information will help instructors and counselors meet student needs.

Supportive services are provided to assist handicapped students to overcome specific barriers and face the different challenges encountered during their attendance at MATC. Such services may include counseling, career exploration, note taking, academic coaching and loaning of cassette recorders and calculators. Instructors should be contacted regarding special provisions that may be necessary for taking tests.

Accessibility to physical facilities and academic programs is stressed as part of the commitment to meet special needs requirements. Every effort is made to integrate handicapped students into the mainstream of the college’s vocational education programs.
MATC is committed to the belief that it is the right of all students to have an equal opportunity to acquire knowledge, gain social skills and develop personally. An Information Handbook for Students with Special Needs has been prepared to acquaint people with general information about educational opportunities for MATC students with handicaps. Copies are available upon request in the office of the special needs counselor, and students should be familiar with its contents. The book provides a guide for handicapped students, including the availability of helpful services, the accessibility of campus area, parking guides and several floor plans for campus buildings.

Tutorial assistance, basic skills assessment and test monitoring for special needs students is available through the Alternative Learning Division/Adult Basic Education Department. In addition, students may wish to contact the special needs assistant, the special needs instructor and/or the special needs paraprofessional coach in the Learning Center for additional information or service.

Women's services

A professional counselor provides assistance and support services to meet the needs of women.

The support services emphasize career exploration and development, economic parity, training and general information necessary to enter or re-enter the workforce. Support groups, study skills workshops and stress management seminars are also available.

Health Services

Health services are provided to students to aid them in maintaining physical and emotional health. These services are staffed by a registered nurse at Truax and at the Downtown Education Center, and by a consulting physician who serves in an advisory capacity. A part-time nurse is also available at the Downtown Education Center.

The primary function of Health Services is health education and counseling. Temporary treatment of minor illnesses may be administered under the medical directives of the consulting physician. First aid for injuries is provided during the hours the Health Service is staffed at each campus. The health services operation is designed to supplement the basic care the student receives from physicians and dentists in their own community.

Student health insurance plan

A student health insurance plan covering accident and illness is available at nominal cost to students in full-time programs. Information and enrollment forms are available during registration and in the Student Services office.

Housing

Madison Area Technical College is primarily a commuter college. The Truax campus is located near major highways and is easily reached from most parts of the district. Parking costs are modest. Buses from all parts of Madison connect at the Capitol Square—one block from the Downtown Education Center at 211 N. Carroll Street—and provide direct service from there to the Truax campus.

For students who move to Madison, the college provides a housing information service.

Housing lists prepared each June and updated twice during the summer are mailed on request between June 1 and August 15. These lists are available in Student Services, room 159, along with area maps, consumer information and housing consultation. A housing bulletin board is maintained throughout the school year.

Madison Area Technical College assumes no responsibility for inspection or condition of the premises or the terms of the leases offered. The City of Madison enforces a minimum housing code, a fire safety code and an equal opportunities ordinance.

Information Resource Centers

The six information resource centers are located at the Truax campus, the Downtown Education Center, MATC-Fort Atkinson, MATC-Portage, MATC-Reedsburg, and MATC-Watertown.

The largest information resource center, located at the Truax campus, seats 525 people and has 1.25 miles of shelving with a capacity for 100,000 volumes. Online computer catalogs in all information resource facilities provide students with access to titles in all collections.

Representative services and collections offered at one or more information resource centers include:

- Print and media collections
- Periodicals to support all programs
- Reserve collection
- Reference collection
- Circulating materials collection
- Microformat collection
- Computer catalog access to MATC and Wisconsin libraries
- Class and individual orientations to collections, services, databases, facilities
- Interlibrary loan
- Intercampus loan
- Microcomputer laboratory
- Scheduling and reserve of software and print materials
Instructional Learning Centers

Instructional Learning Centers are located at the Downtown Education Center, Truax campus, Commercial Avenue site, the satellite campuses at Portage, Reedsburg, Fort Atkinson, Watertown, and at various outreach sites throughout the district. Classes and individual help are provided in basic skills (reading, writing, math, social studies and science), GED exam preparation, English as a Second Language, citizenship and pre-employment skills.

Support instruction and peer tutoring is provided to students enrolled in vocational-technical programs. Academic testing is available in the area of math, reading and English on an individual or group basis. A variety of other academic supportive services are provided to include: Job Training Partnership Act programs (JTPA), minority recruitment-retention and single parent, displaced homemaker programs.

Placement

The Placement office provides assistance in securing part-time and full-time employment. Many students attending college need part-time work in order to earn money to defray expenses. Assistance is offered to help students identify job opportunities and develop appropriate job application skills so they may be successful in finding a job.

Employers contact the college in their effort to obtain qualified employees. The Placement office works with faculty members to facilitate communication between employers and students. Notices of job opportunities received from employers are kept on file in Placement, posted on bulletin boards, distributed to appropriate program areas, and mailed to graduates and alumni registered for placement assistance. Graduates are encouraged to register with the Placement office so they will be notified of job openings relating to their chosen fields. Placement reports, which include salary ranges for graduates, are available in the Placement office.
As students become oriented in their scholastic work, they will make their college experiences more meaningful and valuable by actively participating in the social or co-curricular aspects of college life.

The college seeks to provide the opportunity for each student to participate in activities which relate to vocational objectives, enhance academic studies, satisfy social needs, provide recreational opportunities, and encourage cultural enrichment.

The entire philosophy of the activities program can best be summed up in one word—volvement. Students should be able to find an area which appeals to them whether it be music, athletics, drama, student government, clubs, newspaper or programming.

Student activities are funded through the Student Activities Board which is composed of staff, administration, and students. Further information on these activities is presented on the following pages.

The Student Life office houses the Student Life staff in room 140. The Television Lounge, Recreation Center, multi-purpose room, meeting rooms, student lounge, Student Senate office, PAC office, and student clubs and organizations office are all a part of Student Life. The staff plans the leadership conferences, issues series and cultural diversity programs, as well as community service projects and other specialized programs. For more information, call 246-6228.

The Student Activities Board, established by the Area Board of Vocational, Technical and Adult Education, District No. 4, is comprised of four faculty members or administrators and five students. Its objectives are:

1. To establish criteria for the formal recognition of student groups and/or clubs as official college organizations which share in segregated funds.
2. To formulate guidelines for administering funds.
3. To examine annual applications and review, approve or deny, in whole or in part, the budgets of activities groups judged to be eligible to share funds.
4. To make judgments on the allocation of funds from segregated funds to those activities which qualify according to established guidelines.
5. To report recommendations to the Area Board of Vocational, Technical and Adult Education District No. 4 through the District Director.
6. To administer all segregated funds responsibly.
7. To recommend other areas to be covered by the segregated funds to the Area Board of Vocational, Technical and Adult Education District No. 4.

For further information about the Student Activities Board, contact the Assistant Director—Student Services.

Programs and Activities Council (PAC)

The Program and Activities Council (PAC) is a group of volunteer students who coordinate a variety of student activities and programs for the MATC student body. With the help of staff members from the Student Life office, PAC’s mission is to offer co-curricular and extra-curricular programs at MATC to enhance a student’s recreational, cultural, educational and social experiences.

PAC members get the opportunity to develop communication, social, time management, and leadership skills, as well as gaining self-confidence and enhancing other areas of personal growth. Members can also strengthen their classroom learning in marketing, publicity, accounting, public relations, writing, and other areas of study. Any MATC student who is registered and in attendance for at least one credit in an MATC post-high school program may join the PAC.

A member may choose to participate in any of the following PAC committees:

- **Film Series**—features classic movies, recent releases, educational short films, Sandwich Cinema, and “free flicks.”
- **In Concert Committee**—selects and schedules live bands and special concerts in such musical styles as reggae, rock, funk, country rock, swing, R&B, new wave, etc.
- **Lecture Series**—plans educational speakers, workshops and seminars on a variety of topics such as careers, stress management, politics, finance and other interests.
- **Special Events Committee**—coordinates PAC recruitment and orientation weeks, the annual Fall Carnival and Spring Picnic, and other special interest programs.
- **Variety Unlimited Committee**—plans performances featuring a variety of novelty artists such as magicians, comedians, jugglers, caricaturists, impressionists, etc.
- **Children’s Series**—plans the Kids’ Days and other family-oriented programs for MATC students and their children, such as puppet shows, movies, storytellers, and an Easter egg hunt.
Soundstage Committee—presents musical artists in a listening atmosphere, highlighting such styles as folk, jazz, blues, bluegrass, contemporary, and a cappella, etc.

Publicity Committee—coordinates marketing campaigns for PAC events, develops ideas and designs for innovative publicity for committee functions, assists the committees with creative promotional techniques.

Most of these committees have the opportunity to review tapes, albums, videos, and promotional information on a multitude of artists and speakers. Members get the chance to talk to agents and performers, schedule programs strategically throughout the school year, arrange for the programs (reserve facilities, order refreshments, etc.), publicize events, help set-up and tear down before and after events.

The MATC Programs and Activities Council welcomes students of all ages, interests and backgrounds as members. Being a member takes as much time as one wishes to put into it. If joining PAC won’t work for you, make sure to check out the many programs that PAC has to offer for the school year. To find out more about PAC and its schedule of activities, stop by the PAC office, room 131 (246-6PAC) or the Student Life office.

Student Senate

The Student Senate includes elected representatives from all full-time programs. Members of the senate represent approximately 125 students from their individual programs. The senate meets twice monthly to make decisions or recommendations on college policy, school activities, educational advancement, improvements to the college, and lobbying for student rights and needs. The Student Senate office is located in room 130, Truax campus, 246-6107.

The Senate is a member of and attends conferences of the Wisconsin Student Government of VTAE Colleges and the Wisconsin Student Caucus.

General elections to the Senate are held during the fourth week of the new school year. However, members may be added as vacancies occur throughout the year. Senate officers may be elected during May of each year to serve a one-year term. Some officers are elected in the fall.
Established Student Senate Committees

- Legislative Committee
- Student Grievance Committee
- Communications Committee
- Publicity and Public Affairs Committee

Elected members of the Senate are appointed members of the following joint boards or committees:

- Student Activities Board
- Publications Board (SLANT)
- Student Health Advisory Committee
- Facilities Committee
- Safety Committee
- Legislative Committee
- Student Appeals Committee
- All-School Graduation Committee

Clubs and student organizations

Architectural Technology Association

This organization consists of members of the Architectural Design-Building Technology program. Its purposes are to promote and practice leadership and citizenship, to promote public relations in the building design and drafting fields, to keep abreast of current trends, to gain an understanding of related fields, to promote educational advancement, and to promote fellowship and understanding among building designers.

Association of Civil Technicians

Civil technology graduates or students in good standing may belong to this club, which seeks to unite civil technicians, promote interest, provide education in this field, and to encourage citizenship and leadership.

Association of Electronic Technicians

Active members of this organization include first- and second-year students enrolled in the Electronic Technology program. The purpose of the club is to promote the interests of members in a professional manner through field trips, recreational activities, speakers and job interviews. Up-to-date files are kept on prospective employers. Class reunions are also arranged through help of the club.

B.I.K.

This club derives its name from "Believing in Kids." It is made up of students in the Child Care and Development program. The purposes of the organization include promoting and practicing leadership in the field and promoting the professional status of child care workers. Activities include social events, field trips and community service functions.

Business Professionals of America

Business Professionals of America is a voluntary student organization supporting office education occupations. The organization is designed to develop leadership abilities and interests in the American business system and competency in office occupations. It is open to all MATC students, full- and part-time. Students who join become members of the Business Professionals of America on a national level as well as on state and local levels. As part of state and national conferences, students are given the opportunity to compete in events related to their future chosen professions.

The Torch Awards program offers recognition for service at the local, regional, state and national levels. The MATC Chapter of Business Professionals of America is involved in community service, service to the school, fund raising, and social and professional activities.

Connoisseurs Club

This organization is open to any student in a Culinary Trades program. Activities of the club include special catering functions, which give members the opportunity to practice their skills outside the classroom, as well as state and national restaurant conventions. Members may also participate in the annual state-wide student organization competitive events.

Data Processing Management Association

The MATC Chapter of DPMA exists for the purpose of developing better understanding of the nature and functions of data processing by promoting sound, general principles, improving technical methods, studying equipment and assisting members in solving their individual problems. Members also hope to foster among students a better understanding of the vital business role of data processing, the proper relationship of it to management, and the necessity for a professional attitude and approach to understanding and applying these principles. The organization is sponsored by the International Data Processing Management Association.

Dietetic Technician Club

MATC's Dietetic Technician Club may be joined by any full-time or part-time student associated with the Dietetic Technician program. The club strives to promote career and professional development in the field of dietetics and human nutrition. Additional activities include related field trips and conferences, participation in community nutrition projects and the promotion of nutrition awareness among its members in the school and in the community. Members are strongly encouraged to join and follow their parent organization, the American Dietetic Association.

Drama Club

The Drama Club is open to all students at MATC. Its purpose is to encourage self-development techniques in acting and to participate in theatrical endeavors at MATC. Field trips to the Guthrie Theater in Minneapolis and a spring New York City theatre trip are planned annually.
Electronics Servicing Club
Active members of this organization include students enrolled in the Electronics Servicing program. The purpose of the club is to promote the interests of members in a professional manner through field trips, recreational activities and guest speakers.

Health Occupations Students of America
Health Occupations Students of America is a state-wide organization with a local chapter at MATC. It is dedicated to refining student skills and to community service. It is open to all students within the Health Occupations Division. Students conduct the biannual Red Cross Bloodmobile Drive at MATC. In the spring, competitive health-related events are held state-wide in the areas of medical terminology, medical spelling, extemporaneous speaking, job applications, CPR, first aid, medical assisting, operating room technology, dental assisting and nursing. National competitions are held in the summer.

Human Service Club
MATC's Human Service Club is an organization of students enrolled in the Human Service Associate program. Weekly meetings are open to all MATC students and faculty. Activities of the club include fund raising, food drives and preparation for the Annual Spring Conference of Human Service Educators. Club goals include increasing awareness of community needs and addressing some of those needs.

Interior Design
This club is an organization consisting of student members, both part-time and full-time, who are enrolled in the Interior Design program. Their activities include providing enrichment through guest speakers and field trips. Social functions and community services are also included.

International Students
The International Students Club, open to all students, meets to celebrate the global diversity of its members. The International Students Club assists the Student Life staff in their cultural diversity displays and celebrations throughout the year.

Marketing Club
This club is open to all MATC students, especially to those in marketing and business programs. The organization's purpose is to enable student members to develop professional skills and leadership abilities.

The Marketing Club participates in several conferences during the year including two state conferences and a national conference. The chapter allows members the opportunity to meet district business people, including attending meetings of organizations such as the Sales and Marketing Executives of Madison. The Marketing Club is affiliated with the Wisconsin Marketing and Management State Association of the Delta Epsilon Chi Division of DECA.

M.L.T. Electrolytes
Membership in this club includes medical lab technician students. Its prime objective is to help raise funds for student activities. The club brings medical lab technician students together and informs them of happenings in course programming that may be of interest.

Multi-Ethnic Student Organization (MESO)
MESO membership is open to any student or participant in MATC programs who is interested in minority student issues (minority is defined as Hispanic, Black, Native American or Asian American). Organizational objectives are to: 1) develop a vehicle for cultural exchange that will be beneficial for retention and recruitment of minority students; 2) eliminate generalizations based on stereotypical attitudes by creating a better atmosphere within the college; 3) promote and encourage minority student participation in MATC's Student Senate; 4) promote and cultivate unity among minority students; and 5) develop and support cultural activities by presenting different activities.

Native American Student Association
The Native American Student Association is a group of students that meet to share their ethnic customs. The students provide information and materials about their Native American traditions for the Celebrate Diversity focus each spring.

Optometric Technician Club
This club consists of full- and part-time Optometric Technician students. The purposes are to promote interest and knowledge of optometry on campus and in the community, to improve and advance education and qualifications in optometry, and to engage in activities to further the dissemination of knowledge regarding the practice of optometry.

Outdoor Recreation Club
This club organizes weekend and week-long trips for its student members and local ski activities for all students, including ski films, ski nights and social events. It also sponsors a ski team through Midwest Collegiate Ski Association. Major trips to Jackson Hole, Winter Park, Steamboat Springs, Big Sky and Indianhead have been organized by the club.

Post-Secondary Agricultural Students Organization (PAS)
This club develops and encourages student interest in agriculture/agribusiness and promotes involvement in club activities, including the Agricultural Machinery Service Technician competition and other PAS events at state and national conventions. The club also sponsors field trips to farm equipment manufacturing plants and national machinery shows. The club maintains contacts with ag-mechanics graduates by encouraging attendance at the annual alumni meeting. Other purposes of the club are to help students make occupational choices, to develop character and leadership abilities, and to encourage cooperation with students in other areas.
Radiography Club
Active members of this organization include students enrolled in the Radiography program. The club's purpose is to unite members and to promote their interest in a professional manner through field trips, recreational activities, and educational programs.

Recreation Association
This association was organized by both Recreation Resource Operation and Tourist Recreation students, and is open to any student at MATC. The "Rec" Club plans, implements and evaluates special events such as the annual Fall Picnic, the Billiards Tournament, and a field trip to Mexico City. Funds raised by the Rec Club are used by students to attend professional workshops and conferences held by such agencies as the Wisconsin Parks and Recreation Association, Wisconsin Federation of Tourism, and Wisconsin Recreation Industries.

Spanish Club
This club is for students studying Spanish and those interested in learning about the Hispanic culture. The purpose is to encourage an awareness and understanding of the diverse cultural, social and political aspects of the Spanish-speaking world. Activities include involvement with the Hispanic community, Spanish feature films, weekly luncheon discussion groups, tutoring at the Hispanic Center, trips to Mexico, and Hispanic cooking demonstrations.

Special Needs Organization (SNO)
The Special Needs Organization addresses the needs of students with disabilities. Membership is open to all students and staff interested in advocating for the rights of citizens with disabilities. The SNO is primarily concerned with accomplishing the following purposes: 1) facilitating the provision of services which meet the needs and interests of students with disabilities; 2) providing an opportunity for the fostering of social relationships among people with and without disabilities; 3) alleviating the societal myths associated with disabilities; 4) providing information and assistance during registration periods; 5) printing informational brochures regarding appropriate topics; and 6) making available information regarding state and federal legislation which speaks to the civil rights of people with disabilities.

Student Dental Hygienists Association
This organization is the student component of the National American Dental Hygienists Association. The activities are primarily professional in nature. As members, students are eligible to participate in any of the local, state or national meetings of the ADHA, and students receive the ADHA's publication.

Student Nurse Club-Reedsburg
The Student Nurse Club is a local chapter of the state and national Student Nurse Association. Members participate in conferences and conventions, hold state offices, and participate in decisions made on state and national levels.

Student Nurse Club
The purpose of the Student Nurse Club is to promote an awareness of nursing in the community, to promote health education, to become actively involved in the legislative process regarding nursing issues, and to recruit and retain nursing students. Locally, students have formed a "Little Sister" program to help incoming nursing students. They have demonstrated skills, screened for health problems, and taught good health practices at MATC and other open houses or health days. They discussed nursing with congressmen at Legislative Day at the Capitol. They also help at the blood banks and other community-related health events.

Student Occupational Therapy Association
This organization consists of students in any semester of the Occupational Therapy Assistant program at MATC. The main purposes of the organization are: 1) to promote leadership and citizenship among students; 2) to promote interest in and knowledge of occupational therapy on campus and in the community; 3) to improve and advance the education and qualifications of occupational therapists; 4) to maintain communication with other OT students in the state and nation; 5) to enhance understanding between technical and baccalaureate occupational therapy students through communication with students at the University of Wisconsin; 6) to provide a forum for discussion among students and staff members concerning educational goals, practices and problems within the program; 7) to engage in activities to further the dissemination of knowledge regarding the practice of occupational therapy; and 8) to encourage improvement of the MATC Occupational Therapy Department.

Textiles and Clothing Services Club
This club consists of full- and part-time students in the Clothing and Textiles program. The purpose of the organization is to develop an interest in and respect for education in clothing and textile occupations. Members promote and interpret the program within and outside the college. It is their desire to provide educational programs to alumni as well as to employees involved in clothing and textile services in the community. Social functions and field trips are other activities planned by the group.

The Ventilators
The members of this club include all respiratory therapy students. The club's purposes include fund raising activities so that club members may attend educational conventions and other activities, informing the public of the value of respiratory therapy, providing communication between first- and second-year students, and helping to make learning fun.

Welding Specialists Association
The purpose of this organization is to unite welding specialists, promote interest and recognition, provide education in the field, and encourage citizenship and leadership.
Wisconsin Industrial Machinist Club
WIMC is composed of both first- and second-year students. The club's purposes are to: 1) promote citizenship, leadership and responsibility; 2) to recognize and strive to fulfill all college policies; 3) to promote better relations between first- and second-year students; 4) to promote group interest, recognition, and employment of graduates within the machinist trade; 5) to keep in contact with alumni; and 6) to keep aware of changes in industry.

Wisconsin Society of Architects–MATC Chapter
This organization is open to any student in the Architectural Technician program or the Architectural Drafting program. The purposes of the club are to increase knowledge in the field of architectural design and assist in job placement for the students.

Wisconsin Student Association of Animal Technicians
This organization has been established for students in the Animal Technician program. Association purposes include increasing member knowledge of animal technology and veterinary medicine; encouraging responsible citizens to engage in the humane care of animals; maintaining effective communication between the Veterinary Advisory Council, college administration, faculty, veterinarians and future technicians; and protecting the status of future technicians from those who have not attained a degree of proficiency in the area necessary for this specialized field of study.

Athletics

MATC athletic programs are designed so that all interested men and women have the opportunity to participate in some athletic activity.

Intercollegiate athletics
MATC is a member of the Wisconsin Technical College Conference (WTCC), the Wisconsin Junior College Athletic Association (WJCAA), and the National Junior College Athletic Association (NJCAA). These groups are the governing bodies which determine rules, regulations and eligibility standards for student athletes. You must be a full-time student during your season of participation. Other rules do apply. The following sports are offered:

<table>
<thead>
<tr>
<th>Men</th>
<th>Women</th>
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</thead>
<tbody>
<tr>
<td>Baseball</td>
<td>Basketball</td>
</tr>
<tr>
<td>Basketball</td>
<td>Bowling</td>
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<tr>
<td>Bowling</td>
<td>Cheerleading (men eligible)</td>
</tr>
<tr>
<td>Cross Country</td>
<td>Cross Country</td>
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<tr>
<td>Golf (fall &amp; spring)</td>
<td>Softball</td>
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<tr>
<td>Tennis</td>
<td>Tennis</td>
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<tr>
<td>Track &amp; Field</td>
<td>Track &amp; Field</td>
</tr>
<tr>
<td>Wrestling</td>
<td>Volleyball</td>
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</tbody>
</table>

For further information, stop in the Athletic Director's office, room 200, or call 246-6099.

Intramural sports
Intramural programs are open to all MATC students enrolled in degree programs. Information on sports and weekly events is found in the Student Bulletin.

| Basketball | Softball (co-ed) |
| Bowling    | Sportsdays       |
| Soccer     | Volleyball       |

Club sports include co-ed soccer and volleyball. For further information, stop in the Intramural office, room 112A, or call 246-6093.

Cheerleading
Cheerleaders also support the athletic program. Tryouts are held in late October. Two squads are selected—one for basketball and one for wrestling.
MATC Wellness Club

The Wellness Club provides students with recreational opportunities as well as promoting fitness. Any student enrolled for degree credit is eligible to join.

Indoor facilities at Truax include a gymnasium with basketball courts, volleyball and badminton courts; a running track; a six-lane swimming pool; three racquetball courts; a weight training room and a sauna. Outdoor facilities include basketball and volleyball courts, softball and baseball diamonds, tennis courts and soccer fields.

Downtown Education Center facilities include a gymnasium with a weight-training room. Lockers and showers are available.

Services include tournaments, aerobic classes, aquatic programs, the use of lockers and showers, as well as individualized fitness programming.

Fees are $35.00 for a semester membership or a daily fee of $1.00. The Wellness Club is self-supporting with fees going directly to pay the staff. For more information, stop by the Wellness office, room 112A, or call 246-6093.

SLANT—official college newsmagazine

SLANT (Student Life and News Today) is the official newsmagazine of the college. This national prizewinning publication is created and produced for and by MATC students. Its editors, artists, reporters, photographers and salespeople are either taking courses related to publishing or they are volunteers who want experience and the distinction of working with SLANT to appear on their resumes at graduation time. SLANT publishes a 16-20 page issue each month during the school year and circulates 5,000 copies of each issue.

Editors and publications board members encourage photographers, writers and artists to volunteer their time and talents to join what one scholastic journalism critic called "a truly superior college newsmagazine."
Alumni Association

The MATC Alumni Association promotes activities for the more than 35,000 graduates of the college. Alumni provide an excellent resource for students seeking jobs. Their financial contributions to the MATC Foundation have assisted many individuals in completing their educations. Alumni receive regular communications from MATC, and their feedback is solicited to ensure that curriculums are current and appropriate for today’s jobs and for the jobs of tomorrow. The Association also works cooperatively with the college staff to coordinate the Alumni Ambassadors Program. Ambassadors volunteer to answer questions from prospective students, speak at career days and job fairs, and represent their program areas when asked by the institution for assistance.

Music

The Music department offers a variety of activities and courses for students. Experienced performers may audition for the Madison Symphony Orchestra, the Madison Symphony Chorus, the Madison Opera or the Madison Municipal Band.

New College Singers

MATC’s New College Singers have appeared throughout the United States. The Singers’ performing ensemble has been critically acclaimed as “emphatically contemporary” and “the most dramatic and sensational stage action to be seen by any choir of its kind.” The group forms an integral part of the growing music program at MATC for it: 1) exposes students to the increasingly popular and significant means of musical expression in the pop-rock-show medium; 2) serves as goodwill ambassador of song for MATC; and 3) provides both fun and social experience. Auditions are held the first week of each semester. One college transfer credit is given.

Jazz Ensemble

MATC’s Jazz Ensemble has become one of the top jazz groups in the state. From the premiering of new, original jazz works, to their featured performance with Maynard Ferguson and his band, the Jazz Ensemble has drawn enthusiastic support from Wisconsin’s jazz “freaks.” Membership is by audition and provides the student with one credit.

Instrumental Ensemble

MATC’s Instrumental Ensemble provides students with the opportunity to participate in smaller ensembles covering a wide range of musical styles, ranging from rock to classical. It is open to all students and provides one college credit.

Community Show Choir

The Community Show Choir is a group dedicated to singing popular music. It is open to anyone in the Madison community as well as to any student at MATC. Music is selected from popular styles which include Broadway, Rock, Motion Picture, etc. This group is open to everyone without an audition.

Community Jazz Band

The Community Jazz Band is an adult Big Band Jazz Ensemble made up of MATC students and members of the community. The group rehearses and performs music from the best jazz composers. No audition is required.
Auto Parts Sales

Auto parts sales stocks and acquires parts and supplies for the automotive and diesel shops' projects. Also carried are electronics kits and accessories; safety equipment and hardware. The service is open from 7:30 a.m. to 6:30 p.m., Monday through Friday at the Truax campus. Staff and students are welcome.

Barber/Cosmetologist services

The Barber/Cosmetologist program, located at the Downtown Education Center, offers all hair, skin and nail services under instructor supervision. These services, and others, are available to students, staff, faculty and the public. Hours are Monday through Friday from 12:30 to 4:00 p.m. For appointments call 246-2404.

Bookstores

Necessary books and supplies are sold to students and staff at a price which represents cost plus approximately 20 percent and freight. This gives students a discount and still covers the losses from unsold and defective materials. Because the bookstores are non-profit units, they cannot afford the risks of dealing in used books. Books may not be charged, and checks are accepted only in exact amount of payment. The Truax bookstore is open from 7:30 a.m. to 4:00 p.m., Monday through Friday. The Downtown Education Center bookstore is open from 8:00 a.m. to 3:45 p.m., Monday through Friday.

Used Book Sale

The Used Book Sale at the Truax campus is a service provided to all MATC students by the Marketing Club. Students can sell their used textbooks on consignment and/or purchase textbooks at a reduced price.

The Book Sale office, located in rooms 140D and 141B, usually begins collecting books for sale during the final exam week of each semester. Check the Student Bulletin or Used Book Sale office for details on dates and hours of operation. A brochure which describes how the Used Book Sale operates is available in the office.

MATC Child Care Centers

The MATC Child Care Centers at the Truax campus and Downtown Education Center provide care for children of full- or part-time MATC students during the regular school year. The centers serve children between the ages of two-and-a-half to six years from 7:30 a.m. to 5:00 p.m. A parent advisory committee makes recommendations to staff regarding center activities and policy. Fees are based on the going rate for child care in the community. Parents may register by contacting the centers directly. Call the Truax center at 246-6446 or the Downtown center at 258-2424. Registration is on a first-come, first-served basis.

Cracker Barrel

The Cracker Barrel is a small shop located within the college. It is operated by fashion merchandising students and serves MATC students, staff, faculty and nearby residents. Store image is projected throughout—in the decor, customer service and merchandise available. Students design the decor each year, establish the image, create the promotional materials, and buy and sell the merchandise, which varies each season. A customer usually finds a good selection of gift items, candy, greeting cards and note paper, bath products, leather items, jewelry, apparel items for both men and women, tote bags, wicker and plush animals. This unique little shop serves as a laboratory for fashion merchandising students and provides the opportunity to try out theories and facts learned in class.

Dental Hygiene Clinic

The Dental Hygiene Clinic, located on the fifth floor of the Downtown Education Center, is a teaching institution where dental hygiene students perform oral prophylaxis (cleaning) and other dental services such as x-rays, study models, topical fluoride treatments, and oral hygiene instruction. These services are available to all students of the college for a small fee.

The service cannot be construed as a complete dental and oral examination. The interpretation of x-rays and the diagnosis of dental defects are not the purpose of this clinic, but the information obtained by the dental hygiene student is available to the patient's dentist upon request. A dentist makes the proper interpretation of any diagnostic material as required by state law.

Food Service

Students and staff are invited to patronize the college food service facilities, operated by the Culinary Trades Department at the Truax campus.

The Cafeteria opens at 7:30 a.m. for beverages and baked goods. Hot breakfasts are served from 8:00 a.m. to 10:00 a.m.; lunch from 10:30 a.m. to 1:00 p.m. (Mon. through Fri.); dinner 4:00 p.m. to 5:45 p.m. (Mon. through Thurs.). Self-service soup, salad bar and cold sandwiches are available from 10:30 a.m. to 5:30 p.m. Monday through Thursday, and until 3:00 p.m. on Fridays.
The Snack Bar offers fast food fare from 11:00 a.m. to 2:30 p.m. (Mon. through Thurs.) and until 2:00 p.m. Friday.

The Gourmet Dining Room features gourmet luncheons at 11:30 a.m. on Tuesdays and Thursdays throughout the school year. Reservation tickets are available from the cafeteria cashiers usually up to two weeks prior to each service date. Call 246-6369 for further information.

The Retail Bake Shop, located across from the Cracker Barrel, is open one day each week. The current semester hours are posted at the Bake Shop.

The Downtown Carroll Street Cafe is open from 8:15 a.m. to 1:45 p.m. Monday through Friday.

MATC Food Money Coupon Books may be purchased from the Truax and Downtown cafeteria cashiers. These books contain $25.00 worth of coupons that can be used at any of the Culinary Trades food service facilities. The books are sold for $22.50 throughout the school year.

In addition to these facilities, there are commercial vending areas throughout the buildings. Direct problems or comments regarding the vending machines to the Bookstore.

Microcomputer labs

There are many microcomputer resources available for student use. At the Truax campus, the Information Resource Center has IBM and Apple microcomputers available on a sign-up basis. Open times are available in other labs depending on classroom requirements. Check the schedule posted in the various labs for open times.

Optical Dispensary and vision screenings

The Optical Dispensary is operated by Optometric Technician students under instructor supervision and serves students, staff and faculty. Free of charge services include adjustments and minor repair of eyewear, fitting of prescription safety glasses, and complete vision and eye health screenings, which determine whether an individual requires further eye care from a vision specialist. Vision screenings are available by appointment only; contact the Optometric Technician office. Hours are posted every semester.

Recreation Center

The Recreation Center's services include film sales and one-day developing; newspaper, pizza and health item sales; and camping equipment rental.

The Recreation Center offers video games, billiards, foosball and board games. The center hosts the Association of College Unions–International and campus tournaments in billiards, backgammon, table soccer and other events. The facility may be used for club or group functions by making arrangements with the Recreation Center manager.

Come join the fun at the MATC Recreation Center!

Telecommunications

Telecommunications, a part of MATC's media group, serves three major functions: videocourses (including College by Cassette), teleconferencing, and operating the instructional television fixed service microwave system.

Videocourses include business, general studies, and technical and industrial offerings. These electives may be applied to MATC's vocational degrees and diplomas. Typically, registered students take courses at home or work using textbooks, television study guides, and a set of videotaped lectures. Instructors provide regular support, including giving and grading assignments and exams. Students are typically expected to attend three to six sessions on campus during the semester.

Teleconferencing is fed to District 4 by MATC's two commercial satellite antennas, which receive programs from almost all of the available satellite. Many teleconferences are scheduled each month; make inquiries through the Telecommunications office. Topics range from medicine to business to marketing and computers. The conferences feature top national and international experts who make live presentations to conference participants all over the world. The participant, in turn, may speak with these professionals directly via a telephone interconnect.

Instructional television fixed services (ITFS) is a video microwave system which interconnects all MATC District 4 campuses and many other institutions and households. ITFS allows MATC to provide teleconferences, videocourses, general information, and administrative and in-service communications to the entire district.

For further information, call the Telecommunications office at (608) 246-6288.

Television Lounge

The Television Lounge features a large-screen television. In addition to regular programming, special events and the Programs and Activities Council's Film Series are scheduled in this area. The lounge may be available for instructional use after 2:30 p.m. Arrangements for the Television Lounge are made through the Recreation Center manager. No food or beverages are allowed in this area.
### Programs of study

#### Location key

- **M** = Madison Trust campus and education centers
- **F** = MATC–Fort Atkinson
- **P** = MATC–Portage
- **R** = MATC–Reedsburg
- **W** = MATC–Waukesha
- *** = First year only**

Satellite campuses add or discontinue programs periodically. Please contact the Admissions office for information on current program availability.

### Apprenticeship

<table>
<thead>
<tr>
<th>Program</th>
<th>Location(s)</th>
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<tbody>
<tr>
<td>Barber/Cosmetologist</td>
<td><strong>M</strong></td>
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<tr>
<td>Bricklaying and Masonry</td>
<td><strong>M</strong></td>
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<tr>
<td>Carpenter</td>
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<tr>
<td>Cement Finishing</td>
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<td>Construction Electrician</td>
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<td>Glazing</td>
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<tr>
<td>Industrial Electrician</td>
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<tr>
<td>Ironworking</td>
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<tr>
<td>Machinist</td>
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<tr>
<td>Millwright</td>
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<tr>
<td>Painting and Decorating</td>
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<tr>
<td>Plastering</td>
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<tr>
<td>Plumbing</td>
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<tr>
<td>Sheet Metal</td>
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<tr>
<td>Steamfitter</td>
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<tr>
<td>Tool and Die</td>
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### Art

<table>
<thead>
<tr>
<th>Program</th>
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<tbody>
<tr>
<td>Associate Degree</td>
<td><strong>M</strong></td>
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<tr>
<td>Commercial Art</td>
<td><strong>M</strong></td>
</tr>
<tr>
<td>Photography</td>
<td><strong>M</strong></td>
</tr>
<tr>
<td>Printing and Publishing Technology</td>
<td><strong>M</strong></td>
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<tr>
<td>Visual Communications</td>
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### Business

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<thead>
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<th>Program</th>
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<tbody>
<tr>
<td>Associate Degree</td>
<td><strong>M P R W</strong></td>
</tr>
<tr>
<td>Accounting</td>
<td><strong>M P R W</strong></td>
</tr>
<tr>
<td>Administrative Assistant-</td>
<td><strong>M F P W</strong></td>
</tr>
<tr>
<td>Information Processing</td>
<td><strong>M F P W</strong></td>
</tr>
<tr>
<td>Administrative Assistant-Secretarial</td>
<td><strong>M F P R</strong></td>
</tr>
<tr>
<td>Business Mid-Management</td>
<td><strong>M F P R W</strong></td>
</tr>
<tr>
<td>Court and Conference Reporting</td>
<td><strong>M</strong></td>
</tr>
<tr>
<td>Data Processing–Computer Operations</td>
<td><strong>M</strong></td>
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<tr>
<td>Data Processing–Computer Programming</td>
<td><strong>M</strong></td>
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<tr>
<td>Finance</td>
<td><strong>M F P R W</strong></td>
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<tr>
<td>Medical Office Mid-Management</td>
<td><strong>M P R W</strong></td>
</tr>
<tr>
<td>Medical Secretary</td>
<td><strong>M P</strong></td>
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</table>
PROGRAMS OF STUDY

Vocational Diploma
Accounting Assistant................................................. M F P W
Data Entry Operations .................................................. M F P W
Legal Transcriptionist ..................................................... M
Medical Transcriptionist ................................................... M
Office Assistant................................................................. M F P R W
Secretary........................................................................ M F P R

Culinary Trades
Associate Degree
Restaurant and Hotel Cookery........................................... M

Vocational Diploma
Food Preparation Assistant ............................................. M

Less Than One Year Diploma
Food Service Aide ........................................................... M

General Studies
Associate Degree
Liberal Studies−Associate in Science ................................ M
Liberal Studies−Associate in Arts......................................... M
Human Service Associate ..................................................... M

Health Occupations
Associate Degree
Associate Degree Nursing............................................... M F R W
Dental Hygienist ............................................................... M
Medical Laboratory Technician .......................................... M
Occupational Therapy ......................................................... M
Optometric Technician ......................................................... M
Radiography ........................................................................ M
Respiratory Therapy ............................................................ M

Vocational Diploma
Dental Assistant ............................................................... M
Medical Assistant ............................................................... M
Pharmacy Technician .......................................................... M
Practical Nursing ................................................................. M F*
Surgical Technician ............................................................. M

Less Than One Year Diploma
Nursing Assistant ............................................................. F P R W

Home Economics
Associate Degree
Child Care and Development ........................................... M
Clothing Design and Sales .................................................. M
Dietetic Technician ............................................................. M
Interior Design ................................................................. M

Marketing
Associate Degree
Hospitality Management ................................................... M
Insurance Services ............................................................ M
Marketing ................................................................. M F* P* R* W*
Marketing−Fashion Merchandising .................................... M
Real Estate ................................................................. M
Recreation Resource Operation .......................................... M
Supervisory Management .................................................. F P R W
Tourist Recreation ........................................................... M

Vocational Diploma
Small Business Operations ............................................. M

Public Safety
Associate Degree
Fire Protection Technician ................................................ M
Police Science ................................................................. M

Less Than One Year Diploma
Emergency Medical Services Specialist ............................ M

Technical and Industrial
Associate Degree
Architectural Technology .................................................. M
Automotive Technology ..................................................... M
Civil Engineering Technology .............................................. M
Electronics ................................................................. M W*
Industrial Welding Technology ......................................... M
Mechanical Design Technician ........................................... M W*

Vocational Diploma
Auto Body ................................................................. M
Auto Body Servicing ........................................................ M
Auto Mechanics .............................................................. M
Automotive Technician ....................................................... M
Barber/Cosmetologist ....................................................... D
Diesel and Heavy Equipment Mechanics ............................ M
Drafting/Architectural ....................................................... M
Electronic Servicing ........................................................ M
Industrial Maintenance ..................................................... M
Marine, Motorcycle and Outdoor Power Equipment ............... M
Welding ................................................................. M
Wood Technics ............................................................... M

45
Admission requirements: high school diploma or equivalent. Helpful high school experience includes, but is not limited to, English, math, physics, chemistry, agriculture, machine shop and welding. Work experience on a farm or related ag-business would also be helpful.

FIRST YEAR

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>412-372 Diesel Transmissions and Drivelines</td>
<td>10</td>
</tr>
<tr>
<td>420-330 Metal Processes I</td>
<td>2</td>
</tr>
<tr>
<td>521-394 Drawing Interpretation</td>
<td>1</td>
</tr>
<tr>
<td>801-356 Communications I</td>
<td>1</td>
</tr>
<tr>
<td>804-379 Mathematics II</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Semester</th>
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</tr>
</thead>
<tbody>
<tr>
<td>070-302 Agricultural Implements Laboratory (second 9 weeks)</td>
<td>5</td>
</tr>
<tr>
<td>070-301 Agricultural Implements Related—Tillage and Planting</td>
<td>1</td>
</tr>
<tr>
<td>412-338 Diesel Equipment Maintenance</td>
<td>1</td>
</tr>
<tr>
<td>412-369 Diesel Electrical Systems (first 9 weeks)</td>
<td>5</td>
</tr>
<tr>
<td>420-331 Metal Processes II</td>
<td>2</td>
</tr>
<tr>
<td>804-380 Mathematics III</td>
<td>1</td>
</tr>
<tr>
<td>806-363 Science I</td>
<td>2</td>
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SECOND YEAR

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>070-304 Agricultural Implements Laboratory (second 9 weeks)</td>
<td>5</td>
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<tr>
<td>070-303 Agricultural Implements Related—Harvesting</td>
<td>2</td>
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<tr>
<td>412-338 Air Conditioning</td>
<td>2</td>
</tr>
<tr>
<td>412-375 Diesel Fuel Systems I (first 9 weeks)</td>
<td>5</td>
</tr>
<tr>
<td>419-312 Mobile Hydraulics</td>
<td>2</td>
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</table>

<table>
<thead>
<tr>
<th>Second Semester</th>
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</thead>
<tbody>
<tr>
<td>070-305 Agricultural Equipment Accessories</td>
<td>2</td>
</tr>
<tr>
<td>412-337 Diesel Shop Operations</td>
<td>1</td>
</tr>
<tr>
<td>412-373 Diesel Engines</td>
<td>10</td>
</tr>
<tr>
<td>809-356 Human Relations</td>
<td>1</td>
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</tbody>
</table>

Credits

10  
2  
1  
15  
5  
1  
5  
2  
17  
5  
2  
16  
2  
1  
10  
1  
14
Agridevelopment/Farm Business Production and Management

Less Than One-Year Diploma

The objective of the Agridevelopment program is to provide farm families with intensive basic skills which will better prepare them for the Farm Business Production and Management program. Instruction is planned over a two-year period, but individual enrollment is on an annual basis. This program is composed of lecture, demonstrations, field trips and small group instruction. Six to 36 hours of on-farm instruction and technical assistance is provided for each student. These pre-scheduled sessions assist the student in the adoption, application and assessment of the production and management skills taught in group instruction. Dairy, livestock and crop production, and management practices applicable to the family farm are taught. A special emphasis is placed on farm accounts, business analysis and farm financial management.

Enrollment for the program is open to any individual who is beyond high school age and is actively engaged in or about to enter farming. This includes farm owners, operators, renters, partners, farm managers and hired persons. Both men and women are encouraged to enroll. Enrollees should register in Farm Business Production and Management and attend regularly-scheduled group instruction sessions.

Training in this program is on a year-round basis, and application may be made at any time. It is advised, however, that students enroll during the summer or early fall. Students who have completed the Agridevelopment program will be granted advanced standing for the "Operating the Farm Business" course when enrolling in the Farm Business Production and Management program.

Note: This program does not qualify for federal veterans benefits.

Number Course Name Credits

Biotechnology Laboratory Technician

Associate in Applied Science Degree

The Biotechnology Laboratory Technician program emphasizes the skills and competencies necessary for entry-level employment in laboratories. The program focuses on the analytical techniques and materials basic to the commercial development of useful products from biological systems and micro-organisms. Proficiency in laboratory skills and technologies as well as effective communications and employment skills are included. Individuals who like the detail, exactness and challenge of laboratory work are encouraged to apply.

Graduates of the program may seek entry-level employment in public or private laboratories for positions titled scientific helper, laboratory assistant, laboratory technician, laboratory tester or laboratory worker. These laboratories are found in universities, pharmaceutical companies, food processing industries, companies performing research and development and companies involved in plant and animal breeding.

Admission to the program is by demonstrating competence in basic mathematics, science and English usage. Suggested coursework for recent high school graduates includes high school algebra, biology, chemistry and vocational agriculture. Competency may be assessed by a combination of testing ASSET, ACT or equivalent) and/or personal interviews.

FIRST YEAR

First Semester Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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<tr>
<td>007-100</td>
<td>Introduction to Biotechnology</td>
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<tr>
<td>007-106</td>
<td>Hazardous Materials/Radioisotopes</td>
<td>3</td>
</tr>
<tr>
<td>007-103</td>
<td>Introduction to Basic Laboratory Techniques and Instruments</td>
<td>3</td>
</tr>
<tr>
<td>806-104</td>
<td>General Cell Biology</td>
<td>4</td>
</tr>
<tr>
<td>806-111</td>
<td>Chemistry I</td>
<td>4</td>
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</table>

Second Semester

<table>
<thead>
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<th>Course Name</th>
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<tbody>
<tr>
<td>007-104</td>
<td>Bioseparation Techniques</td>
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<tr>
<td>007-105</td>
<td>Fermentation Technology</td>
<td>3</td>
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<tr>
<td>007-174</td>
<td>General and Applied Microbiology</td>
<td>5</td>
</tr>
<tr>
<td>801-151</td>
<td>Communication Skills</td>
<td>3</td>
</tr>
<tr>
<td>806-112</td>
<td>Chemistry II</td>
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SECOND YEAR

First Semester

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<tbody>
<tr>
<td>007-121</td>
<td>Applied Biochemistry</td>
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<tr>
<td>007-122</td>
<td>Bioseparation Modules I</td>
<td>3</td>
</tr>
<tr>
<td>007-123</td>
<td>Cell Culturing</td>
<td>3</td>
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<tr>
<td>801-152</td>
<td>Communication Skills</td>
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<tr>
<td>809-197</td>
<td>Contemporary American Society</td>
<td>3</td>
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<tr>
<td></td>
<td>Elective</td>
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Credits: 17
Dairy Herd Management

One-Year Diploma

This program is designed to provide intensive training for the management of large dairy herds. Through training in the classroom, laboratory and on the farm, students gain the skills and knowledge necessary to perform the duties of a herd manager. Students are assigned to farms for in-depth training in such areas as feeding, herd health, milking procedure and equipment, records, breeding and herd managerial skills. Communications skills, as required by a herd manager, are also stressed during instruction.

Admission requirements follow those for the college.

Students who select the Dairy Herd Management program are advised to have the following qualifications:

1. High school graduation or equivalency with courses in vocational agriculture, animal husbandry, mathematics and biology;
2. Experience with, interest in and capacity for working with dairy animals;
3. Good physical and emotional health;
4. Desirable personal traits including initiative, dependability, reliability and an understanding and love for dairy herd production.

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Credits</th>
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<tbody>
<tr>
<td>091-301 Dairy Business Management</td>
<td>2</td>
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<tr>
<td>091-303 Milk Production</td>
<td>2</td>
</tr>
<tr>
<td>091-304 Dairy Cattle Industry</td>
<td>2</td>
</tr>
<tr>
<td>091-325 Dairy Cattle Feeding</td>
<td>3</td>
</tr>
<tr>
<td>091-350 Dairy Laboratory I</td>
<td>3</td>
</tr>
<tr>
<td>091-360 Extended Laboratory I</td>
<td>1</td>
</tr>
<tr>
<td>091-380 Applied Agricultural Mathematics</td>
<td>2</td>
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<tr>
<td>801-356 Communications I</td>
<td>1</td>
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Second Semester

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Credits</th>
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<tbody>
<tr>
<td>091-302 Dairy Cattle Management</td>
<td>2</td>
</tr>
<tr>
<td>091-305 Dairy Housing and Equipment</td>
<td>2</td>
</tr>
<tr>
<td>091-326 Dairy Feeding and Management</td>
<td>3</td>
</tr>
<tr>
<td>091-351 Dairy Laboratory II</td>
<td>3</td>
</tr>
<tr>
<td>091-361 Extended Laboratory II</td>
<td>1</td>
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<tr>
<td>091-375 Dairy Cattle Breeding</td>
<td>2</td>
</tr>
<tr>
<td>091-376 Artificial Insemination (1 week/26 hours)</td>
<td>1</td>
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<tr>
<td>801-357 Communications II</td>
<td>1</td>
</tr>
<tr>
<td>809-356 Human Relations Survey</td>
<td>1</td>
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</table>

Farm Business Production and Management

Less Than One-Year Diploma

The objective of the Farm Business Production and Management program is to meet the needs of persons who are becoming established in the business of farming.

Instruction is planned over a six-year period, but individual enrollment is on an annual basis. This program is conducted on a two-fold basis: Group instruction at centers throughout the district and individual on-farm instruction. Group instruction consists of 36 hours yearly and is composed of lecture, demonstrations, field trips and small group instruction. Each of the six courses in the program offers twelve hours of on-farm instruction for each student. These pre-scheduled sessions assist the student in the adoption, application and assessment of the production and management skills taught in group instruction.

Enrollment for this program is open to any individual who is beyond high school age and is actively engaged in or about to enter farming. This includes farm owners, operators, renters, partners, farm managers and hired persons. Both men and women are encouraged to enroll. Many farm couples attend classes together. Enrollees should plan to attend regularly-scheduled group instruction sessions and allow time for individual instruction on their farms.

Since training in this program is on a year-round basis, application may be made at any time. It is advised, however, to enroll during the summer or early fall.

All new students entering Farm Business Production and Management must enroll in the course "Operating the Farm Business" or demonstrate that they have achieved the course competencies. The five other courses are sequenced as determined by the district, utilizing its advisory committee(s). To graduate from this program, a student must successfully complete the six required courses (18 credits).

Note: This program does not qualify for federal veteran's benefits.

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Credits</th>
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<tbody>
<tr>
<td>090-381 Operating the Farm Business</td>
<td>3</td>
</tr>
<tr>
<td>090-382 Soils Management</td>
<td>3</td>
</tr>
<tr>
<td>090-383 Crop Management</td>
<td>3</td>
</tr>
<tr>
<td>090-384 Livestock Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>090-385 Livestock Management</td>
<td>3</td>
</tr>
<tr>
<td>090-386 Farm Records and Business Analysis</td>
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OTHER COURSES

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<tr>
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<tbody>
<tr>
<td>090-380 Agridevelopment (provides advanced standing for 090-381)</td>
<td>1-6</td>
</tr>
<tr>
<td>090-387 Farm Business Management (course for graduates)</td>
<td>3</td>
</tr>
</tbody>
</table>
Farm Business Production and Management—Sheep Production

Less Than One-Year Diploma

The objective of this program is to meet the needs of persons who are becoming established in the business of raising sheep. Like the Farm-Business Production and Management program, instruction is planned over a six-year period, but individual enrollment is on an annual basis. The program is conducted on a two-fold basis: Group instruction at centers within the district and individual on-farm instruction. Group instruction consists of 36 hours yearly and is composed of lecture, demonstrations, field trips and small group instruction. Each of the six courses offers twelve hours of on-farm instruction for each student. These pre-scheduled sessions assist the student in the adoption, application and assessment of the production and management skills taught in group instruction.

Enrollment for this program is open to any individual who is beyond high school age and is actively engaged in or about to enter farming with a profitable sheep enterprise. This includes farm owners, operators, renters, partners, farm managers and hired help. Both men and women are encouraged to enroll. Individuals must demonstrate that they perform all or part of the managerial responsibilities involved in a productive sheep farm operation. The farm unit itself must be engaged in or have the ability to be a profitable sheep production unit. This program is not meant for persons who have only a future interest in raising sheep. Enrollees should plan to attend regularly-scheduled group instruction sessions and to allow time for individual instruction on their farms.

Since training in this program is on a year-round basis, application to enroll may be made at any time. It is advised, however, to enroll during the summer.

All new students entering this program must be enrolled in the course “Operating the Farm Business (Sheep Production)” or demonstrate that they have achieved the course competencies. The five other courses are sequenced as determined by the district, utilizing its advisory committee(s). To graduate from this program, a student must successfully complete the six required courses (18 credits).

Note: This program does not qualify for federal veteran’s benefits.

<table>
<thead>
<tr>
<th>Number</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>090-381</td>
<td>Operating the Farm Business (Sheep Prod.)</td>
<td>3</td>
</tr>
<tr>
<td>090-382</td>
<td>Soils Management/Marketing (Sheep Prod.)</td>
<td>3</td>
</tr>
<tr>
<td>090-383</td>
<td>Crop Management (Sheep Prod.)</td>
<td>3</td>
</tr>
<tr>
<td>090-384</td>
<td>Livestock Nutrition (Sheep Prod.)</td>
<td>3</td>
</tr>
<tr>
<td>090-385</td>
<td>Livestock Management (Sheep Prod.)</td>
<td>3</td>
</tr>
<tr>
<td>090-386</td>
<td>Farm Records and Business Analysis (Sheep Prod.)</td>
<td>3</td>
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<td></td>
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OTHER

<table>
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<tr>
<th>Number</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>090-380</td>
<td>Agridevelopment (provides advanced standing for 090-381)</td>
<td>1-6</td>
</tr>
<tr>
<td>090-387</td>
<td>Sheep Production Management (course for graduates)</td>
<td>3</td>
</tr>
</tbody>
</table>
These courses are a unique career access unit at MATC in cooperation with Gateway Technical Institute in Kenosha and the Wisconsin-Upper Michigan Florists Association. Satisfactory completion of these courses will allow an individual to enter employment in the field of horticulture at a trained level or to transfer to the Horticulture-Retail program at Gateway Technical Institute for completion of an associate degree. This is encouraged with the addition of general studies courses in the program curriculum that may also be completed at MATC. Such courses include Communications I and II, Economics, Contemporary American Society, Psychology of Human Relations, Accounting and others. This can be an easy way to start towards an associate degree in Horticulture while remaining a resident of the District 4 area. However, this is not a requirement as some students may wish to terminate their training with the courses offered at MATC.

<table>
<thead>
<tr>
<th>Number</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>001-107</td>
<td>Basic Horticulture</td>
<td>3</td>
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<tr>
<td>001-112</td>
<td>Floriculture</td>
<td>2</td>
</tr>
<tr>
<td>001-123</td>
<td>Flower Shop Operations</td>
<td>3</td>
</tr>
</tbody>
</table>

Laboratory Animal Technician

Two-Year Associate Degree

This program emphasizes the acquisition of skills and technical information necessary for entry-level positions in the laboratory of those industries and organizations producing or utilizing laboratory animals. Laboratory animals include not only rodents, rabbits, cats and dogs, but also horses, cattle, poultry, primates and any other animal used to gain information.

Graduates of this program will be competent to collect and process samples, perform laboratory tests, administer medications, perform radiography procedures, administer anesthetics, assist in surgical procedures, and perform surgery under the direction of a veterinarian or a qualified scientist. Other routine procedures include humane care, handling and restraint of the animals, maintenance of supplies and equipment, and the collection and processing of data.

Admissions requirements include: 1) high school graduation or equivalency; and 2) high school and post-secondary transcripts. High school or post-secondary courses recommended (but not required) which may be helpful to program success include accounting, agriculture, algebra, biology, chemistry, mathematics, and keyboarding.

Applicants without algebra or chemistry may be placed in these courses previous to taking or concurrently with occupational program courses.

Accepted applicants will take the ASSET test. Applicants who have taken the ACT or other equivalent test may be exempted from the ASSET. Results will be used for placement purposes.

A personal interview and evaluation with the program director or division dean may waive these requisites.

<table>
<thead>
<tr>
<th></th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>091-123</td>
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<td>091-170</td>
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<td>091-171</td>
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<td>801-151</td>
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<td>806-105</td>
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</tbody>
</table>

1 Twelve hours in classroom discussion semester 1; 12 hours of laboratory pre-internship at or near end of semester 2.
2 May be required for persons who have not had high school algebra or chemistry.
3 Electives must be approved by program director.
**Taxidermy**

**Less Than One-Year Diploma**

This program is designed to provide intensive training in taxidermy skills. Through training in the classroom and laboratory, students gain the skills and knowledge necessary in taxidermy. A very large percentage of the training consists of laboratory “hands-on” instruction working with actual animal mountings. Students graduating from this program are expected to be capable of working as taxidermists either in self-employment or as employees in other professional shops.

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<td>Taxidermy-Upland Birds</td>
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<td>Taxidermy-Small Mammals</td>
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<td>Taxidermy-Game Heads</td>
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<tr>
<td>095-310</td>
<td>Taxidermy-Large Mammals and Rug Making</td>
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<td>095-312</td>
<td>Fish Painting-Novelties</td>
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<tr>
<td>095-314</td>
<td>Taxidermy-Waterfowl/Ducks</td>
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**Veterinary Technician**

**Associate in Applied Science Degree**

This program emphasizes acquisition of skills and technical information necessary to assist in the delivery of services to patients and clients under the supervision of a licensed veterinarian. Technicians assist veterinarians by collecting histories, assisting with physical examinations, and performing laboratory testing procedures. Other routine duties include the restraint of animals, office reception and recordkeeping, administration of medications, feeding and care of animals, maintenance of sanitation, medical and surgical nursing, inventory control, assisting with anesthetic administration, anesthesia monitoring, performing radiographic procedures, client education, and communication with clients.

Admissions requirements include: 1) high school graduation or equivalency; and 2) high school and post-secondary transcripts. High school or post-secondary courses recommended (not required) which may be helpful to program success are: accounting, agriculture, algebra, biology, chemistry, mathematics, and keyboarding.

Applicants without algebra or chemistry may be placed in these courses previous to taking or concurrently with occupational program courses.

Accepted applicants will take ASSET test. Applicants who have taken the ACT or other equivalent test may be exempted from the ASSET. Results will be used for placement purposes.

A personal interview and evaluation with the program director or division dean may waive these requisites.

**FIRST YEAR**

<table>
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<tr>
<th>First Semester</th>
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<tr>
<td>091-123</td>
<td>Introduction to Laboratory Animal Science</td>
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<td>091-170</td>
<td>Veterinary Medical Terminology/ Occupational Preparation</td>
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<tr>
<td>091-172</td>
<td>Animal Care and Management I</td>
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<tr>
<td>801-151</td>
<td>Communication Skills I</td>
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<tr>
<td>806-105</td>
<td>Animal Biology</td>
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<td>Psychology of Human Relations</td>
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**Second Semester**

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**SECOND YEAR**

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<td>Laboratory Techniques I</td>
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<tr>
<td>091-171</td>
<td>Animal Care and Management II</td>
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<td>806-110</td>
<td>Technical Chemistry</td>
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<td>Contemporary American Society</td>
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**Second Semester**

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**SUGGESTED ELECTIVE OR DEVELOPMENTAL COURSES**

<table>
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<th>Electives must be approved by program director.</th>
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<tbody>
<tr>
<td>103-130 Microcomputer Applications</td>
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<tr>
<td>804-201 Intermediate Algebra</td>
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<tr>
<td>804-306 Pre-college Algebra</td>
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<tr>
<td>804-332 Mathematical Fundamentals</td>
</tr>
<tr>
<td>804-380 Mathematics III</td>
</tr>
<tr>
<td>806-111 Chemistry I</td>
</tr>
<tr>
<td>806-112 Chemistry II</td>
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<tr>
<td>806-377 Pre-college Chemistry</td>
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</table>

1 Twelve hours in classroom discussion semester 1: 12 hours of laboratory pre-internship at or near end of semester 2.

2 May be required for persons who have not had high school algebra or chemistry.
Alternative Learning Division
The Alternative Learning Division is dedicated to helping everyone succeed at MATC. Tutoring, citizenship classes, pre-college skill development and GED preparation are just a few of the services Alternative Learning provides.

Adult Basic Education

The Adult Basic Education Department offers all students and the general public the opportunity to review, relearn or improve basic academic skills such as reading, writing, study skills and more. Learning Centers are located throughout District 4.

Academic programs and classes

The following classes offered by the Adult Basic Education Department. Programs are designed to provide individualized adult learning opportunities to meet the specific academic and learning needs of students.

Support Instruction and Peer Tutoring

Anyone enrolled in an occupational training program or a general studies class at MATC can receive individualized support instruction to improve the basic skills required to successfully complete class assignments. Academic staff and peer tutors work on an individual basis with students. Supplemental instruction is offered in all of the following areas: English grammar, spelling, writing, basic composition, basic and intermediate math skills, and reading comprehension.

Adult Basic Education (ABE)

ABE helps persons develop their skills in basic mathematics, reading and writing from grade levels 0 through high school. Classes are offered in the days and evenings, and instruction is geared to the needs of students on an individual basis.

GED/High School Equivalency Preparation

Instruction is provided for individuals who are preparing to take the GED (General Education Development) exams in the five testing areas—writing skills, social studies, science, reading and mathematics. Additional instruction in health, civics, literacy and employment skills is provided for students seeking the HSED (High School Equivalency Diploma).

TV GED

Assistance is offered to students who prepare for GED exams via the GED program televised on public television (Channel 21). Instructors provide assistance through telephone conferences and special help sessions.

English as a Second Language (ESL)

Participants whose native language is not English can attend classes to acquire knowledge of American culture and to improve their English speaking, listening, writing and reading skills. Instructional staff work with students who are just beginning to learn English as well as students who have more advanced English skills. Classes are open to American citizens, permanent residents and refugees.

Citizenship Classes

Classes are offered to prepare individuals to apply for United States citizenship and to take the oral exam.

Pre-College Skills

These classes provide a chance for individuals to enhance their basic reading, math, communication and study skills before enrolling in occupational programs or classes at MATC.

Career Education and Job-Seeking Skills

Structured classes, as well as individual assistance, are offered to help identify and make career choices and to develop skills to effectively seek employment. These skills include resume writing, job application completion, interviewing skills, and job-seeking strategies. Career identification is coordinated with materials from the Wisconsin Career Information System.

Program services

In addition to the academic programs sponsored by the Adult Basic Education Department, the following supportive services are offered to students:

Basic Skills Testing

Assessment testing is offered in all basic skills areas including vocabulary, reading comprehension, math computational and reasoning skills, spelling and English grammar.

Special Needs Student Services

Special needs students, those with a learning problem or physical handicap which may inhibit their academic success, can work with instructors and peer tutors to receive basic skills instruction or assistance in their program areas.

Fees

All basic skills and instructional support classes are offered free of charge and are scheduled during the daytime and evening hours. Some of the employability skills and other workshops charge a nominal fee.
Other programs and services

Minority Recruitment and Support Services

To serve the needs of minority communities in District 4 (Asians, Blacks, Hispanics and Native Americans), this office provides recruitment, advisement, referrals and other supportive services. Staff members work closely with students to help them enroll in and successfully complete any MATC occupational, continuing education, basic skills or other special programs.

Homeless Basic Skills Program

Through this program, adult basic education and computer literacy instruction are provided at homeless shelters in the Madison area. Established linkages between the shelter programs and the sponsoring campuses enable students to continue their educational programs after they leave the shelters.

Intergenerational Literacy Programs

These programs, which are cooperative efforts with agencies that provide instruction to youth, recognize that the educational needs of parents and children must be addressed concurrently. The programs focus on three components: adult basic education for parents, an approved curriculum for children, and a child development/parenting component that brings parents and children together in activities to enhance skills and relationships.

Amnesty Project

The ESL/Civics Project provides English as a second language and civics instruction, along with basic skills and life skills instruction, to eligible legal aliens and special agricultural workers. ESL and civics instruction is required of individuals who applied for permanent resident status under the Immigration and Reform Control Act of 1986 and who are seeking a certificate of satisfactory pursuit.

Workplace Literacy Programs

Through cooperative efforts with business, industry, and city and county government agencies, basic skills instruction is provided at numerous work sites throughout district 4. Onsite instruction is often workplace specific and scheduled at flexible hours.

Student Literacy Corps

Through a grant from the U.S. Department of Education, students enrolled in selected programs at MATC are trained to tutor adults in communities within the district. The experiential program enables students to see the need for and the benefits of a volunteer literacy effort. At the same time, clients profit from the one-to-one instruction.
An apprenticeship is a training program that involves an agreement between an employer, or an employer/employee agency, and the apprentice usually lasting from two to six years. It is an ideal learning situation which combines work experience on the job with related classroom training through the college. MATC’s Apprenticeship Department coordinates and oversees apprenticeships in a wide variety of skilled trades.

Barber/Cosmetologist
Bricklaying and Masonry
Carpentry
Cement Finishing
Glazing
Construction Electrician
Industrial Electrician
Ironworking
Machinist
Millwright
Painting and Decorating
Plastering
Plumbing
Sheet Metal
Steamfitter
Tool and Die

Apprenticeship

An apprentice training program is a legally-constituted program of education set up under Wisconsin state law in such a way that the employer and the apprentice are fairly treated under a contractual agreement called an indenture varying in length from two to six years. During this time, the apprentice is assured of receiving well-rounded training in his or her selected field, and the employer is assured of having a screened, tested and apt employee.

This is accomplished through the cooperative efforts of: The Bureau of Apprenticeship Standards of the Department of Industry, Labor and Human Relations (DILHR), which supervises the work of the apprentice on the job to see that it meets the standards set for the particular trade; the employer, who provides work experience for the apprentice; and the college, which provides the instruction in trade technology and related sciences.

A combination of work on the job and related training in school, each supplementing the other, forms the basis for close to an ideal learning situation.

To be eligible for apprenticeship, a person must be employed in the field and meet the application and testing procedures of the trade in which he or she wishes to participate. The rules and policies for apprenticeship may vary from the information contained in this catalog because of policies set forth by outside agencies and advisory committees.

Offerings in the Apprenticeship Division may vary depending upon the needs of business and industry. It must be kept in mind that apprenticeship programs belong to their respective industries. Therefore, all listed programs may not be offered each year. Contact the MATC Apprenticeship office to be sure the program described is available.

Content of indenture

The terms of indenture are defined under the supervision of DILHR’s Bureau of Apprenticeship Standards with the aid of joint labor and management apprenticeship committees. These four major terms, which determine the content of an indenture, are:

1. Term of training, which varies from two to six years.
2. Schooling and school attendance, which ranges from 288 to 800 hours.
3. Work processes through which the apprentice is to be rotated on the job.
4. Wages to be paid in step increases to the apprentice for the duration of his/her apprenticeship.

Joint Apprenticeship Committees

Joint apprenticeship committees are made up of representatives of labor and management who serve in an advisory capacity to the college in connection with the planning of apprenticeship programs for both day and evening classes. Recommendations are made relative to curriculum content, equipment needs and other information necessary to keep the apprenticeship instruction and programs current with the needs of industry.
Apprenticeship Counseling Service

Prospective applicants for apprenticeship may receive counseling relative to job opportunities, wages, nature of work, and special aptitudes required for the apprenticeship trades by contacting the campus administrator/apprenticeship chairperson at 2125 Commercial Avenue (246-5200).

Application for apprenticeship

A variety of procedures are followed by the Joint Apprenticeship Committee representing the numerous crafts in the Madison area. The associate chairperson will furnish, upon request, application procedure information.

Program offerings

MATC currently offers technical-related training for apprenticeships in the following trades:

Construction Trades
- Bricklaying and Masonry
- Carpentry
- Cement Finishing
- Construction Electrician
- Glazing
- Ironworking
- Painting and Decorating
- Plastering
- Plumbing
- Sheet Metal
- Steamfitting (construction)
- Steamfitting (service)
- Tile, Terrazzo and Marble Finishing

Industrial Trades
- Electrician (industrial)
- Machinist
- Millwright (maintenance mechanic)
- Sheet Metal (industrial)
- Tool and Die

Service Trades
- Barber/Cosmetologist

The Apprenticeship Division also offers courses and programs in occupational and trade retraining or upgrading. For further information, call (608) 246-5271.

- First Aid and Safety
- Ground Water
- Job Safety and Training—Electrical
- Job Safety and Training—Telecommunications
- Plumbing Code Review
- Quality Development
- Supervisory Management
- Wastewater Treatment
- Related evening courses for apprentices and journeypersons

Barber/Cosmetologist

As an apprentice barber/cosmetologist, you may participate in the following types of activities: the basic and advanced cutting and styling of hair, shaving, hair coloring, chemical waving, the conditioning of hair, hair relaxing and straightening, hairpiece and wig care and styling, giving of facials, skin care and correct application of cosmetic make-up, cosmetic art (facial massage plus use of cosmetic preparations), manicuring, scalp services and shampooing, and other activities related to hair and skin care. You will also be taught the proper care of shop equipment, shop maintenance and sanitation, plus the use of therapeutic lights. You will have training in public relations and recordkeeping.

There are two different types of barber/cosmetologist apprenticeship programs. One type is for persons without any previous training and the other is for persons with previous training. People who do not have previous training will be required to attend 288 hours of related training, and those with previous training who are not graduates of approved barber/cosmetology schools will be required to attend related training as well.

Bricklaying and Masonry

Persons in this trade lay building materials such as brick, structural tile, concrete, cinder, glass, gypsum and terra cotta block. They construct and/or repair walls, partitions, arches, sewers and other structures such as fireplaces and chimneys. They also fasten brick, terra cotta veneer or other natural or man-made products to faces of a structure. They may weld metal parts to steel structural members. Persons in this trade usually serve a four-year apprenticeship consisting of 6,240 hours of on-the-job and school training. The related classroom training includes 435 hours of day and evening classes.
Carpentry

Persons in this trade do form building for such items as floors, beams, joists, wall columns, stairs, etc. They also do rough framing, roof framing, stair framing and scaffold building in both home and heavy construction. They may complete outside finishing by installing such items as cornices, outside wall trim, door, window and roof coverings. They may also install inside finishing materials such as doors, windows and their trim, baseboards, cabinets, wardrobes, flooring, ceiling materials and stain work, or they may apply exterior and interior hardware to doors, windows and cabinets. They may do miscellaneous repair work, set up work for machinery and other equipment, and they may have to weld.

Cement Finishing

As a cement mason, you may participate in the following types of job activities: setting scribes to line; tamping and rodding concrete; floating and troweling masonry surfaces; using edges and joints; chipping concrete; patching concrete, rubbing and brushing concrete; establishing grade lines and heights; forming valleys and summits; setting expansion strips; setting curb and gutter scribes; finishing curbs, gutters, sidewalks, driveways, basement floors and wash pans; finishing foundations, walls and ceilings; laying out joints in special designs; laying risers and treads; making asphalt and master installations; waterproofing; spreading and finishing all epoxy materials on floors and other surfaces; and safety in the related areas.

Glazing

A glazier takes part in the following types of job activities: metal fabrication; hardware application; tube installation; sash and joint installation; door installation; installing facing materials; application of tape, putty, vinyl and neoprene; and installing gaskets, doorlights, mirrors, shower doors, plaster, sealant and solar panels.

Electrician (Construction)

Electricians lay out, install and test electrical fixtures; they also install electrical wire systems used to provide heat, light, power, air conditioning and refrigeration in homes, office buildings, factories, hospitals and schools. They install conduit, greenfield and other materials; and connect electrical machinery, equipment and controls. The electrician uses a wide variety of hand tools to perform various tasks.

The journeyman electrician must master both mechanical and technical skills. He/she must understand the use of meters and specialized testing equipment, be adept at troubleshooting and understand the theory behind the transmission of electrical energy.

Electrician (Industrial)

As an industrial electrician, you may encounter these types of job skills in your training (because of the varied types of employment in the electrical field, you may be required to gain additional skills from those listed): assisting in inspections of motor bearings and other electrical equipment; repairing motors, starters, push buttons, switches, fuses and other electrical equipment; assisting in the installation of electrical equipment; installing conduit; pulling wires; dismantling, cleaning and painting motors; working with hand and power tools; cutting holes; bending conduit and making minor connections; interpreting and using prints and codes to take measurements and install electrical equipment properly; troubleshooting motors and other electrical equipment; and recognizing failures and completing repairs.

Ironworking

The types of activities you may participate in while an ironworker apprentice include assisting journeypersons to unload and distribute; learning about various materials; and handling tools and equipment, always employing good safety practices. Other types of activities may include ornamental work, including layout, fabrication and erection, reinforcing layout, binding, cutting, placing and tying; structural work, including layout, fitting, connecting, hooking on, riveting and signaling; rigging; knots, cable and rope splicing; cribbing; moving and setting up machinery; and acetylene and electric welding, burning and cutting with proper handling of tanks and equipment.

Machinist

Machinists perform many varied job activities. As an apprentice, you may learn to operate equipment such as a drill press, milling machine, both horizontal and vertical, and automatic screw machines; set-up and operate machine tools; fit and assemble parts to make or repair metal parts, mechanisms, tools or machines; apply knowledge of mechanics, shop mathematics, metal properties, layout and machining procedures; interpret specifications, blueprints, sketches; make a drawing or describe parts which may have to be machined; measure, mark and scribe dimensions and reference points to layout stock for machining; verify dimensions and alignments with measuring instruments.
such as micrometers, height gauges and gauge blocks; operate mechanism or machine; observe operation, or test with inspection equipment to diagnose malfunction of machine or to test repaired machine; and perform flamecutting and arc or gas welding operations.

**Millwright (Maintenance Mechanic)**

As a millwright apprentice, you will learn to repair and maintain machines, machinery and mechanical equipment using hand tools, power tools, precision measuring and testing equipment; observe mechanical devices in operation, and listening to their sounds, locate causes of trouble; be capable of analyzing the problem and complete needed repairs; dismantle devices to gain access to and remove defective parts using hoists, cranes, hand tools and power tools; complete repairs and maintain operations in accordance with diagrams, sketches, operation manuals and manufacturers' specifications; perform preventive maintenance procedures; adjust functional parts of devices and control instruments using hand tools, levels, plumb bobs and straight edges; inspect used parts to determine changes in dimensional requirements using rules, calipers, micrometers and other measuring instruments; lubricate and service hydraulic and pneumatic devices; complete performance tests on equipment; set up and operate power equipment to make replacement parts for small repair on machinery; start and maintain service schedules recommended by equipment manufacturers; work with and maintain electrical equipment; and repair and maintain hand and power tools used in daily operations.
**Painting and Decorating**

Painting, by its simplest definition, is the process of applying a material to various substrates for the purpose of either protection, sanitation or decoration. The substrate may be wood, metal, masonry or composition and may be interior or exterior. The substrate may vary from a small house to an enormous industrial facility, structural bridges or high towers.

As an apprentice, you may participate in the following types of activities: wood finishing, print reading, erection of ladders and scaffolding, spray painting, abrasive and water floating, color mixing and matching, drywall taping, finishing and texturing, applying special coatings and special decorative finishes, hanging wallcoverings, health and safety practices, and management and communication skills.

**Sheet Metal**

A sheet metal apprentice does the following types of jobs: layout work encompassing blueprint reading, measuring and designing of any type of project in a shop or on-the-job, which may include such work processes as shearing, forming, welding, soldering, fabrication and assembly; the fabrication and installation of architectural metal, which may include such items as gutters, metal roofs, flashing, tin ducts, gravel stops and coping; the assembling and installation of heating and ventilating systems for human comfort; specialty-type work with stainless steel and aluminum; the installation of lockers, toilet partitions, metal pan ceiling, and metal decking; and flow pipe and plastic duct work. You will also learn to weld.

**Plastering**

As a plastering apprentice, you can expect to take part in the following types of job activities: the proper uses of tools and equipment; scratching and browning (all bases), including the preparation of walls and ceilings which are to receive tile, using sand and lightweight plaster; lining, dotting and screeding of different surfaces which are to receive tile; and applying thinwall. You may apply the following types of finishes: whitecoating, sandfinishing, acoustical plastering and stucco. You may also learn specialty type work with texture finishes, acoustical tile, plaster veneering, plaster coatings, fireproofing and insulating, exposed aggregate, waterproofing, bonding agents, application and artificial finishes.

**Steamfitting**

Steamfitters (occasionally called pipefitters) are craftspeople who assemble, install and maintain pipes to carry water, steam, compressed air, gases and fluids needed for processing, manufacturing, heating or cooling. The journeyman pipefitter must be able to adapt and repair pipe systems and install appliances, heating and refrigeration units and do all types of pipe welding. Pipefitters work with both high and low-pressure pipes, mostly in industrial and commercial buildings. They also install and repair residential heating and cooling equipment. They install ammonia-carrying pipelines in refrigeration plants, complex pipe systems in oil refineries and chemical and food processing plants, and also install automatic sprinkler systems. They know how to prevent corrosion, clogging and breaking of pipelines, and how to test pipes for proper operation.

**Plumbing**

Plumbers install pipes for water, gas, sewage and drainage systems. They also install sanitary facilities such as lavatories, toilets, tubs, bathroom fixtures, showers, kitchen fixtures, drinking fountains and laundry equipment. Plumbers use a variety of skills to install pipe systems. They use both hand and power tools in their work to cut, bend and thread pipes, and to make welded and soldered joints. Plumbers must also run tests on their installations to assure that the system is functioning properly and meets the Plumbing Code. They are often called upon to clear pipe lines and drains and to make repairs on faucets, valves and leaky pipes.

**Tool and Die**

This course of instruction is designed to enable apprentices to analyze specifications and prints, develop specifications from general descriptions, make drawings or sketches of tools or tool parts, plan the sequences of operations to complete a product using various tools, and to operate both hand and power tools in any work process, including drill presses, surface grinders, layout presses and shapers. They will be able to measure, mark and scribe metal stock to layout, work pieces for machining, and set up and operate the machining tools of their trade areas. They will be able to fit and assemble parts into assemblies or mechanisms, verify dimensions and alignment using measuring instruments, and hand treat tools or tool parts.
Art Department
Commercial Art

Associate in Applied Arts Degree

This two-year program prepares students who are interested in a professional career in a variety of challenging areas. The major career opportunities are illustrator, graphic designer or production artist. Jobs are in advertising agencies, publishing companies, advertising and art departments within a company, art studios or as a freelance artist. Some of the aptitudes necessary for success include aesthetic appreciation and creative imagination, a willingness to complete tasks according to technical requirements and an ability to work under pressure to meet deadlines. Previous courses that may be helpful include art and typewriting or computer skills. Students should have good command of the English language, having attained a "B" in English courses.

FIRST YEAR

First Semester

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<td>Drawing Fundamentals</td>
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<td>Design and Color I</td>
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<td>Studio Techniques I</td>
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<td>Typography</td>
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<td>801-151</td>
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<td>809-195</td>
<td>Economics</td>
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Second Semester

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<tr>
<td>201-106</td>
<td>Illustration I</td>
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<td>201-108</td>
<td>Typographical Design</td>
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<tr>
<td>201-119</td>
<td>Life Drawing I</td>
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<tr>
<td>201-136</td>
<td>Comprehensive Rendering</td>
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<tr>
<td>201-140</td>
<td>Design and Color II</td>
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<tr>
<td>201-171</td>
<td>Studio Techniques II</td>
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</tr>
<tr>
<td>801-152</td>
<td>Communication Skills II</td>
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</tbody>
</table>

Photography

Associate in Applied Arts Degree

The Photography program is designed to equip the graduate with a solid foundation in technical and aesthetic photographic skills. Graduates may find jobs as assistants in commercial and portrait studios, as technicians in professional photo processing labs, as staff members in corporate or government photo departments, or as members of film or television production crews. Desirable aptitudes and interests include the ability to previsualize subject matter, to describe visuals in written scripts, to engage in effective problem-solving, and to work well under deadlines. Previous courses in art, photography, chemistry, algebra, physics, typewriting or computer skills may be helpful. Students should be proficient in writing, having attained a "B" in previous English courses.

FIRST YEAR

First Semester

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
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<td>Studio Photo I</td>
<td>2</td>
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<tr>
<td>203-120</td>
<td>Lighting Techniques</td>
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<td>201-139</td>
<td>Design and Color I</td>
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<td>Communication Skills I</td>
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## Second Semester

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<tr>
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<td>203-141</td>
<td>Color Photo I</td>
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<td>203-173</td>
<td>Photojournalism</td>
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<tr>
<td>206-117</td>
<td>Audiovisual Techniques I</td>
<td>3</td>
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<td>801-152</td>
<td>Communication Skills II</td>
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<tr>
<td>809-125</td>
<td>Government: Process and Practices</td>
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## SECOND YEAR

### First Semester

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<td>Portrait Photography</td>
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<td>203-142</td>
<td>Color Photo II</td>
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<tr>
<td>203-186</td>
<td>Cinematography</td>
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<td>206-118</td>
<td>Audiovisual Techniques II</td>
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<td>809-199</td>
<td>Psychology of Human Relations</td>
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<td>203-176</td>
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<td>Studio Photo III</td>
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<td>Television Production</td>
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### ELECTIVES

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<tr>
<td>201-159</td>
<td>Air Brush Techniques</td>
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<td>203-199</td>
<td>Photo Internship</td>
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<td>206-110</td>
<td>Display, Design and Production</td>
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<td>206-120</td>
<td>Production, Planning and Control</td>
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## Printing

### One-Year Diploma

The Printing program provides the student with the knowledge and skills required in the graphic arts industry. Training is provided in almost every process that reproduces information on paper and other materials. Knowledge of typewriter keyboard and typing skill is highly desirable.

### First Semester

<table>
<thead>
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<th>Code</th>
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<td>Graphic Arts Photography</td>
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<td>204-307</td>
<td>Copy Preparation I</td>
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<tr>
<td>204-371</td>
<td>Introduction to Lithographic Press</td>
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<tr>
<td>204-393</td>
<td>Lithographic Preparation I</td>
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<td>801-356</td>
<td>Communications I</td>
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<td>804-379</td>
<td>Mathematics II</td>
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<td>Human Relations Survey</td>
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### Second Semester

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<td>204-329</td>
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<td>204-372</td>
<td>Lithographic Press Operations</td>
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<td>204-332</td>
<td>Instrumentation for Graphic Arts</td>
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<tr>
<td>806-307</td>
<td>Applied Physical Science</td>
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<tr>
<td>204-330</td>
<td>Employment Orientation</td>
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### GRADUATION REQUIREMENTS

32 credits with a GPA of 2.0 (C) or above. Average of 2.0 (C) or above for occupational specific courses.

### NOTES

- Safety procedures required in all labs.
- Prerequisites can be waived with divisional approval.
- Advanced standing may be gained through division deans.
- Certain associate degree or higher post secondary courses specific to the curriculum may substitute for courses upon approval of division deans.

## Printing and Publishing Technology

### Associate in Applied Science Degree

The Printing and Publishing program is designed to provide the student with knowledge of the printing and publishing industry. It acquaints the student with printing processes and provides training in the skills required to perform each process. Upon completion of the program, graduates may obtain employment and receive additional on-the-job training in such areas as production planning, estimating, sales, quality control, press production and other specialized work. A math placement assessment test is required prior to program acceptance.
**FIRST YEAR**

**First Semester**

<table>
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<th>Course Title</th>
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<td>204-101</td>
<td>Copy Preparation Techniques I</td>
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<td>204-102</td>
<td>Lithographic Techniques I</td>
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<tr>
<td>204-192</td>
<td>Introduction to Printing and Publishing</td>
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<tr>
<td>801-151</td>
<td>Communication Skills I</td>
<td>3</td>
</tr>
<tr>
<td>809-197</td>
<td>Contemporary American Society</td>
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**Second Semester**

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<th>Course Title</th>
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<td>204-123</td>
<td>Copy Preparation Techniques II</td>
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<td>204-194</td>
<td>Industrial Orientation</td>
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<tr>
<td>809-195</td>
<td>Economics</td>
<td>3</td>
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<td>809-199</td>
<td>Psychology of Human Relations</td>
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**SECOND YEAR**

**First Semester**

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<td>Graphic Arts Photography I</td>
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<td>204-111</td>
<td>Press and Finishing Techniques I</td>
<td>4</td>
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<tr>
<td>204-124</td>
<td>Copy Preparation Techniques II</td>
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<td>801-197</td>
<td>Technical Reporting</td>
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**Second Semester**

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<td>Graphic Arts Photography II</td>
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<td>204-112</td>
<td>Press and Finishing Techniques II</td>
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<td>204-152</td>
<td>Estimating for Print</td>
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**ELECTIVES**

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<tr>
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<td>Copy Preparation Techniques IV</td>
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<tr>
<td>204-190</td>
<td>Production Procedures</td>
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**GRADUATION REQUIREMENTS**

65 credits with a GPA of 2.0 (C) or above. Average of 2.0 (C) or above for occupational specific courses.

NOTES

- Safety procedures required in all labs.
- Prerequisites can be waived with divisional approval.
- Advanced standing may be gained through division deans.
- Certain associate degree or higher post secondary courses specific to the curriculum may substitute for courses upon approval of division deans.

Grades can expect to find employment as media technicians in schools, libraries, hospitals and industry. They may be required to set up, operate and perform basic maintenance of audiovisual equipment. Students interested in this field should have a strong interest in art and projected media along with an aptitude for problem solving and high aesthetic judgment.

**FIRST YEAR**

**First Semester**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>201-160</td>
<td>Studio Techniques I</td>
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<tr>
<td>203-170</td>
<td>Photography I</td>
<td>2</td>
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<tr>
<td>204-103</td>
<td>Typography</td>
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<tr>
<td>206-105</td>
<td>Communication Problems I</td>
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</tr>
<tr>
<td>801-151</td>
<td>Communication Skills I</td>
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**Second Semester**

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<td>203-171</td>
<td>Photography II</td>
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<td>206-117</td>
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<td>Sound Production Techniques</td>
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<td>801-152</td>
<td>Communication Skills II</td>
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**SECOND YEAR**

**First Semester**

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<th>Course Title</th>
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<td>Display, Design and Production</td>
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<td>206-125</td>
<td>Instructional Media Systems</td>
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<tr>
<td>206-120</td>
<td>Production Planning and Control</td>
<td>3</td>
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<tr>
<td>206-130</td>
<td>Television Production</td>
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<tr>
<td>809-195</td>
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<tr>
<td>809-199</td>
<td>Psychology of Human Relations</td>
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**Second Semester**

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<th>Course Title</th>
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<td>Audiovisual Techniques II</td>
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<td>Portfolio Preparation</td>
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<td>801-125</td>
<td>Government: Process and Practices</td>
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**ELECTIVES**

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<td>Publication Design</td>
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<td>201-159</td>
<td>Airbrush Techniques</td>
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<td>206-104</td>
<td>Visual Communications Internship</td>
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<tr>
<td>206-180</td>
<td>Advanced Media Problems</td>
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</table>

**Visual Communications**

**Associate in Applied Arts Degree**

The two-year program in visual communications trains men and women to create visual presentations in the form of slides, overhead transparencies, motion pictures and television. Students acquire a working knowledge of specialized graphic techniques and formats for these various media, as well as an operational knowledge of the equipment used for presentations.
The Business Division prepares individuals to work in a variety of areas in business, industry or government. From entry-level office positions to accounting, computer and mid-management careers in business, medical and legal professions, the division provides well-rounded, hands-on training.

**Accounting**
- Accounting Assistant
- Administrative Assistant—Information Processing
- Administrative Assistant—Secretarial
- Business Mid-Management
- Court and Conference Reporting
- Data Entry Operations
- Data Processing—Computer Operations
- Data Processing—Computer Programmer

**Finance**
- Legal Transcriptionist
- Medical Office Mid-Management
- Medical Secretary
- Medical Transcriptionist
- Office Assistant
- Secretary

---

**Accounting Associate in Applied Science Degree**

The Accounting program provides the educational background and training required for entry positions in private business and industry, governmental agencies and public accounting firms. Job experience and continuing education provide the necessary qualifications for advanced positions in the field of accounting. Keyboard skills and computer literacy are required.

**FIRST YEAR**

<table>
<thead>
<tr>
<th>First Semester</th>
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<tbody>
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<tr>
<td>102-105 Math of Finance</td>
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<tr>
<td>102-134 Business Organization and Management</td>
<td>3</td>
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<td>103-130 Microcomputer Applications</td>
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<td>801-151 Communication Skills I</td>
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18 credits

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<td>4</td>
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<td>101-123 Tax I</td>
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<td>102-138 Accounting and Payroll Systems</td>
<td>3</td>
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<td>102-160 Business Law I OR</td>
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<td>809-197 Contemporary American Society</td>
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<td>809-199 Psychology of Human Relations</td>
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17 credits

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**SECOND YEAR**

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<tbody>
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<td>101-121 Accounting III—Intermediate</td>
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<td>101-125 Cost Accounting I</td>
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<td>102-126 Principles of Finance</td>
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<td>102-137 Computerized Accounting Applications</td>
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17 credits

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<td>101-122 Accounting IV—Intermediate</td>
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<td>101-124 Auditing</td>
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<td>102-104 Business Statistics</td>
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16 credits

**RECOMMENDED ELECTIVES**

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<td>101-127 Tax II</td>
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<td>101-129 Governmental Accounting</td>
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<td>102-143 Management Techniques</td>
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<td>102-160 Business Law I</td>
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<tr>
<td>102-161 Business Law II</td>
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<tr>
<td>103-132 Lotus—Intermediate</td>
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<tr>
<td>106-172 Applied Business Training</td>
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</table>
Accounting Assistant

One-Year Diploma

Accounting Assistant majors may work in a small business and be responsible for a complete set of books or work in a larger firm under the supervision of an accountant and specialize in a certain area. Accurate records and reports of all business activity are required by industry and governmental agencies.

First Semester

<table>
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<tr>
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<th>Course Title</th>
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<tr>
<td>102-360</td>
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<tr>
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Second Semester

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<td>101-335</td>
<td>Payroll Accounting—Tax</td>
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<td>102-333</td>
<td>Principles of Business</td>
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<td>103-330</td>
<td>Microcomputers I</td>
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<td>106-103</td>
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<td>106-137</td>
<td>Document Processing 3, IV (Typing III, IV)</td>
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<td>106-184</td>
<td>Information Processing Techniques II</td>
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SECOND YEAR

First Semester

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<td>106-196</td>
<td>Machine Transcription OR</td>
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<td>106-334</td>
<td>Machine Transcription</td>
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Second Semester

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<tr>
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<td>106-185</td>
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<td>106-187</td>
<td>Integrated Office Techniques</td>
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<td>801-158</td>
<td>Technical Communications</td>
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RECOMMENDED ELECTIVES

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<tr>
<td>102-143</td>
<td>Management Techniques</td>
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</table>

Advanced standing is given for previous training or related work experience. Electives in the Business Division may be substituted for any required subject upon successfully passing an achievement examination.

Administrative Assistant

Information Processing

Associate in Applied Science Degree

The Administrative Assistant—Information Processing program prepares individuals in the technical, administrative, and interpersonal skills required to perform secretarial duties at both the operational and managerial levels in today's offices. The curriculum also provides the experiences necessary for students to successfully attain the Certified Professional Secretary (CPS) designation, the highest professional standard of achievement within the field.

FIRST YEAR

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<thead>
<tr>
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<th>Course Title</th>
<th>Credits</th>
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<tr>
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<td>Business Law I</td>
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<td>106-103</td>
<td>Filing Procedures</td>
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<tr>
<td>106-102</td>
<td>Shorthand Workshop OR</td>
<td>(2)</td>
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<tr>
<td>106-111</td>
<td>Shorthand I (Theory)</td>
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<td>106-133</td>
<td>Document Processing 2 or 3</td>
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<td>801-151</td>
<td>Communication Skills I</td>
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<tr>
<td>809-125</td>
<td>Government: Process and Practices</td>
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16-17
### Second Semester

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<td>102-102</td>
<td>Business Mathematics I</td>
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<td>Shorthand 2 (Speed Development)</td>
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<td>106-133</td>
<td>Document Processing 3 or 4</td>
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<td>801-152</td>
<td>Communication Skills II</td>
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### SECOND YEAR

#### First Semester

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<td>103-131</td>
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<td>103-140</td>
<td>Desktop Publishing (9 weeks)</td>
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<td>106-115</td>
<td>Shorthand 3 (Transcription)</td>
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<td>106-138</td>
<td>Document Processing 4</td>
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<td>106-150</td>
<td>Administrative Office Procedures</td>
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<td>Information Processing Concepts</td>
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<tr>
<td>103-144</td>
<td>dBase (9 weeks)</td>
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<tr>
<td>106-116</td>
<td>Shorthand 4 (Administrative Dictation)</td>
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<tr>
<td>106-195</td>
<td>Career Development/Internship</td>
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<tr>
<td>809-195</td>
<td>Economics</td>
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<tr>
<td>809-199</td>
<td>Psychology of Human Relations</td>
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#### RECOMMENDED ELECTIVES

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<tr>
<td>102-143</td>
<td>Management Techniques</td>
<td>3</td>
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<tr>
<td>106-132</td>
<td>Typing Workshop-Skillbuilding</td>
<td>2</td>
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<tr>
<td>196-135</td>
<td>Time Management</td>
<td>1</td>
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<tr>
<td>196-148</td>
<td>Stress Management</td>
<td>1</td>
</tr>
<tr>
<td>196-151</td>
<td>Training Techniques</td>
<td>1</td>
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1. Students entering without any typing may use 106-131 Keyboarding I as an elective.
BUSINESS

Business Mid-Management
Associate in Applied Science Degree

To be accepted into company training programs in middle management, or for running and operating a business, the Business Mid-Management program provides a well-rounded study in the fundamentals of business organization, finance, management and related studies. This program provides the student with training necessary for employment and advancement on the job in middle management and allied occupations. Other career paths could be in such specialty areas as sales, accounting or office operations.

FIRST YEAR
First Semester
101-111 Accounting I-Principles 4
102-105 Math of Finance 3
106-163 Micro Keyboarding 2
801-151 Communication Skills I 3
809-195 Economics 3
809-199 Psychology of Human Relations 3

Credits 18

SECOND YEAR
First Semester
101-118 Management Accounting 4
102-126 Principles of Finance 3
194-109 Principles of Insurance 3
104-179 Marketing Techniques 3
Elective 3

Credits 16

Second Semester
102-104 Business Statistics 3
102-138 Accounting and Payroll Systems 3
102-143 Management Techniques 3
106-172 Applied Business Training 3
Elective 3

Credits 15

RECOMMENDED ELECTIVES
101-123 Tax I 4
101-125 Cost Accounting I 3
101-127 Tax II 3
102-113 Business Communications 1
102-136 Personnel Management 3
102-137 Computerized Accounting Applications 3
102-146 Parliamentary Procedure 2
102-161 Business Law II 3
106-136 Typewriting II 2

Court and Conference Reporting
Associate in Applied Science Degree

Court and conference reporters record the testimony, opinions, charges, sentences or other proceedings in a court of law and the proceedings of business and professional conventions by computerized machine shorthand. This work affords interesting mental activity and requires concentration, patience, poise and good health. Promptness and attention to detail are essential traits. It is a profession in which many men and women have found personal satisfaction, stimulation of mind and monetary rewards. The program is approved by the National Shorthand Reporters Association. Admission requirements: typing—50 wpm; English composition—grade of “C.”

FIRST YEAR
First Semester
102-160 Business Law I 3
106-133 Document Processing 3 OR
106-137 Document Processing 3
106-143 Court Reporting I 5
801-151 Communication Skills I 3
809-199 Psychology of Human Relations 3

Credits 17

Second Semester
106-144 Court Reporting 2 6
106-152 Court Reporting Transcription 2
106-158 Court Reporting Terminology 1
801-152 Communication Skills II 3
809-197 Contemporary American Society 3

Summer Semester
106-154 Court Reporting Workshop 3

SECOND YEAR
First Semester
106-142 Court and Freelance Reporting 3
106-145 Court Reporting 3
106-147 Legal/Technical Reporting I 3
106-153 CAT Systems 3
509-180 Medical Terminology I 2
Elective 2

Credits 17

Second Semester
106-130 Court Reporting Procedures 2
106-146 Court Reporting 4
106-148 Legal/Technical Reporting 2
106-151 Court Reporting Internship 2
809-195 Economics 3
Elective 1

Credits 18

RECOMMENDED ELECTIVES
106-132 Typing Workshop—Skillbuilding 2
106-381 Information Processing Operations 3
509-181 Medical Terminology II 2
An 8-week summer workshop (3 cr.), at the end of the second semester, is a required part of this program. Word processing technology with hands-on experience is covered.

1 Graduation from the program requires a net typewriting speed of 60 wpm for five minutes.
2 Includes an overview in reporter-related technology including computer-aided transcription, word processing and video applications.
3 Graduation from the program requires the following machine shorthand writing speeds: 2-voice-225 wpm; 4-voice and jury charge-200 wpm; literary-160 wpm (all 5-minute takes with 95 percent accuracy).
4 Internship placement requires a machine shorthand speed attainment of 200 wpm. The internship will consist of a minimum of 40 hours of actual writing time under the supervision of a qualified reporter.

Data Entry Operations

One-Year Diploma

As society increases its dependence on computer-generated information, the demand for skilled data entry operators continues to rise. Business firms seek graduates who are able to key data accurately and quickly and who are able to adapt to a variety of types of equipment and software. In addition to providing instruction in general clerical areas, specialized training on currently used hardware and software is the objective of this program. Students entering the program should have a good background in arithmetic and keyboarding (typing) and possess good finger dexterity, vision and coordination. Admission requirement: one year of typewriting.

First Semester

<table>
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<tbody>
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<tr>
<td>102-305 Applied Business Math</td>
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<td>103-305 Data Entry I</td>
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<tr>
<td>103-330 Microcomputers I</td>
<td>3</td>
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<tr>
<td>106-303 Filing Procedures</td>
<td>1</td>
</tr>
<tr>
<td>106-333 Keyboarding Applications II OR</td>
<td>3</td>
</tr>
<tr>
<td>106-335 Keyboarding Applications III</td>
<td>3</td>
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<tr>
<td>801-351 Communications I</td>
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Second Semester

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<td>103-357 Microcomputers II</td>
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<td>106-306 Office Procedures</td>
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Second Semester

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<td>102-143 Management Techniques</td>
<td>3</td>
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<tr>
<td>107-110 Computer Operations II</td>
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<td>107-138 Computer Operations Internship I</td>
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Second Semester

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<td>107-139 Computer Operations Internship II</td>
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<tr>
<td>809-195 Economics</td>
<td>3</td>
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<td>809-197 Contemporary American Society</td>
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Recommended Electives

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<td>106-163 Micro Keyboarding</td>
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<td>107-136 Programming IX-SAS</td>
<td>3</td>
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<tr>
<td>107-140 Microcomputer Software</td>
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*Note: 107-111 Programming I (Basic Assembler Language) requires approximately 15 hours of extra time each week in addition to the regular hours the class meets.
**Data Processing - Computer Programming**

**Associate in Applied Science Degree**

A data processing career provides an exciting challenge to those who are technically prepared to handle the increasingly complex area of computers application development. Students must possess a high level of abstract and logical thinking abilities. The Data Processing program prepares students for job entry in business and industry as an entry-level programmer. It also applies toward the requirements for the Certificate in Data Processing. Additional education and job experience lead to work in systems analysis.

Admission requirement: algebra-grade of “C.”

### FIRST YEAR

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<td>101-111 Accounting I - Principles</td>
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<td>107-111 Programming I*</td>
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<td>107-113 Computer Concepts</td>
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### SECOND YEAR

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<tr>
<td>107-117 Systems Analysis and Design I</td>
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<td>107-123 Programming II</td>
<td>4</td>
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<td>801-152 Communication Skills II</td>
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<td>809-197 Contemporary American Society</td>
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**RECOMMENDED ELECTIVES**

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</tbody>
</table>

*Note: Programming I (Basic Assembler Language) requires approximately 15 hours of extra time each week in addition to the regular hours the class meets.*

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**Finance**

**Associate in Applied Science Degree**

The Finance program provides the educational background and training required for entry positions in banks, savings and loan associations, finance companies, credit unions, real estate, insurance, financial planning, government, or mercantile and manufacturing enterprises. Job experience and continuing education provide the qualifications necessary for advancement.

Finance relates to the management of, not necessarily the accounting for, monetary affairs. Public finance deals with governmental agencies, corporate finance deals with business enterprise, and personal finance deals with the monetary affairs of individuals.

The finance student is encouraged, while successfully completing the core curriculum, to select electives which focus on one of these three areas of finance: public, corporate or personal.

### FIRST YEAR

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<tr>
<td>101-111 Accounting I - Principles</td>
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<td>102-128 Financial Institutions</td>
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<td>103-134 Business Organization and Management</td>
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<td>102-160 Business Law I</td>
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**RECOMMENDED ELECTIVES**

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</tbody>
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**Notes:**

- Programming I (Basic Assembler Language) requires approximately 15 hours of extra time each week in addition to the regular hours the class meets.
Legal Transcriptionist

One-Year Diploma

The legal transcriptionist must have a working knowledge of legal terminology, legal documents and procedures necessary in instituting and prosecuting a lawsuit, in addition to the usual skills and knowledge required of all office workers who do word processing. Advancement possibilities include legal secretary, legal assistant and Certified Professional Legal Secretary (PLS). Students are prepared to work for attorneys, government offices and legal departments of industry. A supervised internship in a legal office is an important part of the training. Admission requirement: typewriting—45 wpm.

First Semester

<table>
<thead>
<tr>
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<th>Course Title</th>
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<tbody>
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<td>105-319</td>
<td>Legal Transcription I</td>
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<td>106-328</td>
<td>Legal Office Procedures I</td>
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<td>106-349</td>
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Second Semester

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<td>102-361</td>
<td>Business Law II</td>
<td>(2)</td>
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<tr>
<td>103-130</td>
<td>Microcomputer Applications OR</td>
<td>3</td>
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<tr>
<td>103-330</td>
<td>Microcomputers I</td>
<td>(2)</td>
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</table>

Medical Office Mid-Management

Associate in Applied Science Degree

Because there is a severe shortage of trained personnel to fill positions in the rapidly-growing health services sector, medical office specialists will find many rewarding career opportunities open to them. Students who enter this program should be able to concentrate on details, to understand and apply instructions and principles of a complex nature, and to perform effectively under all circumstances, as well as being friendly and understanding in dealings with patients and co-workers.

Graduates of this program will gain management skills, an understanding of patient care needs and good business practices, and an ability to coordinate relationships with professional health personnel and community health and social agencies. These are learned in formal education programs combined with on-the-job experiences.

FIRST YEAR

<table>
<thead>
<tr>
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<th>Course Title</th>
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<tbody>
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<td>Accounting I-Principles</td>
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<td>Math of Finance</td>
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<td>809-199</td>
<td>Psychology of Human Relations</td>
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<td>Management Techniques</td>
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<tr>
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<td>Micro Keyboarding</td>
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SECOND YEAR

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<td>Introduction to Health Care Systems</td>
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<td>102-194</td>
<td>Contemporary Issues in Health Care</td>
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<td>509-180</td>
<td>Medical Terminology I</td>
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Second Semester

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<td>102-123</td>
<td>Environmental Health and Safety</td>
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RECOMMENDED ELECTIVES

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<td>102-110</td>
<td>Business Correspondence Report Writing</td>
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<td>111-109</td>
<td>Principles of Insurance</td>
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</table>
**Medical Secretary**

**Associate in Applied Science Degree**

The Medical Secretary program prepares secretaries for employment in doctors' offices, clinics, hospitals, or wherever a knowledge of medical terminology and professional procedures and ethics is required. It also provides excellent preparation for secretarial positions in any business. The status of Certified Medical Assistant--Administrative can be acquired upon completion of the required job experience and written examinations. Admission requirement: English composition—grade of “C.”

**FIRST YEAR**

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<td>106-113</td>
<td>Shorthand II* or</td>
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<td>106-170</td>
<td>Medical Document Processing I</td>
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<td>510-103</td>
<td>Body Structure</td>
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<td>Contemporary American Society</td>
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<td>Second Semester</td>
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<td>Applied Accounting I</td>
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<td>Shorthand II OR</td>
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**SECOND YEAR**

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<td>106-180</td>
<td>Applied Word Processing OR</td>
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<td>106-381</td>
<td>Information Processing Operations</td>
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<td>509-110</td>
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<td>Psychology of Human Relations</td>
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<td>Second Semester</td>
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<td>Medical Shorthand II</td>
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<td>Medical Document Processing III</td>
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**RECOMMENDED ELECTIVES**

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<td>Microcomputer Applications</td>
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<td>103-131</td>
<td>Lotus (9 weeks)</td>
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<tr>
<td>103-135</td>
<td>WordPerfect (9 weeks)</td>
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<td>103-144</td>
<td>dBase (9 weeks)</td>
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<tr>
<td>106-103</td>
<td>Filing Procedures</td>
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<tr>
<td>106-132</td>
<td>Typing Workshop—Skillbuilding</td>
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**Medical Transcriptionist**

**One-Year Diploma**

Successful completion of this program qualifies the student for entry-level employment as a medical transcriptionist wherever machine transcription of medical material is required—hospitals, clinics, doctors' offices, nursing homes, specialty laboratories and insurance companies. A capable medical transcriptionist demonstrates proficient skills in keyboard speed and accuracy, grammar and proofreading, as well as a knowledge of medical terminology, anatomy, pathology and pharmacology. Admission requirement: typing—45 wpm.

<table>
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<td>106-170</td>
<td>Medical Document Processing I</td>
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<td>106-367</td>
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<td>106-365</td>
<td>Medical Office Procedures</td>
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<td>106-368</td>
<td>Medical Transcription II</td>
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<td>106-381</td>
<td>Information Processing Operations</td>
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<td>106-369</td>
<td>Medical Transcriptionist Internship</td>
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<td>801-352</td>
<td>Communications II</td>
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</table>

**Office Assistant**

**One-Year Diploma**

Completion of the Office Assistant program gives an understanding of general business activities required of all office employees for occupational competence. Students gain a mastery of the skills essential for initial employment and a thorough knowledge of the subject matter.

<table>
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<th>Semester</th>
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<td>102-305</td>
<td>Applied Business Math</td>
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<td>103-330</td>
<td>Microcomputers I</td>
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<td>103-355</td>
<td>Machine Calculation</td>
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<td>Keyboarding I (Typing I)</td>
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1 Not a beginning typing course; keyboarding knowledge required.
2 Includes a three week affiliation in a medical facility.
Second Semester

106-306 Office Procedures 2
106-333 Keyboarding Applications 2 (Typing II) 3
106-334 Machine Transcription 2
106-337 Keyboard Skillbuilding 2
106-376 Job Survey 2
106-381 Information Processing Operations 3
801-352 Communications II 2

Program requirement: keyboarding speed of 50 wpm.

A prerequisite for this course is completion of or concurrent enrollment in Keyboarding I.

A total of 6 credits of Keyboarding I, II, III or IV is required.

A prerequisite for this course is completion of or concurrent enrollment in Keyboarding Applications II.

Secretary

One-Year Diploma

This program is designed to provide a balanced general education along with specialized shorthand and transcription skills; language skills are emphasized. No previous training in shorthand is required.

First Semester

Credits

101-330 Related Accounting 2
102-305 Applied Business Mathematics 2
103-330 Microcomputers I* 3
103-355 Machine Calculation 1
106-305 Shorthand I 3
106-331 Keyboarding I (Typing I) OR 3
106-333 Keyboarding Applications 2 OR 3
801-351 Communications I 2
16

Second Semester

106-303 Filing Procedures 1
106-306 Office Procedures 2
106-313 Shorthand II 3
106-333 Keyboarding Applications 2 OR 3
106-335 Keyboarding Applications 3 OR 3
106-376 Job Survey 2
106-381 Information Processing Operations 3
801-352 Communications II 2
16

* A prerequisite for 103-330 Microcomputers I is completion of or concurrent enrollment in 106-331 Keyboarding I.

Program requirement: exit typing speed of 50 words per minute and exit shorthand speed of 60 words per minute.
The Culinary Trades Department trains individuals in all aspects of food preparation and service, from short-order cooking to mid-management careers in the hospitality industry.

**Food Preparation Assistant**

**One-Year Diploma**

The Food Preparation Assistant program is designed to help students develop skills to pursue a career in food preparation within restaurants, hotels and institutions. Food preparation assistants are employed in the areas of preparation, short order, broiler, salad, pantry or baker’s helper. Successful students can assimilate information and instructions clearly, can learn and apply the principles and techniques involved in cooking and baking, have a keen interest in food preparation and cooking, are willing to assume responsibility for quality of work, and are willing to work under the pressure of mealtime schedules.

<table>
<thead>
<tr>
<th>Number</th>
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<td>Introduction to Food Service</td>
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<tr>
<td>518-313</td>
<td>Introductory Foods</td>
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<tr>
<td>518-316</td>
<td>Food Preparation Laboratory 1*</td>
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<tr>
<td>518-318</td>
<td>Food Service Sanitation</td>
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<td>804-378</td>
<td>Mathematics I</td>
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**Second Semester**

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<td>Menu Planning and Nutrition</td>
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<td>518-301</td>
<td>Food Preparation Theory</td>
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<td>518-317</td>
<td>Food Preparation Laboratory II*</td>
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<td>518-370</td>
<td>Job Relations</td>
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<td>518-382</td>
<td>Decorative Foods</td>
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<td>809-352</td>
<td>Human Relations</td>
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</table>

*Covered courses include entrees, salads, catering, short order, bakery, storeroom, cafeteria service.

**Food Service Aide**

**Less Than One-Year Diploma**

The Food Service Aide program is designed to provide job training skills for unemployed adults with special needs. The curriculum includes basic quantity food preparation, bakery preparation, short order cookery, food serving techniques, principles of safety and sanitation, and employment orientation. The program emphasizes occupational competency skills as well as job-seeking and job-keeping skills—helping people help themselves. Persons completing the program may be qualified for entry-level positions such as salad/sandwich preparation person, short-order cook, kitchen helper, bakery helper, and dishroom/bus personnel.

<table>
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<th>Course Name</th>
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<td>518-310</td>
<td>Basic Food Production I*</td>
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<td>518-311</td>
<td>Basic Food Production II*</td>
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<tr>
<td>518-312</td>
<td>Short Order Cookery</td>
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<td>518-318</td>
<td>Safety and Sanitation</td>
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<tr>
<td>518-334</td>
<td>Bakery Production I*</td>
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<tr>
<td>518-335</td>
<td>Bakery Production II*</td>
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<tr>
<td>518-370</td>
<td>Employment Orientation 2</td>
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1 First nine weeks only
2 Second nine weeks only
Restaurant and Hotel Cookery

Associate in Applied Science Degree

The Restaurant and Hotel Cookery program is designed to fit the needs of personnel who desire to pursue careers within the hospitality field in mid-management positions in the industrial food preparation and service areas. Positions include assistant manager duties, coordinating food preparation with food service, supervising personnel, and in some cases, supervising a complete food unit.

Successful students are able to supervise and direct others in job performance, can communicate information and instructions clearly, and can learn and apply principles and techniques easily. Students should have a keen interest in food preparation and cooking and enjoy experimenting to develop new food combinations and recipes. They should be interested in work which involves the attainment of high standards and be willing to accept responsibility for quality of work.

**FIRST YEAR**

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<thead>
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<td>511-105 Sanitation</td>
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<td>511-106 Food Science Theory and Laboratory</td>
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<td>511-108 Bakery I</td>
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<td>511-109 Food Preparation Laboratory</td>
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<td>511-117 Meat Science</td>
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<td>801-151 Communication Skills</td>
<td>3</td>
</tr>
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</table>

**SECOND YEAR**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>101-114 Applied Accounting</td>
<td>3</td>
</tr>
<tr>
<td>511-112 Food Preparation Laboratory II</td>
<td>6</td>
</tr>
<tr>
<td>511-152 Menu Planning and Nutrition</td>
<td>2</td>
</tr>
<tr>
<td>801-152 Communication Skills II</td>
<td>3</td>
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<tr>
<td>809-199 Psychology of Human Relations</td>
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**SECOND YEAR**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>511-104 Introduction to Gourmet Food Preparation</td>
<td>4</td>
</tr>
<tr>
<td>511-118 Food Service Institutions</td>
<td>3</td>
</tr>
<tr>
<td>511-158 Food Costs and Percentage Analysis</td>
<td>3</td>
</tr>
<tr>
<td>511-169 Food Management</td>
<td>2</td>
</tr>
<tr>
<td>809-195 Economics</td>
<td>3</td>
</tr>
<tr>
<td>Elective</td>
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<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>102-134 Business Organization</td>
<td>3</td>
</tr>
<tr>
<td>109-128 Elective</td>
<td>3</td>
</tr>
<tr>
<td>511-185 Food Service Layout and Equipment</td>
<td>2</td>
</tr>
<tr>
<td>511-133 Ice Sculpturing and Decorative Foods</td>
<td>2</td>
</tr>
<tr>
<td>511-130 Gourmet Foods</td>
<td>4</td>
</tr>
<tr>
<td>511-193 Job Orientation</td>
<td>1</td>
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<td>809-197 Contemporary American Society</td>
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**RECOMMENDED ELECTIVES**

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>103-130 Applied Micro Computers</td>
<td>1</td>
</tr>
<tr>
<td>109-136 Restaurant Law</td>
<td>3</td>
</tr>
<tr>
<td>511-140 Culinary Language</td>
<td>1</td>
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</table>
General Studies Division
The General Studies Division offers all the liberal studies courses in the college, providing a broad educational experience for students that complements and enhances their occupational coursework.

The division offers Associate of Arts and Associate of Science liberal studies degree programs, as well as an applied arts degree in Human Services.

College transfer courses are provided for students who plan to continue their education at four-year colleges or for those who simply wish to broaden their education.

Vocational-Technical Developmental courses help students strengthen academic skills to better ensure success in occupational studies.

### Liberal Studies Degrees

#### Associate in Science

**Associate in Arts**

These programs are designed for students who wish to gain a broad, general background and who either 1) intend to continue on to a four-year baccalaureate degree or 2) for economic, social or academic reasons, wish to combine liberal studies with electives from a vocational or technical program.

For students who wish to pursue the first goal, the program covers a span of instruction that generally satisfies the first two years' requirements for various majors in four-year colleges and universities. If the student has no major field in mind, this program introduces him/her to several areas of study and serves as a broad preparation for transfer.

Students focusing on the second objective are introduced to various ways of examining and understanding the world around them and themselves in relation to that world. At the same time, they may prepare for occupations by taking commercial, technical, homemaking or industrial electives.

---

### Associate in Science Degree

**64 Credits**

**Minimum Requirements**

<table>
<thead>
<tr>
<th>English and Speech</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Three credits must be in English composition.</td>
<td>9</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>History and Social Sciences</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Includes at least one course each from two areas of history, sociology, psychology, economics and government.</td>
<td>6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mathematics and Natural Science</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Includes at least one laboratory course each from biological and physical sciences. Includes at least college algebra.</td>
<td>20</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Humanities</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Includes art, music, film, drama, philosophy, foreign language and literature or composition beyond the English requirement.</td>
<td>6</td>
</tr>
</tbody>
</table>

**Electives**

Electives include any college credit transfer credits beyond minimum requirements and a maximum of 15 credits in associate degree courses from approved associate of applied science degree programs. No more than two credits of health and physical education may be counted in the 64 credit total.

---

### Associate in Arts Degree

**64 Credits**

**Minimum Requirements**

<table>
<thead>
<tr>
<th>English and Speech</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Three credits must be in English composition.</td>
<td>9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>History and Social Sciences</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Includes at least one course each from three areas of history, sociology, psychology, economics and government.</td>
<td>15</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Mathematics and Natural Science</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Includes one laboratory course in science. Includes intermediate algebra if only algebra and geometry were taken in high school.</td>
<td>7</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Humanities</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>Three credits must be in literature. The remainder in art, music, film, drama, philosophy, foreign language and literature or composition beyond the required English.</td>
<td>9</td>
</tr>
</tbody>
</table>

**Electives**

Electives include any college credit transfer credits beyond minimum requirements and a maximum of 15 credits in associate degree courses from approved associate of applied science degree programs. No more than two credits of health and physical education may be counted in the 64 credit total.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>801-201</td>
<td>English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>801-202</td>
<td>English Composition II</td>
<td>3</td>
</tr>
<tr>
<td>801-203</td>
<td>Advanced Composition</td>
<td>3</td>
</tr>
<tr>
<td>801-204</td>
<td>Introduction to Modern Literature I</td>
<td>3</td>
</tr>
<tr>
<td>801-215</td>
<td>Survey of British Literature I</td>
<td>3</td>
</tr>
<tr>
<td>801-216</td>
<td>Special Topics in British Literature</td>
<td>3</td>
</tr>
<tr>
<td>801-217</td>
<td>Survey of American Literature I</td>
<td>3</td>
</tr>
<tr>
<td>801-218</td>
<td>Special Topics in American Literature</td>
<td>3</td>
</tr>
<tr>
<td>801-219</td>
<td>Survey of Western World Literature I</td>
<td>3</td>
</tr>
<tr>
<td>801-220</td>
<td>Survey of Western World Literature II</td>
<td>3</td>
</tr>
<tr>
<td>801-228</td>
<td>Introduction to Modern Literature II</td>
<td>3</td>
</tr>
<tr>
<td>801-229</td>
<td>Contemporary Literature</td>
<td>3</td>
</tr>
<tr>
<td>801-240</td>
<td>Creative Writing</td>
<td>3</td>
</tr>
<tr>
<td>801-245</td>
<td>Newswriting and Reporting</td>
<td>4</td>
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<tr>
<td>801-246</td>
<td>Feature Writing</td>
<td>4</td>
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<tr>
<td>801-248</td>
<td>Visual Communication in Publications</td>
<td>2</td>
</tr>
<tr>
<td>801-250</td>
<td>Women in Literature</td>
<td>3</td>
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<tr>
<td>802-211</td>
<td>Spanish I</td>
<td>4</td>
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<tr>
<td>802-212</td>
<td>Spanish II</td>
<td>4</td>
</tr>
<tr>
<td>802-213</td>
<td>Spanish III</td>
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<tr>
<td>802-214</td>
<td>Spanish IV</td>
<td>4</td>
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<tr>
<td>802-221</td>
<td>French I</td>
<td>4</td>
</tr>
<tr>
<td>802-222</td>
<td>French II</td>
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<td>802-223</td>
<td>French III</td>
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<tr>
<td>802-224</td>
<td>French IV</td>
<td>4</td>
</tr>
<tr>
<td>803-204</td>
<td>Making of Modern Europe</td>
<td>3</td>
</tr>
<tr>
<td>803-205</td>
<td>Europe and the Modern World</td>
<td>3</td>
</tr>
<tr>
<td>803-211</td>
<td>American History 1607-1856</td>
<td>3</td>
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<tr>
<td>803-212</td>
<td>American History 1865 to the Present</td>
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<tr>
<td>803-213</td>
<td>History of the American West</td>
<td>3</td>
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<tr>
<td>803-214</td>
<td>Native American History</td>
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<tr>
<td>803-215</td>
<td>American History Since 1945</td>
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<tr>
<td>803-220</td>
<td>History of Western Civilization I</td>
<td>3</td>
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<tr>
<td>803-221</td>
<td>History of Western Civilization II</td>
<td>3</td>
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<tr>
<td>803-223</td>
<td>History of the Third World: Asia</td>
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<tr>
<td>803-224</td>
<td>History of the Third World: Africa</td>
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<tr>
<td>803-225</td>
<td>The World in the Twentieth Century</td>
<td>3</td>
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<tr>
<td>803-230</td>
<td>Women in History</td>
<td>3</td>
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<tr>
<td>803-240</td>
<td>African American History</td>
<td>3</td>
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<tr>
<td>804-201</td>
<td>Intermediate Algebra</td>
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<tr>
<td>804-206</td>
<td>Introduction to Computer Use</td>
<td>4</td>
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<tr>
<td>804-208</td>
<td>Computer Science (Pascal)</td>
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<tr>
<td>804-212</td>
<td>College Algebra</td>
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<tr>
<td>804-213</td>
<td>Trigonometry</td>
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<tr>
<td>804-229</td>
<td>Mathematical Analysis</td>
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<tr>
<td>804-231</td>
<td>Calculus and Analytic Geometry I</td>
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<tr>
<td>804-232</td>
<td>Calculus and Analytic Geometry II</td>
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<td>804-240</td>
<td>Basic Statistics</td>
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<tr>
<td>805-201</td>
<td>New College Singers</td>
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<tr>
<td>805-205</td>
<td>Vocal Ensemble</td>
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<tr>
<td>805-210</td>
<td>Jazz Ensemble</td>
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<tr>
<td>805-215</td>
<td>Contemporary Music History</td>
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<tr>
<td>805-227</td>
<td>Music Appreciation</td>
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<tr>
<td>805-243</td>
<td>Instrumental Ensembles</td>
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<tr>
<td>805-260</td>
<td>Basic Music Theory</td>
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<tr>
<td>805-261</td>
<td>Music Theory I</td>
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<td>805-262</td>
<td>Music Theory II</td>
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<td>805-265</td>
<td>General History of Music</td>
<td>3</td>
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<tr>
<td>805-267</td>
<td>Ear Training and Keyboard Theory</td>
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<tr>
<td>805-270</td>
<td>The Music Listener</td>
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<tr>
<td>805-275</td>
<td>Musicianship for Pop/Rock Instrumentalists</td>
<td>2</td>
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<tr>
<td>805-276</td>
<td>Music Television</td>
<td>3</td>
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<tr>
<td>805-277</td>
<td>Techniques of Sound Recording</td>
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### General Studies

<table>
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<td>Animal Biology</td>
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<td>806-205</td>
<td>Zoology Concepts</td>
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<tr>
<td>806-206</td>
<td>General Anatomy and Physiology</td>
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</tr>
<tr>
<td>806-207</td>
<td>Anatomy and Physiology I</td>
<td>4</td>
</tr>
<tr>
<td>806-208</td>
<td>Anatomy and Physiology II</td>
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<tr>
<td>806-209</td>
<td>Introductory College Chemistry I</td>
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<td>806-210</td>
<td>General and Biological Chemistry</td>
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<td>806-212</td>
<td>Introductory College Chemistry II</td>
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<td>806-213</td>
<td>Organic Chemistry I</td>
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<tr>
<td>806-214</td>
<td>Organic Chemistry II</td>
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<tr>
<td>806-215</td>
<td>Botany</td>
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<td>806-217</td>
<td>Botanical Concepts</td>
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<td>Human Anatomy</td>
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<td>Biology of Human Aging</td>
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<td>806-241</td>
<td>Earth Science</td>
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<tr>
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<td>Life in the Past</td>
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<td>806-243</td>
<td>Survey of Astronomy</td>
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<td>Survey of Biochemistry</td>
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<td>806-273</td>
<td>Microbiology</td>
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<td>General Microbiology</td>
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<tr>
<td>806-270</td>
<td>Environmental Issues</td>
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<tr>
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</tr>
<tr>
<td>807-209</td>
<td>Baseball/Conditioning</td>
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<tr>
<td>807-210</td>
<td>Conditioning/Weight Training</td>
<td>1</td>
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<tr>
<td>807-211</td>
<td>Conditioning/Basketball I</td>
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<td>807-212</td>
<td>Advanced Weight Training</td>
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<tr>
<td>807-221</td>
<td>Conditioning/Basketball I</td>
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</tr>
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<td>807-223</td>
<td>Volleyball I</td>
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<td>Volleyball II</td>
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<tr>
<td>807-225</td>
<td>Softball/Conditioning</td>
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</tr>
<tr>
<td>807-230</td>
<td>Swim I</td>
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<tr>
<td>807-231</td>
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<td>807-232</td>
<td>Water Aerobics</td>
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<td>807-233</td>
<td>Lifeguard Training</td>
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<td>807-234</td>
<td>Scuba Diving</td>
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<td>807-235</td>
<td>Racquetball I</td>
<td>1</td>
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<td>807-236</td>
<td>Tennis I</td>
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<tr>
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<td>Tennis II</td>
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<td>807-238</td>
<td>Racquetball I</td>
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<tr>
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<tr>
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<td>Bowling I</td>
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<td>Dance I</td>
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<tr>
<td>807-244</td>
<td>Dance II</td>
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<td>807-245</td>
<td>Social Dance</td>
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<tr>
<td>807-246</td>
<td>Contemporary Dance</td>
<td>1</td>
</tr>
<tr>
<td>807-250</td>
<td>Badminton</td>
<td>1</td>
</tr>
<tr>
<td>807-253</td>
<td>Archery</td>
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<tr>
<td>807-265</td>
<td>Soccer</td>
<td>1</td>
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<tr>
<td>807-266</td>
<td>Wellness—Today</td>
<td>2</td>
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<tr>
<td>807-270</td>
<td>Bicycle Conditioning/Maintenance</td>
<td>1</td>
</tr>
<tr>
<td>807-279</td>
<td>Cross County Skiing</td>
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<tr>
<td>807-283</td>
<td>Aerobic Dance</td>
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</tr>
<tr>
<td>807-285</td>
<td>Fall Sports Officials</td>
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</tr>
<tr>
<td>807-286</td>
<td>Spring Sports Officials</td>
<td>1</td>
</tr>
<tr>
<td>807-289</td>
<td>Aerobic Dance/Weight Training</td>
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</tr>
<tr>
<td>807-290</td>
<td>Special Physical Education</td>
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### Social Science

<table>
<thead>
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<tbody>
<tr>
<td>809-202</td>
<td>Social Disorganization</td>
<td>3</td>
</tr>
<tr>
<td>809-203</td>
<td>Introduction to Sociology</td>
<td>3</td>
</tr>
<tr>
<td>809-204</td>
<td>Marriage and the Family</td>
<td>3</td>
</tr>
<tr>
<td>809-205</td>
<td>Contemporary Society</td>
<td>3</td>
</tr>
<tr>
<td>809-206</td>
<td>Women in Society: Social Institutions and Social Change</td>
<td>3</td>
</tr>
<tr>
<td>809-207</td>
<td>Criminology</td>
<td>3</td>
</tr>
<tr>
<td>809-208</td>
<td>Contemporary Afro-American Society</td>
<td>3</td>
</tr>
<tr>
<td>809-209</td>
<td>Women's Work/Women's Lives</td>
<td>3</td>
</tr>
<tr>
<td>809-210</td>
<td>Men: Social and Psychological Perspectives</td>
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<td>809-211</td>
<td>Macro-Economics</td>
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<td>809-212</td>
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<td>809-213</td>
<td>Comparative Economic Systems</td>
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<td>Introduction to Psychology</td>
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<tr>
<td>809-233</td>
<td>Developmental Psychology</td>
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<tr>
<td>809-235</td>
<td>Psychology of Personal Adjustment</td>
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<td>Applied Psychology</td>
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<td>809-237</td>
<td>Abnormal Psychology</td>
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<td>809-240</td>
<td>Introduction to Latin America</td>
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<tr>
<td>809-250</td>
<td>Women in the Arts</td>
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<tr>
<td>809-260</td>
<td>Introduction to Philosophy</td>
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<tr>
<td>809-261</td>
<td>Logic and Critical Thinking</td>
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<tr>
<td>809-262</td>
<td>Ethics: Theory and Application</td>
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<td>809-263</td>
<td>East/West World Views</td>
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<td>809-264</td>
<td>Reassons in Communication</td>
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<td>809-265</td>
<td>Philosophy and the Arts</td>
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<td>809-269</td>
<td>Energy and Society</td>
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<td>809-271</td>
<td>Families in Transition</td>
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<td>809-272</td>
<td>The Nation's Health</td>
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<td>809-280</td>
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### Speech

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<tr>
<td>810-201</td>
<td>Fundamentals of Speech</td>
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<td>810-211</td>
<td>Fundamentals of Oral Interpretation</td>
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</tr>
<tr>
<td>810-230</td>
<td>Introduction to Drama</td>
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<td>810-231</td>
<td>Intermediate Drama</td>
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<tr>
<td>810-235</td>
<td>Technical Theater I</td>
<td>3</td>
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<tr>
<td>810-236</td>
<td>Technical Theater II</td>
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<tr>
<td>810-242</td>
<td>Public Speaking</td>
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<td>Introduction to Film</td>
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### Art

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<tr>
<td>815-200</td>
<td>Introduction to Art History</td>
<td>3</td>
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<tr>
<td>815-201</td>
<td>Design and Color I</td>
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<tr>
<td>815-202</td>
<td>Design and Color II</td>
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<tr>
<td>815-205</td>
<td>Drawing Fundamentals</td>
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<tr>
<td>815-210</td>
<td>Art History: The Modern Era</td>
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<tr>
<td>815-219</td>
<td>Life Drawing</td>
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<tr>
<td>815-234</td>
<td>Photography</td>
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<td>815-241</td>
<td>Painting I</td>
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<td>815-242</td>
<td>Painting II</td>
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<tr>
<td>815-253</td>
<td>Jewelry I</td>
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<td>815-254</td>
<td>Jewelry II</td>
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<td>815-255</td>
<td>Printmaking</td>
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<td>815-290</td>
<td>Ceramics I</td>
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<td>815-291</td>
<td>Ceramics II</td>
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</table>
Human Service Associate

Associate in Applied Science Degree

The Human Service Associate program trains people to provide information, support, care and advocacy in a human service agency. Students learn to work with people of diverse racial, ethnic and cultural backgrounds. They acquire the skills needed to work with individuals, groups and communities. Human services includes work with alcohol and drug abusers, people with developmental and other disabilities, older adults, adolescents, and people seeking services in community-based agencies.

General education courses included in the program teach students to better understand social problems. During the second year of the program, students have a fieldwork placement in a human service agency.

Some of the aptitudes and interest that are essential for human service students include emotional stability and maturity, an appreciation of cultural diversity, and interest in working with people.

Students choose nine credits of coursework and their field placement in one of four interest areas: gerontology, alcohol and other drug abuse (AODA), developmental and other disabilities, or generalist.

FIRST YEAR

First Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>520-105</td>
<td>Introduction to Human Services</td>
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<tr>
<td>520-106</td>
<td>Orientation to Human Services Populations</td>
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<tr>
<td>520-117</td>
<td>Interviewing</td>
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<tr>
<td>520-135</td>
<td>Issues in Alcohol and Other Drug Abuse</td>
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</tr>
<tr>
<td>901-151</td>
<td>Communication Skills 1 OR</td>
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<tr>
<td>901-201</td>
<td>English Composition 11</td>
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<td>809-199</td>
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Second Semester

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<tr>
<td>520-116</td>
<td>Group Work Skills</td>
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<td>520-120</td>
<td>Community Service Agencies</td>
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<tr>
<td>520-130</td>
<td>Social Change Skills</td>
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<tr>
<td>801-197</td>
<td>Technical Reporting</td>
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<tr>
<td>809-197</td>
<td>Contemporary American Society 2 OR</td>
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<tr>
<td>809-203</td>
<td>Introduction to Sociology 1</td>
<td>3</td>
</tr>
<tr>
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<td>Choose one according to specialty:</td>
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<tr>
<td>520-112</td>
<td>Introduction to Developmental Disabilities</td>
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<tr>
<td>520-156</td>
<td>Counseling Alcoholics and Other Drug Abusers</td>
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<tr>
<td>809-143</td>
<td>Family in America</td>
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<tr>
<td>520-160</td>
<td>Introduction to Gerontology</td>
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SECOND YEAR

First Semester

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<tr>
<td>520-139</td>
<td>Human Services Agency Experience I</td>
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<td>520-157</td>
<td>Human Service Counseling Skills</td>
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<tr>
<td>520-188</td>
<td>Human Service Experience Conference I</td>
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<tr>
<td>809-127</td>
<td>Human Development OR</td>
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<tr>
<td>809-233</td>
<td>Developmental Psychology 1</td>
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Second Semester

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<tbody>
<tr>
<td>520-140</td>
<td>Human Services Agency Experience II</td>
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<td>520-189</td>
<td>Human Services Experience Conference II</td>
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<tr>
<td>809-195</td>
<td>Economics OR</td>
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<tr>
<td>809-211</td>
<td>Macro-Economics 1</td>
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ELECTIVES

Developmental Disabilities

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<tr>
<td>520-110</td>
<td>Assessment and Program Planning for Persons with Disabilities</td>
<td>3</td>
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<tr>
<td>520-112</td>
<td>Introduction to Developmental Disabilities</td>
<td>3</td>
</tr>
<tr>
<td>520-115</td>
<td>Teaching Strategies for Persons with Disabilities</td>
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Alcohol and Other Drug Abuse (AODA)

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<tbody>
<tr>
<td>520-136</td>
<td>Counseling Alcoholics and Other Drug Abusers</td>
<td>3</td>
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<tr>
<td>520-151</td>
<td>AODA: Special Populations—Youth</td>
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<tr>
<td>520-152</td>
<td>AODA: Special Populations—Women</td>
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<tr>
<td>520-153</td>
<td>AODA: Special Populations—Older Adults</td>
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<tr>
<td>520-154</td>
<td>AODA: Special Populations—Ethnic Minorities</td>
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<tr>
<td>520-155</td>
<td>AODA: Special Populations—Other Minorities</td>
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<td>520-156</td>
<td>AODA: Special Populations—Disabled</td>
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Gerontology

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<tr>
<td>520-160</td>
<td>Introduction to Gerontology</td>
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<tr>
<td>520-162</td>
<td>Administration in Gerontology</td>
<td>3</td>
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<tr>
<td>520-164</td>
<td>Case Management and Program Development for the Elderly</td>
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Generalist

<table>
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<tr>
<td>514-110</td>
<td>Self Group Dynamics</td>
<td>2</td>
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<tr>
<td>514-135</td>
<td>Mental Health Practices</td>
<td>3</td>
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<tr>
<td>809-143</td>
<td>Family in America</td>
<td>3</td>
</tr>
<tr>
<td>809-202</td>
<td>Social Disorganization 1</td>
<td>3</td>
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<tr>
<td>809-205</td>
<td>Contemporary Society</td>
<td>3</td>
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<tr>
<td>809-206</td>
<td>Women in Society; Social Institutions and Social Changes 1</td>
<td>3</td>
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<tr>
<td>809-207</td>
<td>Criminology 1</td>
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</table>

1 College transfer equivalent courses.

2 Approved alternate: 809-125 Government Process and Practice
Courses in this program are designed to serve one of two functions for students:

1. To provide classes which remove deficiencies in past training, and therefore, enable students to be eligible for the vocational or technical programs of their choice;

2. To strengthen and refresh academic competencies to better ensure success in vocational or technical studies.

As many as four Vocational-Technical Developmental courses may be completed in one semester if the student enters at the beginning of either semester. Any course offered by the college may be considered "developmental" for a particular individual, but the college identifies many courses which are designed for general upgrading of basic skills so that students may be eligible for vocational or technical programs.
The Health Occupations Division offers eleven programs designed to prepare workers for various occupations in the health care system. All programs are fully accredited by the appropriate accrediting agency, and graduates are eligible to take any licensure or certification examinations required to be able to work in Wisconsin.

**Associate Degree Nursing**

**Associate in Applied Science Degree**

This program, accredited by the National League for Nursing, is designed to prepare practitioners who are able to function with judgment and technical competence in providing nursing care for patients of all age groups. Upon completion, the student is eligible to write the national licensure examination for certification as a registered nurse. Career opportunities include staff nurse positions in hospitals, nursing homes, clinics and in home health care. Emphasis throughout the program will be in the area of self-direction and the independent role. Aptitudes and interests that may be helpful include an interest in people and their welfare, an ability to work and communicate with others, an ability to be precise and exact, a willingness to follow prescribed procedures carefully with the realization that errors may have serious consequences, an ability to work under pressure, and an ability to react quickly in an emergency.

The following are required to be considered for admission into the Associate Degree Nursing program: 1) high school graduation or G.E.D.; 2) one year of high school chemistry and satisfactory score on the MATC chemistry test or chemistry equivalent; 3) one year of high school algebra with a grade of "C" or better or equivalent; and 4) satisfactory scores on the ACT test or other comparable substitute.

To succeed in the program, a student must obtain satisfactory achievement (a grade of C or higher) in major field subjects and support courses. A student must have a minimum of a C in theory and an S (satisfactory) in clinical practice to pass a course in the nursing area of instruction (510 courses). A student who fails a nursing course or withdraws while the course is in progress may re-enroll. However, a student may re-enroll in the program only one time. A student may repeat the same nursing course once.

Alternative educational opportunities are offered for licensed practical nurses who desire an associate in applied science degree. Advanced standing in nursing courses may be earned through written challenge examinations and a skills performance examination. This credit by examination process may be attempted only once for a given course. All nursing majors have the same admission, progression and general education requirements and achieve the same program objectives. Additional admission requirements for the licensed practical nurse are: 1) graduation from an approved practical nursing program; and 2) current licensure as an LPN. It is recognized that LPN students are diverse in their educational and work experiences. Therefore, LPN's are encouraged to seek information early in order to plan and prepare for their educational programs.

### FIRST YEAR

<table>
<thead>
<tr>
<th>Semester</th>
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<th>Course Title</th>
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<tbody>
<tr>
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<td>510-105</td>
<td>Nursing Fundamentals</td>
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<td>806-207</td>
<td>Anatomy and Physiology I*</td>
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<td>806-273</td>
<td>Microbiology*</td>
<td>3</td>
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<td></td>
<td>809-199</td>
<td>Psychology of Human Relations* OR</td>
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<td>809-231</td>
<td>Introduction to Psychology*</td>
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<tr>
<td>Second Semester</td>
<td>510-140</td>
<td>Nursing Process I (8-9 week course)</td>
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<td>510-141</td>
<td>Nursing Process II (8-9 week course)</td>
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<td>806-208</td>
<td>Anatomy and Physiology II*</td>
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<td>809-233</td>
<td>Developmental Psychology*</td>
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<td><strong>Summer Session</strong></td>
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<td>Communication Skills I* OR</td>
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<td>801-201</td>
<td>English Composition I*</td>
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<td>809-197</td>
<td>Contemporary American Society* OR</td>
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<td>Introduction to Sociology</td>
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<tr>
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<td>510-142</td>
<td>Nursing Process III (8-9 week course)</td>
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<td>510-143</td>
<td>Nursing Process IV (8-9 week course)</td>
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<td>801-152</td>
<td>Communication Skills II* OR</td>
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<td>810-201</td>
<td>Fundamentals of Speech, Elective</td>
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Second Semester

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<tbody>
<tr>
<td>510-130</td>
<td>Nursing Ethics and Trends</td>
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<td>510-144</td>
<td>Nursing Process V (8-9 week course)</td>
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<tr>
<td>510-154</td>
<td>Nursing Process VI (8-9 week course)</td>
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Elective: 2

Total: 14

*Students may meet some or all of the general studies requirements at MATC or at another college prior to entering the nursing sequence. Students are encouraged to take college transfer courses for educational advancement. To receive credit for anatomy/physiology and microbiology, these courses must have been taken within five years prior to admission to the nursing program.

Dental Assistant

One-Year Diploma

The Dental Assistant program is planned to give students an orientation to the duties of the dental assistant, from general dental office work to the technical phases of chairside assisting, laboratory techniques and radiography. Related instruction runs concurrently with practical instruction throughout the program. Students are provided clinical experience in area dental offices beginning in the first semester. Some of the aptitudes that may be helpful in this program include an ability to pay attention to details, to follow instructions and establish procedures, and to work under pressure and handle emergency situations. Admission requirements: 1) one unit of science—"C" or better; 2) assessment test.

First Semester

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>508-305</td>
<td>Dental Theory</td>
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<tr>
<td>508-308</td>
<td>Dental Materials I</td>
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<td>508-310</td>
<td>Dental Anatomy</td>
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<tr>
<td>508-321</td>
<td>Chairside Theory</td>
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<tr>
<td>508-322</td>
<td>Chairside Techniques Laboratory I</td>
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<tr>
<td>508-323</td>
<td>Dental Assisting Radiography</td>
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<td>508-335</td>
<td>Clinical Affiliation</td>
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<tr>
<td>801-151</td>
<td>Communication Skills I</td>
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Total: 16

Second Semester

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<td>508-307</td>
<td>Dental Theory II</td>
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</tr>
<tr>
<td>508-320</td>
<td>Dental Practice Administration</td>
<td>1</td>
</tr>
<tr>
<td>508-324</td>
<td>Chairside Theory II</td>
<td>1</td>
</tr>
<tr>
<td>508-325</td>
<td>Chairside Techniques Laboratory II</td>
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</tr>
<tr>
<td>508-336</td>
<td>Clinical Affiliations</td>
<td>4</td>
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<tr>
<td>801-152</td>
<td>Communication Skills II</td>
<td>3</td>
</tr>
<tr>
<td>809-356</td>
<td>Human Relations</td>
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</tbody>
</table>

Total: 15

REQUIREMENTS FOR GRADUATION:
A minimum of 2.0 (C) or above in all dental-related courses and a minimum of 1.0 (D) for general studies courses.

Dental Hygienist

Associate in Applied Science Degree

The dental hygienist is a member of the dental health team and is prepared to help individuals maintain oral health and prevent oral diseases. Under the supervision of a dentist, the hygienist inspects the mouth, removes stains and deposits from teeth, applies preventive agents, prepares and performs clinical and diagnostic tests, completes dental x-rays, and performs many other services related to mouth care. Dental hygienists counsel patients about preventive measures such as nutrition, oral hygiene and dental care. The specific educational objective of the Dental Hygienist program is to help students develop skill and competency to function effectively as dental hygienists under the supervision of a dentist in a dental office or clinic.

Upon completion of this program and prior to employment, dental hygienist graduates are required to successfully complete comprehensive written and clinical examinations given under the direction of the State Dentistry Examining Board, the American Dental Association's Joint Commission on National Dental Examinations, and the Central Regional Dental Testing Service.

Entrance requirements: graduation from an accredited secondary school with a college preparatory course or the recognized equivalent (G.E.D.) test. The applicant will be expected to have better-than-average grades. An ACT or comparable test is required. Students must have successfully completed the following at the high school level: three to four years of English; two to three years of mathematics (one year of algebra, one year of geometry); one year of chemistry; one year of biology; two years of foreign language (if the applicant did not study foreign language in high school, two additional years of history and/or science, in any combination, is acceptable); and two to three years of social science.

The Dental Hygienist program is a highly intensive program. It is suggested that students take some of the general studies courses prior to starting the program or during the summer between the first and second years of the program.

FIRST YEAR

Summer Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>806-206</td>
<td>Anatomy and Physiology*</td>
<td>4</td>
</tr>
<tr>
<td>Elective*</td>
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Total: 7

First Semester

<table>
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<tbody>
<tr>
<td>508-105</td>
<td>Dental Hygiene Theory and Laboratory I</td>
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<tr>
<td>508-113</td>
<td>Tooth Morphology</td>
<td>1</td>
</tr>
<tr>
<td>508-131</td>
<td>Dental Emergencies</td>
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</tr>
<tr>
<td>508-139</td>
<td>Histology</td>
<td>2</td>
</tr>
<tr>
<td>508-148</td>
<td>Oral Anatomy and Physiology</td>
<td>2</td>
</tr>
<tr>
<td>806-201</td>
<td>Chemistry*</td>
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Total: 15
Second Semester

<table>
<thead>
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<tbody>
<tr>
<td>303-140</td>
<td>Nutrition*</td>
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<tr>
<td>508-101</td>
<td>Clinical Dental Hygiene Laboratory II</td>
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<tr>
<td>508-103</td>
<td>Clinical Dental Hygiene Theory II</td>
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<tr>
<td>508-128</td>
<td>Dental Materials</td>
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<tr>
<td>508-138</td>
<td>Radiology</td>
<td>2</td>
</tr>
<tr>
<td>806-273</td>
<td>Microbiology*</td>
<td>3</td>
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Summer Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>809-231</td>
<td>Introduction to Psychology*</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Elective*</td>
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SECOND YEAR

First Semester

<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Credits</th>
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<tbody>
<tr>
<td>508-117</td>
<td>Clinical Dental Hygiene Theory III</td>
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<td>508-118</td>
<td>Clinical Dental Hygiene Lab III</td>
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<tr>
<td>508-135</td>
<td>Periodontics</td>
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<tr>
<td>508-145</td>
<td>Pathology</td>
<td>3</td>
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<tr>
<td>508-190</td>
<td>Personal/Community Health</td>
<td>2</td>
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<tr>
<td>801-142</td>
<td>Pharmacology</td>
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Second Semester

<table>
<thead>
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<tbody>
<tr>
<td>508-123</td>
<td>Clinical Dental Hygiene Theory IV</td>
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<tr>
<td>508-124</td>
<td>Clinical Dental Hygiene Lab IV</td>
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<tr>
<td>801-201</td>
<td>English Composition I*</td>
<td>3</td>
</tr>
<tr>
<td>809-203</td>
<td>Sociology*</td>
<td>3</td>
</tr>
<tr>
<td>809-236</td>
<td>Applied Psychology*</td>
<td>3</td>
</tr>
<tr>
<td>810-210</td>
<td>Fundamentals of Speech*</td>
<td>3</td>
</tr>
</tbody>
</table>

*Courses which may be taken prior to admission to the program.

Note: An elective may be any three-credit college transfer course of the student's choice.

GRADUATION REQUIREMENTS:
The student must achieve at least a 2.0 (C) grade in all dental hygiene-related courses and in microbiology and nutrition. The student must have a 2.0 (C) average in general education courses and achieve at least a 1.0 (D) in chemistry.

Medical Assistant

One-Year Diploma

The Medical Assistant program is designed to orient students to the duties of a physician's office employee, from general office procedures to the technical phases of examining room assisting and medical laboratory techniques. Related instruction runs concurrently with occupational instruction throughout the program. Occupational experience is provided through placement in a local office/clinic during the last four weeks of the final semester.

Aptitudes and interests that are helpful are a genuine interest in medicine and in helping people. A medical assistant is courteous, tactful, well-organized and able to work quickly and accurately under pressure, flexible and able to adjust to diverse personalities, as well as to follow directions and adhere to standards. Admission requirements: 1) high school graduation or G.E.D.; and 2) assessment test.

First Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>509-316</td>
<td>Clinical Assisting I</td>
<td>3</td>
</tr>
<tr>
<td>509-355</td>
<td>Clinical Laboratory I</td>
<td>3</td>
</tr>
<tr>
<td>509-360</td>
<td>Medical Terminology I</td>
<td>2</td>
</tr>
<tr>
<td>509-303</td>
<td>Body Structure and Function</td>
<td>2</td>
</tr>
<tr>
<td>509-313</td>
<td>Practice Management</td>
<td>1</td>
</tr>
<tr>
<td>100-163</td>
<td>Micro-Keyboarding</td>
<td>2</td>
</tr>
<tr>
<td>801-351</td>
<td>Communications I</td>
<td>2</td>
</tr>
<tr>
<td>509-371</td>
<td>Medical Office Emergencies/CPR</td>
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Second Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>509-362</td>
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<tr>
<td>509-361</td>
<td>Medical Terminology II</td>
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<tr>
<td>509-356</td>
<td>Clinical Laboratory II</td>
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</tr>
<tr>
<td>509-318</td>
<td>Health Concepts</td>
<td>1</td>
</tr>
<tr>
<td>509-314</td>
<td>Law and Ethics</td>
<td>1</td>
</tr>
<tr>
<td>801-352</td>
<td>Communications II</td>
<td>2</td>
</tr>
<tr>
<td>106-365</td>
<td>Medical Office Procedures</td>
<td>2</td>
</tr>
<tr>
<td>809-356</td>
<td>Human Relations Survey</td>
<td>1</td>
</tr>
<tr>
<td>509-370</td>
<td>Internship</td>
<td>2</td>
</tr>
</tbody>
</table>

Note: An elective may be any three-credit college transfer course of the student's choice.
Medical Laboratory Technician

Associate in Applied Science Degree

This program, approved by the National Accrediting Agency for Clinical Laboratory Science, prepares persons for work in clinical medical laboratories under the supervision of medical technologists. The course combines instruction in fundamental principles in selected phases of laboratory techniques as well as clinical experience in medical laboratories. The medical laboratory technician is trained to perform routine laboratory procedures in microbiology, blood banking, clinical chemistry, hematology, serology, and urinalysis. The final semester of training is in hospitals in Madison or throughout District 4. The list of hospitals used for the practicum is available in the program director’s office.

Aptitudes and interests that may be helpful include an interest in scientific, technical and mathematical work, the ability to work under pressure, to follow directions accurately and precisely and to tolerate close supervision.

Admission requirements: 1) high school graduation or G.E.D. with “C” or better average; 2) the following high school courses with C or better grades—three years of English, one year of chemistry, two years of algebra or one year of algebra and one year of geometry; and 3) ACT, SAT or CQT test. Students are accepted and admitted for both fall and spring semester.

**FIRST YEAR**

**First Semester**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>513-100</td>
<td>Introduction to Medical Laboratory Careers (CPR and Laboratory Safety)</td>
<td>3</td>
</tr>
<tr>
<td>513-101</td>
<td>Clinical Microscopy</td>
<td>3</td>
</tr>
<tr>
<td>801-151</td>
<td>Communication Skills 1* OR</td>
<td></td>
</tr>
<tr>
<td>801-201</td>
<td>English Composition</td>
<td>3</td>
</tr>
<tr>
<td>806-101</td>
<td>General Chemistry*</td>
<td>5</td>
</tr>
<tr>
<td>806-173</td>
<td>Microbiology*</td>
<td>2</td>
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**Second Semester**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>513-104</td>
<td>Hematology</td>
<td>5</td>
</tr>
<tr>
<td>513-111</td>
<td>Clinical Microbiology</td>
<td>5</td>
</tr>
<tr>
<td>801-152</td>
<td>Communication Skills II* OR</td>
<td></td>
</tr>
<tr>
<td>801-202</td>
<td>English Composition II*</td>
<td>3</td>
</tr>
<tr>
<td>806-106</td>
<td>Anatomy and Physiology*</td>
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**Summer Session**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>809-197</td>
<td>Contemporary American Society* OR</td>
<td>3</td>
</tr>
<tr>
<td>809-203</td>
<td>Introduction to Sociology*</td>
<td>3</td>
</tr>
<tr>
<td>809-199</td>
<td>Psychology of Human Relations* OR</td>
<td></td>
</tr>
<tr>
<td>809-231</td>
<td>Introduction to Psychology*</td>
<td>3</td>
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</table>

**SECOND YEAR**

**First Semester**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>513-107</td>
<td>Instrumentation</td>
<td>2</td>
</tr>
<tr>
<td>513-108</td>
<td>Clinical Immunology</td>
<td>5</td>
</tr>
<tr>
<td>513-109</td>
<td>Clinical Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>809-195</td>
<td>Economics* OR</td>
<td>3</td>
</tr>
<tr>
<td>809-222</td>
<td>State and Local Government* OR</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Elective*</td>
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</table>

**Second Semester**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>513-112</td>
<td>Seminar</td>
<td>1</td>
</tr>
<tr>
<td>513-113</td>
<td>Practicum (18 weeks)</td>
<td>10</td>
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<tr>
<td></td>
<td>Elective*</td>
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**SUGGESTED ELECTIVES**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>513-441</td>
<td>Phlebotomy</td>
<td>2</td>
</tr>
<tr>
<td>536-310</td>
<td>Pharmaceutical Calculations</td>
<td>5</td>
</tr>
</tbody>
</table>

Note: All courses beginning with 513 must be taken in sequential order.

* Courses which may be taken prior to entering the program. May be taken at the college transfer level. An elective may be any three-credit college transfer course of the student’s choice.

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Nursing Assistant

**120-hour Certificate of Completion**

The Nursing Assistant program has been developed to prepare persons for employment as nursing assistants and home health aides. Upon successful completion of this course, the student will demonstrate the ability to perform the following skills under the supervision of a licensed nurse: communication skills, behaviors which support and promote individual rights, performance of basic nursing skills, performance of personal care skills, assisting individuals in maintaining independence, and appropriate interaction with individuals with Alzheimer’s disease and related dementias. The program is recognized by the Wisconsin Department of Health and Social Services as a nurse aide training program and competency evaluation program.

Upon successful completion of the program, the student is eligible for the Wisconsin Nursing Assistant Registry for employment in nursing homes, hospitals, home health agencies and homes for the developmentally disabled. Applicants will be required to complete a health history form and undergo a TB skin test/x-ray; a blood draw may be required for mumps and rubella titre. Admission requirements: none.
**Occupational Therapy**

**Associate in Applied Arts Degree**

Occupational therapy is a health profession serving persons whose everyday functioning is complicated by developmental disability, physical illness or injury, emotional problems or aging changes. Occupational therapists use activities designed to: 1) improve the physical, sensory, cognitive, social and emotional skills needed for daily activities; 2) offer alternative approaches and adaptive devices when such capacities are impaired or lost; and 3) ultimately promote a healthy balance and maximum independence in each client's self-care, work and leisure performance.

This program prepares occupational therapy assistants who collaborate with occupational therapists. OT assistants are employed in community settings providing mental health, residential care and home health services as well as in hospitals and schools. Graduates also serve as activity directors conducting health maintenance activity programs for the elderly in senior centers, daycare centers and nursing homes.

Admission requirements: 1) high school graduate or G.E.D. with above average grades; 2) the following high school courses—one year of biology, one year of chemistry, three to four years of English, two years of mathematics, and two years of social studies; and 3) ACT, SAT or CQT scholastic achievement test. Students are accepted and admitted for both fall and spring semesters.

### FIRST YEAR

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>514-101</td>
<td>Introduction to Occupational Therapy</td>
</tr>
<tr>
<td>514-110</td>
<td>Self/Group Dynamics</td>
</tr>
<tr>
<td>514-148</td>
<td>Minor Media I</td>
</tr>
<tr>
<td>801-151</td>
<td>Communication Skills I OR</td>
</tr>
<tr>
<td>801-201</td>
<td>English Composition I</td>
</tr>
<tr>
<td>806-207</td>
<td>Anatomy and Physiology I</td>
</tr>
<tr>
<td>809-199</td>
<td>Psychology of Human Relations OR</td>
</tr>
<tr>
<td>809-231</td>
<td>Introduction to Psychology</td>
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</table>

<table>
<thead>
<tr>
<th>Second Semester</th>
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</thead>
<tbody>
<tr>
<td>514-115</td>
<td>Developmental Principles</td>
</tr>
<tr>
<td>514-120</td>
<td>Occupational Therapy Process</td>
</tr>
<tr>
<td>514-149</td>
<td>Minor Media II</td>
</tr>
<tr>
<td>801-152</td>
<td>Communication Skills II OR</td>
</tr>
<tr>
<td>801-202</td>
<td>English Composition II OR</td>
</tr>
<tr>
<td>810-242</td>
<td>Public Speaking</td>
</tr>
<tr>
<td>806-208</td>
<td>Anatomy and Physiology II</td>
</tr>
<tr>
<td>809-233</td>
<td>Developmental Psychology</td>
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<thead>
<tr>
<th>Summer Session</th>
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</thead>
<tbody>
<tr>
<td>514-150</td>
<td>Media and Skills</td>
</tr>
<tr>
<td>809-197</td>
<td>Contemporary American Society OR</td>
</tr>
<tr>
<td>809-203</td>
<td>Introduction to Sociology</td>
</tr>
</tbody>
</table>

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# HEALTH OCCUPATIONS

## Optometric Technician

### Associate in Applied Science Degree

As a member of the vision care team, the graduate technician works under the supervision of the optometrist and assists in providing quality vision care services to patients. Instruction emphasizes the multiple and unique duties required of an optometric technician in a well-managed optometric practice. In addition to technical and clinical training, a general education background is provided to develop the student’s maximum capacity for functioning with the public. The technical training includes anatomy and physiology of the eye, optical properties of light, optometric terminology, use of optical instruments, determination of lens powers, frame styling and adjustments, assisting in contact lens procedures, vision training, vision screening and chairside assisting. Clinical experience is an important part of the curriculum.

Workers in this field should enjoy working with children and adults, should enjoy office responsibilities and contact with people, and should be able to follow prescribed procedures. Admission requirements: 1) one year each of the following high school courses—algebra, biology and geometry; 2) typing—30 wpm; and 3) ACT, SAT or CQT tests.

### First Year

#### Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>516-101 Optometrics I</td>
<td>2</td>
</tr>
<tr>
<td>516-105 General Optics</td>
<td>3</td>
</tr>
<tr>
<td>801-151 Communication Skills 1*</td>
<td>3</td>
</tr>
<tr>
<td>510-103 Body Structure</td>
<td>3</td>
</tr>
<tr>
<td>809-199 Psychology of Human Relations*</td>
<td>3</td>
</tr>
<tr>
<td>516-115 Ocular Anatomy</td>
<td>2</td>
</tr>
<tr>
<td>516-120 Ophthalmology</td>
<td>4</td>
</tr>
<tr>
<td>516-125 Optometrics II</td>
<td>4</td>
</tr>
<tr>
<td>809-197 Contemporary American Society*</td>
<td>3</td>
</tr>
<tr>
<td>810-101 Public Speaking*</td>
<td>3</td>
</tr>
</tbody>
</table>

*May be taken at the college transfer level. May also be taken prior to starting optometric courses.

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## Pharmacy Technician

### One-Year Diploma

Pharmacy Technicians are individuals educated and trained to assist registered pharmacists in institutional and community pharmacies. Pharmacy Technicians perform many tasks in the pharmacy, including recordkeeping, preparation of medications, and distribution and delivery of medications. Students who successfully complete the one-year program will receive a vocational diploma. They will be able to perform the tasks necessary for employment in institutional and community pharmacies.

Admission requirements: 1) good health as evidenced by a medical examination and proper immunizations; 2) high school graduation or equivalent; 3) one year of high school science and math; and 4) assessment test.

#### First Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>106-163 Micro-Keyboarding</td>
<td>2</td>
</tr>
<tr>
<td>509-303 Body Structure and Terminology</td>
<td>2</td>
</tr>
<tr>
<td>536-310 Pharmaceutical Calculations</td>
<td>2</td>
</tr>
<tr>
<td>536-311 Pharmacy Communications</td>
<td>2</td>
</tr>
<tr>
<td>536-312 Pharmacy Operations</td>
<td>2</td>
</tr>
</tbody>
</table>
| 536-322 Introduction to Drug Classification and Pharmacology | 2 | 2
| 536-338 Pharmacy Clinical Affiliation I     | 1       |
| 809-352 Human Relations                     | 2       |
Second Semester
536-313 Pharmacy Operations II 2
536-315 Pharmacy Regulation and Inventory Control 2
536-324 Pharmacy Unit Dose 2
536-326 Pharmacy Sterile Products 3
536-330 Pharmacy Bulk Compounding 2
536-339 Pharmacy Clinical Affiliation II 4
536-346 Pharmacy Seminar 2 16

Practical Nursing

One-Year Diploma

The Practical Nursing program is planned to enable the student to acquire the knowledge, understanding, skills and attitudes necessary to become a qualified, competent practical nurse. The practical nurse, under the direction and supervision of a registered nurse and/or physician, is prepared to assume responsibility for nursing in those situations relatively free of complexity and to assist the professional nurse and/or physician in more complex nursing situations. The program includes lectures, demonstrations and supervised practice at approved affiliating hospitals and nursing homes within District 4. The program has the approval of the Wisconsin State Board of Nursing. Classes are admitted twice each year, and students are admitted to the Madison-based program the first semester and to the Fort Atkinson extension of the program the second semester. Upon completion of the program, the student is eligible to take the national licensure examination for certification as a licensed practical nurse. Admission prerequisites: 1) high school graduation or G.E.D.; and 2) assessment test.

First Semester
510-334 Elementary Nursing 5
510-335 Body Structure 2
510-336 Nursing the Adult I 4
510-339 Interpersonal Relationships in Nursing 1
510-356 Growth and Development 2 14

Second Semester
510-337 Nursing the Adult II 7
510-359 Nursing the Mentally Ill 3
510-362 Parent/Child Nursing 4 14

Summer Semester (6 weeks)
510-338 Nursing the Adult III and Law 5

Radiography

Associate in Applied Science Degree

The radiographer is the producer of medical images for diagnosis of disease. The radiographer's duties include: positioning of patient to obtain proper projection; aligning source (usually x-radiation); making exposure factor selections; processing of the image (photographically and electronically); and storage and retrieval of images.

Graduates of this program are eligible to take the entry-level certification examination (ARRT) and are employable in radiology and medical imaging departments in hospitals and clinics. Radiographers should be able to follow instructions carefully and work to prescribed standards, should be able to use good judgment in following procedures and handling problems. They should be interested in work of a technical or scientific nature and should be willing and able to work under pressure in emergency situations.

Admission requirements: 1) one year and a grade of "C" or better in algebra, geometry and chemistry/physics; and 2) a satisfactory score on the ACT, SAT, CQT or other comparable test. A program-developed assessment test is highly recommended; it is used for student advising.

FIRST YEAR

First Semester
526-101 Introduction to Radiologic Technology 5
526-102 Anatomy 3
526-103 Physics 2
526-111 Radiographic Procedures I 5
526-161 Practicum I 1
509-180 Medical Terminology 2 20

Second Semester
526-112 Radiographic Procedures II 5
526-131 Radiographic Techniques I 5
526-141 Radiologic Science 3
526-162 Practicum II 1
Elective 3 17

Summer Semester
526-121 Applied Clinical I 2
526-132 Radiographic Techniques II 3 5

SECOND YEAR

First Semester
526-122 Applied Clinical II 2
526-150 Special Procedures 4
801-151 Communication Skills I* OR
801-201 English Composition I 3
804-171 Basic Computer Mathematics* 2
809-199 Psychology of Human Relations* OR
809-231 Introduction to Psychology* 3 14
**Respiratory Therapy**

**Associate in Applied Science Degree**

The Respiratory Therapy program prepares individuals to work under physician direction in a hospital setting. A therapist's responsibilities include delivery of medical gas therapy, administration of inhaled medication, management of patients requiring artificial ventilation and pulmonary evaluation and diagnostic techniques. Graduates of this program are eligible to take national entry-level certification exams and advanced practitioner registry examinations.

Practitioners in this field should be able to interpret and follow prescribed standards and use good judgment, problem-solving and communication skills in implementing respiratory care plans. They should be interested in an occupation of a technical and scientific nature and should be able to work under pressure in emergency situations.

Admission requirements: 1) high school chemistry and two years of high school mathematics are desirable; and 2) ACT, SAT or CQT placement tests are required of high school graduates; however, performance on post-secondary education can be used to waive this requirement.

**FIRST YEAR**

**First Semester**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>515-105</td>
<td>Introduction to Respiratory Therapy</td>
<td>2</td>
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<tr>
<td>801-151</td>
<td>Communication Skills I* OR</td>
<td></td>
</tr>
<tr>
<td>801-201</td>
<td>English Composition I*</td>
<td>3</td>
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<tr>
<td>806-106</td>
<td>General Anatomy and Physiology* OR</td>
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<tr>
<td>806-207</td>
<td>Anatomy and Physiology I*</td>
<td>4</td>
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<tr>
<td>806-155</td>
<td>Technical Science*</td>
<td>2</td>
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<tr>
<td>806-201</td>
<td>General Chemistry*</td>
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**Second Semester**

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<td>515-120</td>
<td>Respiratory Therapy Procedures I</td>
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<td>515-125</td>
<td>Respiratory Therapy Clinical Practice I</td>
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<tr>
<td>515-130</td>
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<td>515-131</td>
<td>Pharmacology</td>
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**SECOND YEAR**

**First Semester**

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<tr>
<td>515-122</td>
<td>Respiratory Therapy Procedures II</td>
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<tr>
<td>515-126</td>
<td>Respiratory Therapy Clinical Practice II</td>
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<tr>
<td>809-197</td>
<td>Contemporary American Society* OR</td>
<td></td>
</tr>
<tr>
<td>809-203</td>
<td>Introduction to Sociology*</td>
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**Second Semester**

<table>
<thead>
<tr>
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<th>Course Title</th>
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<tbody>
<tr>
<td>515-127</td>
<td>Respiratory Therapy Clinical Practice III</td>
<td>2</td>
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</tbody>
</table>

*Courses which may be taken prior to entering the program. May also be taken at the College Transfer level.*
# Surgical Technician

## One-Year Diploma

The Surgical Technician program is designed to prepare persons to function as members of a surgical team. Emphasis is placed on specific functions in the operating room and other areas concerned with surgical asepsis. Throughout the course, lectures and demonstrations are supplemented by experiences in operating rooms, central supply areas, recovery rooms, emergency care and ambulatory services. In addition to the study of medical-surgical terminology, weights and measures, and moral and legal responsibilities, the student receives training in aseptic techniques, principles of operating room techniques, surgical procedures and related professional activities. The student learns not only the correct techniques for positioning and transporting patients, but also accepted methods for observing, reporting and recording selected surgical data. Approximately 1,000 hours are spent in theory, laboratory and clinical practice. Students are also required to be certified in CPR.

Personal aptitudes that may be helpful include an ability to learn and apply technical knowledge, an ability to work under close supervision and to follow prescribed procedures carefully with the realization that errors may have serious consequences. Admission requirements: 1) high school graduation or G.E.D.; 2) assessment test of basic math, reading comprehension and writing skills.

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Credits</th>
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<tbody>
<tr>
<td>512-300</td>
<td>Introduction to the Operating Room</td>
</tr>
<tr>
<td>512-303</td>
<td>Surgical Technician Anatomy I</td>
</tr>
<tr>
<td>512-310</td>
<td>Surgical Technician Communications</td>
</tr>
<tr>
<td>512-315</td>
<td>Surgical Technician Theory/Laboratory I</td>
</tr>
<tr>
<td>512-317</td>
<td>Functional Microbiology</td>
</tr>
<tr>
<td>809-356</td>
<td>Human Relations Survey</td>
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<table>
<thead>
<tr>
<th>Second Semester</th>
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<tbody>
<tr>
<td>512-320</td>
<td>Surgical Technician Theory II</td>
</tr>
<tr>
<td>512-321</td>
<td>Surgical Technician Anatomy II</td>
</tr>
<tr>
<td>512-323</td>
<td>Surgical Technician Laboratory II</td>
</tr>
<tr>
<td></td>
<td><strong>Total Credits</strong></td>
</tr>
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</table>
Home Economics Division
HOME ECONOMICS

MTC's Home Economics Division offers programs to prepare students for employment in a variety of home- and health-related fields.

Child Care and Development

Associate in Applied Science Degree

The two-year Child Care and Development program prepares students to function as teacher-caregivers in early childhood settings. Students may attend one year only if they wish to be child care assistants rather than teacher-caregivers. The program combines classroom instruction in child care, English and social science with supervised fieldwork in area child care centers, nursery schools, Head Start programs or family day care homes.

Graduates become responsible for the care and education of a group of children in the birth-to-six age range. They create and maintain safe and healthy play environments, guide behavior, plan and implement learning activities and work cooperatively with staff and parents.

Individuals interested in child care should have a strong interest in working with children and families. Important aptitudes include the ability to establish positive interpersonal relationships with children and adults, flexibility, good judgment, and effective verbal and written communication skills. Good health and abundant energy are essential. Admissions requirement: an eighth-grade reading level minimum as determined by a reading test or its equivalent.

FIRST YEAR

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>307-100</td>
<td>Introduction to Early Childhood Education</td>
<td>1</td>
</tr>
<tr>
<td>307-101</td>
<td>Child Growth and Development I</td>
<td>3</td>
</tr>
<tr>
<td>307-103</td>
<td>Understanding and Guiding Behavior I*</td>
<td>3</td>
</tr>
<tr>
<td>307-105</td>
<td>Basic Care</td>
<td>3</td>
</tr>
<tr>
<td>307-106</td>
<td>Child Care and Development Practicum I*</td>
<td>2</td>
</tr>
<tr>
<td>307-107</td>
<td>Practicum Seminar I*</td>
<td>2</td>
</tr>
<tr>
<td>801-151</td>
<td>Communication Skills I</td>
<td>3</td>
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Second Semester

<table>
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<tr>
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<th>Credits</th>
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<tbody>
<tr>
<td>307-102</td>
<td>Child Growth and Development II</td>
<td>3</td>
</tr>
<tr>
<td>307-104</td>
<td>Understanding and Guiding Behavior II*</td>
<td>3</td>
</tr>
<tr>
<td>307-108</td>
<td>Practicum II*</td>
<td>2-3</td>
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<tr>
<td>307-109</td>
<td>Practicum Seminar II*</td>
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<tr>
<td>307-114</td>
<td>Activity Planning I*</td>
<td>3</td>
</tr>
<tr>
<td>307-117</td>
<td>Working With Staff and Parents</td>
<td>2</td>
</tr>
<tr>
<td>307-118</td>
<td>Culture, Class and Gender</td>
<td>2</td>
</tr>
<tr>
<td>801-197</td>
<td>Technical Reporting</td>
<td>3</td>
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SECOND YEAR

FIRST SEMESTER

<table>
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<tbody>
<tr>
<td>307-110</td>
<td>Practicum III*</td>
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<td>307-111</td>
<td>Practicum Seminar III*</td>
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<tr>
<td>307-115</td>
<td>Activity Planning II*</td>
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<tr>
<td>307-119</td>
<td>Children With Special Needs</td>
<td>2</td>
</tr>
<tr>
<td>307-120</td>
<td>Play and Play Environments*</td>
<td>2</td>
</tr>
<tr>
<td>809-143</td>
<td>The Family in America</td>
<td>3</td>
</tr>
<tr>
<td>809-199</td>
<td>Psychology of Human Relations</td>
<td>3</td>
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<td>Elective</td>
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SECOND SEMESTER

<table>
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<tr>
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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>307-112</td>
<td>Practicum IV*</td>
<td>3</td>
</tr>
<tr>
<td>307-113</td>
<td>Practicum Seminar IV: Professionalism*</td>
<td>2</td>
</tr>
<tr>
<td>307-116*</td>
<td>Activity Planning III*</td>
<td>1</td>
</tr>
<tr>
<td>307-121</td>
<td>Infant and Toddler Care and Development</td>
<td>2</td>
</tr>
<tr>
<td>307-122</td>
<td>Administration of Group Centers and Family Day Care Homes</td>
<td>3</td>
</tr>
<tr>
<td>809-197</td>
<td>Contemporary American Society</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Elective</td>
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<tr>
<td></td>
<td>* Co-requisites: courses must be taken at the same time.</td>
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SUGGESTED ELECTIVES

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>307-123</td>
<td>Working with Children who Challenge: Social and Emotional Issues</td>
<td>3</td>
</tr>
<tr>
<td>545-122</td>
<td>Health Emergencies</td>
<td>3</td>
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</tbody>
</table>

Clothing Design and Sales

Associate in Applied Arts Degree

The Clothing Design and Sales program prepares students for work in apparel and textile careers. Skills in fit and design or sales and demonstration of machines, fabrics, notions and crafts are learned. Marketing, management and supervision are emphasized for both design and sales/demonstration students. Students intern in their last semester in either design or sales and demonstration, depending on their interests. Graduates find employment as designers in apparel manufacturing or in their own design or custom sewing businesses, or in sales and demonstration for fabric stores, sewing machine, pattern and notion companies, and other textile-related businesses.
HOME ECONOMICS

FIRST YEAR
First Semester Credits
102-101 Related Business Mathematics 3
104-133 Principles of Fashion Marketing 4
301-171 Textiles 3
301-180 Construction Techniques/Fitting 4
801-151 Communication Skills I 3
  17
Second Semester
104-104 Principles of Salesmanship 3
104-119 Visual Merchandising 3
301-175 Line, Color and Design in Fabric and Apparel 3
301-185 Equipment Demonstration and Sales 3
801-197 Technical Reporting 3
809-199 Psychology of Human Relations 2
  18
SECOND YEAR
First Semester
104-183 Supervision 2
301-181 Advanced Construction Techniques 4
301-190 Apparel Design 4
809-197 Contemporary American Society 3
Elective 3
  16
Second Semester
301-165 Workroom Management 3
301-167 Design/Sales Practicum 3
301-178 Decorative Textiles 3
809-195 Economics 3
Elective 3
  15
ELECTIVES
101-105 Applied Accounting 4
104-102 Principles of Marketing 3
104-106 Small Business Management 2
104-117 Small Store Operation 3
104-131 Fashion Promotion 4
104-135 Elements of Fashion 3
301-128 Tailoring 3
614-125 Computer-Aided Design 2.3

Graduate Dietetic Technicians provide nutritional care and/or food service management services. They may work under the direction of Registered Dietitians in hospitals and nursing homes or assist Public Health Nutritionists with nutrition education and feeding programs in the community. Successful students demonstrate strong verbal and written communication skills, organizational abilities, emotional stability and intellectual curiosity.

Prerequisite: an upper-level high school science course, such as chemistry, advanced biology, or physiology and anatomy is required for entrance. Students not meeting this requirement may take Pre-College Chemistry at MATC.

FIRST YEAR
First Semester Credits
303-105 Introduction to Dietetics and the Health Care Field 3
303-110 Food Science/DT 4
303-111 Basic Nutrition I 3
303-122 Medical Terminology in Nutritional Care 2
303-123 Principles of Bio-Organic Chemistry 3
801-151 Communication Skills I 2
  18
Second Semester
303-112 Basic Nutrition II 3
303-120 Supervised Field Experience I 3
303-128 Food Systems Management 3
303-150 Physiology for Dietetics 3
801-152 Communication Skills II 3
303-119 Elective 3
  18
SECOND YEAR
First Semester
303-113 Nutrition Education I 3
303-130 Diet Therapy I 4
303-132 Supervised Field Experience III 3
809-156 Aging and its Social Problems 3
809-197 Contemporary American Society 3
809-199 Psychology of Human Relations 2
  19
Second Semester
303-129 Employment Orientation and Research 2
303-131 Diet Therapy II 3
303-133 Nutrition Practicum 4
303-115 Elective 3
  12
ELECTIVES
303-115 Food Service Management in Health Care Facilities 3
303-119 Applied Clinical Care 3

Dietetic Technician Associate in Applied Science Degree

The Dietetic Technician program prepares students to function as a member of the health care team in community nutrition, nutritional care and/or food service management. The program emphasizes the relationship of foods and nutrition to health. Students apply their knowledge in practical experiences during three semesters as affiliates in hospitals, nursing homes and community settings.

The program is approved by the American Dietetic Association (ADA). Graduates are eligible to take the ADA credentialing examination to achieve the status of D.T.R.–Dietetic Technician Registered.
**HOME ECONOMICS**

**Interior Design**

**Associate in Applied Arts Degree**

The Interior Design program prepares students for entry-level sales and design positions in residential and commercial design with an emphasis on positions in the home furnishings industry. Graduates are employed by interior design studios, space planning firms, office dealerships, insurance companies, furniture stores, painting and decorating centers, flooring stores, building centers, kitchen and bath design firms, and by manufacturers as sales representatives. A growing number of experienced graduates are self-employed in their own interior design businesses.

Successful interior designers are creative and visually sensitive individuals who enjoy working with people and the materials and elements of interior design. They are well-organized and decisive with the ability to follow through on all tasks, and are effective sales-oriented communicators.

**FIRST YEAR**

<table>
<thead>
<tr>
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<td>Introduction to Interior Design</td>
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<tr>
<td>304-102</td>
<td>Fundamentals of Design</td>
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<tr>
<td>304-115</td>
<td>Basic Drafting</td>
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<tr>
<td>304-116</td>
<td>Perspective Lab</td>
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<tr>
<td>304-121</td>
<td>Applied Mathematics-J.D.</td>
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<tr>
<td>801-151</td>
<td>Communication Skills I</td>
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**Second Semester**

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<tr>
<td>301-173</td>
<td>Textiles-J.D.</td>
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<tr>
<td>304-101</td>
<td>Interior Design I</td>
<td>3</td>
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<tr>
<td>304-111</td>
<td>Window Treatments-J.D.</td>
<td>3</td>
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<tr>
<td>304-112</td>
<td>Rendering</td>
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<tr>
<td>304-141</td>
<td>History of Architecture and Interiors I</td>
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<tr>
<td>801-152</td>
<td>Communication Skills II</td>
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**SECOND YEAR**

**First Semester**

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<td>Salesmanship</td>
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<td>304-103</td>
<td>Interior Design II</td>
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<tr>
<td>304-118</td>
<td>History of Architecture and Interiors II</td>
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<td>304-119</td>
<td>Commercial Interiors</td>
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<td>304-157</td>
<td>Lighting</td>
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**Second Semester**

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<th>Course Title</th>
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<td>304-126</td>
<td>Interior Design Internship</td>
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<tr>
<td>304-131</td>
<td>Applied Interior Design</td>
<td>3</td>
</tr>
<tr>
<td>308-100</td>
<td>Consumer Resources and Information OR</td>
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<tr>
<td>809-195</td>
<td>Economics</td>
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<tr>
<td>809-197</td>
<td>Contemporary American Society</td>
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**ELECTIVES**

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<tr>
<td>104-119</td>
<td>Visual Merchandising</td>
<td>3</td>
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<tr>
<td>304-140</td>
<td>Sewing for the Home</td>
<td>2</td>
</tr>
<tr>
<td>304-149</td>
<td>Reupholstery-J.D.</td>
<td>2</td>
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<tr>
<td>304-152</td>
<td>I.D. Special Topics</td>
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<tr>
<td>304-156</td>
<td>Open Office Systems</td>
<td>2</td>
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<tr>
<td>614-125</td>
<td>Computer-Aided Drafting-2D</td>
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</table>
The Marketing Department prepares students for dynamic careers involving goods and services. As the concept of consumerism gains strength, marketing is being identified as the most important function of business today.

### Hospitality Management (Hotel-Motel)

**Associate in Applied Science Degree**

The hospitality industry is one of Wisconsin's most important employers, representing over seven percent of the state's jobs in hotels, motels, restaurants and bars. The outlook for growth is optimistic, based on the increasing popularity of eating and dining away from home, an anticipated greater emphasis on early retirement and leisure time for traveling, and the continuing demand for business and convention lodging.

Although a variety of interesting jobs is available in the field, the expectation for greatest growth in jobs is at the management level. The two-year program in Hospitality Management provides the background for advancement in the field, especially for those interested in service to people away from home. The course of study includes management theory and practice, with application to hospitality issues and successful work experience in the field.

<table>
<thead>
<tr>
<th>FIRST YEAR</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>First Semester</td>
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<tr>
<td>102-102 Business Mathematics</td>
<td>3</td>
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<td>104-101 Career Orientation</td>
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<tr>
<td>104-102 Marketing Principles</td>
<td>3</td>
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<tr>
<td>109-128 Hospitality Management</td>
<td>3</td>
</tr>
<tr>
<td>801-151 Communication Skills I</td>
<td>3</td>
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<tr>
<td>809-199 Psychology of Human Relations</td>
<td>3</td>
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<tr>
<td>Second Semester</td>
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<tr>
<td>101-114 Applied Accounting</td>
<td>3</td>
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<tr>
<td>103-138 Office Writer OR</td>
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<tr>
<td>106-163 Micro Keyboarding</td>
<td>2</td>
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<td>104-104 Selling Principles</td>
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<td>104-173 Occupational Research</td>
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<td>109-136 Hotel and Restaurant Law</td>
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<td>Electives</td>
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### Insurance Services

**Associate in Applied Science Degree**

The Insurance Services program is designed to meet the entry-level educational needs of most segments of the insurance industry. Typical positions for graduates may include customer service representatives (underwriter assistants/coordinators, risk raters/clerks); claims coordinators (property/casualty commercial and personal lines); health claims (coordination of benefits, Medicare/Medicaid); or sales/marketing representatives (personal, commercial, property, casualty, life and health).

Training blends general educational development and required insurance technical skills. The program is intended to umbrella a large segment of entry-level qualifications desired in life and casualty job openings.
First Year

First Semester

101-114  Applied Accounting  3
102-102  Business Mathematics  3
103-138  Office Writer OR  (1)
106-163  Micro Keyboarding  2
104-102  Marketing Principles  3
104-109  Principles of Insurance (INS 21)  3
801-151  Communication Skills I  3

Second Semester

104-104  Selling Principles  3
104-142  Casualty Insurance (INS 23)  3
104-143  Personal Insurance (INS 22)  3
809-199  Psychology of Human Relations  3
810-101  Speech  3
            Elective  2
                  17

Second Year

First Semester

102-160  Business Law I  3
104-141  Insurance Adjusting (AIC 34)  3
104-144  Underwriting Personal Lines (AU 62)  3
104-160  Sales Management  3
809-197  Contemporary American Society  3

Second Semester

104-128  Principles of Underwriting (AU 61)  3
104-140  Personal Investment Planning (HS 323)  3
104-172  Career Planning and Development  3
809-195  Economics  3
            Elective  4
                  16

Suggested Electives

104-103  Marketing Information Management  3
104-110  Supervision Principles  3
104-125  Promotion Principles  3
104-150  Employee Benefits  3
104-151  Commercial Liability Underwriting (AU 63)  3
104-175  Field Training Seminar  2
            (or see elective list)

Credits

16-17

Marketing

Associate in Applied Science Degree

Marketing offers many career pursuits for qualified men and women with initiative and trained abilities. Marketing abounds with opportunities in the retail, wholesale, manufacturing and related marketing fields. Study encompasses a broad, dynamic and diversified area involving goods and services, with many opportunities for specialization and growth. In today's economy, the consumer is the center of the business universe. Acceptance of this consumer concept is having broad implications in economic thinking. As this concept gains greater acceptance, marketing is being identified as the most important function in business, and is also becoming more critical in the survival and growth of non-profit institutions.

First Year

First Semester

102-102  Business Mathematics  3
104-101  Career Orientation  1
104-102  Marketing Principles  3
104-104  Selling Principles  3
801-151  Communication Skills I  3
809-199  Psychology of Human Relations  3

Second Semester

101-114  Applied Accounting  3
103-138  Office Writer OR  (1)
106-163  Micro Keyboarding  (2)
104-103  Marketing Information Management  3
104-110  Supervision Principles  3
104-185  Marketing Topics and Trends  3
810-101  Speech  3

Suggested Electives

101-113  Accounting II-Principles  4
104-106  Small Business Management  2
104-126  Promotional Campaigns  3
104-129  Consumer Behavior  2
104-175  Field Training Seminar  2
111-109  Principles of Insurance  3
            (or see elective list)
Marketing-Fashion Merchandising

Associate in Applied Science Degree

Fashion Merchandising presents many exciting career opportunities to imaginative men and women who have the ability and interest to create, develop and promote new fashion ideas and products. Merchandising organizations, such as department stores, retail chains and specialty stores, need enthusiastic people with a specialized education.

Professional courses stress an understanding of marketing activities and a knowledge of fashion products and practices. Field trips to markets and retail centers such as New York, Chicago and Minneapolis, as well as guest lecturers, enrich class studies and enable students to explore career opportunities. Second-year students receive supervised work experience either in the summer between the first and second year or in the third semester.

FIRST YEAR

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<td>104-125</td>
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<td>104-133</td>
<td>Principles of Fashion Marketing</td>
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SECOND YEAR

FIRST SEMESTER

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<td>104-183</td>
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<td>301-171</td>
<td>Textiles</td>
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CUMULATIVE CREDITS 17
**MARKETING**

**Second Semester**

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<td>104-138</td>
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<td>809-125</td>
<td>Government: Process and Practices</td>
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<td>810-101</td>
<td>Speech</td>
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* 104-117 may be taken either the first or second semester of the second year.

**SUGGESTED ELECTIVES**

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<td>Promotional Campaigns</td>
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<td>104-137</td>
<td>Merchandise Planning and Control</td>
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<td>104-178</td>
<td>Menswear Retailing</td>
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**Real Estate**

**Associate in Applied Science Degree**

Opportunities in residential, commercial and industrial real estate for trained men and women include careers as brokers, appraisers, property managers or mortgage lenders. Real estate includes the planning and developing of office buildings, industrial complexes, farms, planned recreational developments, public land acquisitions, shopping centers and the complex field of mortgage lending and finance. This program explores the basics of the real estate market, property rights, ownership, construction, financing and brokerage as they relate to the American consumer.

**FIRST YEAR**

**First Semester**

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<td>Marketing Principles</td>
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<td>194-182</td>
<td>Real Estate Law</td>
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<tr>
<td>801-151</td>
<td>Communication Skills I</td>
<td>3</td>
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<tr>
<td>809-195</td>
<td>Economics</td>
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**Second Semester**

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<td>194-184</td>
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<td>Real Estate Marketing</td>
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<td>194-190</td>
<td>Property Management and Development I</td>
<td>3</td>
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<td>810-101</td>
<td>Speech</td>
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**SECOND YEAR**

**First Semester**

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<td>Promotion Principles</td>
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<tr>
<td>194-186</td>
<td>Real Estate Appraisal I</td>
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<td>809-199</td>
<td>Psychology of Human Relations</td>
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<td>Career Planning and Development</td>
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<td>194-175</td>
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<td>194-188</td>
<td>Real Estate Planning and Construction</td>
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<td>809-197</td>
<td>Contemporary American Society</td>
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<td>Real Estate Appraisal II</td>
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**Recreation Resource Operation**

**Associate in Applied Science Degree**

The Recreation Resource Operation Associate program is designed to develop resource operation competencies in the technical, problem-solving, human relations and life skills needed for entry-level employments in public, private and semi-private agencies. The program develops an operator's ability to plan, maintain, develop, operate and protect natural and man-made resources, areas, facilities and equipment. Trained entry-level operators work as center directors; pool directors; camp directors; hotel, motel, resort or cruise ship social directors; building and grounds supervisors; park resource assistants and naturalist assistants. Job opportunities also exist in campgrounds, sport centers, game preserves, pro shops, ski areas and theme parks.

**FIRST YEAR**

**First Semester**

<table>
<thead>
<tr>
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<th>Course Title</th>
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<td>Introduction to Leisure Services</td>
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<td>109-103</td>
<td>Recreation and Leisure in Modern Society</td>
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<td>801-151</td>
<td>Communication Skills I</td>
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<tr>
<td>809-199</td>
<td>Psychology of Human Relations</td>
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**Second Semester**

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<td>109-106</td>
<td>Programming and Public Relations</td>
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<tr>
<td>109-107</td>
<td>Recreation Safety</td>
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<td>109-115</td>
<td>Recreational Resource Management</td>
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<td>109-175</td>
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<td>801-197</td>
<td>Technical Reporting</td>
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MARKETING

SECOND YEAR

First Semester

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<td>104-102 Marketing Principles</td>
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<tr>
<td>109-140 Field Survey</td>
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<td>109-150 Management of Leisure Facilities</td>
<td>3</td>
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<td>109-155 Operation and Maintenance of Leisure Resources</td>
<td>3</td>
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<tr>
<td>809-197 Contemporary American Society</td>
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Second Semester

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<td>109-170 Interpreting the Leisure Environment</td>
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<td>109-190 Recreation Seminar</td>
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Small Business Operations

One-Year Diploma

This program represents a concentrated one-year curriculum which has been developed for individuals seeking a career in small business. Attention will focus on business planning to optimize return on investment based on resources and business opportunity.

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<td>104-300 Small Business Development and Planning</td>
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<td>104-302 Fundamentals of Marketing</td>
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<td>104-310 Fundamentals of Sales</td>
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<td>801-351 Communications I</td>
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<td>104-318 Field Experience</td>
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<td>104-320 Leadership Techniques</td>
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<td>104-342 Retail Operation and Promotion</td>
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<tr>
<td>106-163 Micro Keyboarding</td>
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<td>809-352 Human Relations</td>
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Electives

Elective credits may be selected from associate degree or equivalent courses. Also, see elective list.
Tourist Recreation

Associate in Applied Science Degree

The Tourist Recreation associate program is designed to develop competencies in the technical, problem-solving, human relations and life skills that are needed for entry-level employment in commercial recreation and tourism. The instruction develops the recreator's ability to plan, organize, instruct, inform and evaluate activities in areas, facilities and equipment for tourist recreational participation. The program develops trained entry-level employees to work as travel directors or consultants, tourism marketers, car rental or airline reservationists, and travel agents.

FIRST YEAR

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<tbody>
<tr>
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<td>109-101 Introduction to Leisure Services</td>
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<td>109-103 Recreation and Leisure in Modern Society</td>
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SECOND YEAR

First Semester

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<td>109-106 Programming and Public Relations</td>
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<td>109-107 Recreational Safety</td>
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<td>109-120 Commercial Tourist Business</td>
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<td>109-175 Recreation Internship</td>
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<td>801-197 Technical Reporting</td>
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<td>104-102 Marketing Principles</td>
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<td>104-110 Supervision Principles</td>
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<td>104-116 Management of Professional Organizations</td>
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<td>104-119 Visual Merchandising</td>
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<tr>
<td>104-141 Insurance Adjusting</td>
</tr>
<tr>
<td>104-142 Commercial Insurance</td>
</tr>
<tr>
<td>104-143 Personal Insurance</td>
</tr>
<tr>
<td>104-150 Employee Benefits</td>
</tr>
<tr>
<td>104-151 Commercial Liability Underwriting</td>
</tr>
<tr>
<td>104-160 Sales Management</td>
</tr>
<tr>
<td>104-171 Credit Management</td>
</tr>
<tr>
<td>104-175 Field Training Seminar</td>
</tr>
<tr>
<td>104-178 Menswear Retailing</td>
</tr>
<tr>
<td>104-180 International Marketing</td>
</tr>
<tr>
<td>104-185 Marketing Topics and Trends</td>
</tr>
<tr>
<td>104-306 Merchandise Display</td>
</tr>
<tr>
<td>104-342 Retail Operation and Promotion</td>
</tr>
<tr>
<td>105-102 Principles of Data Processing</td>
</tr>
<tr>
<td>106-131 Typewriting I</td>
</tr>
<tr>
<td>109-128 Hospitality Management</td>
</tr>
<tr>
<td>109-130 Tourist Marketing</td>
</tr>
<tr>
<td>109-131 Front Office Management</td>
</tr>
<tr>
<td>109-133 Beverage Merchandising</td>
</tr>
<tr>
<td>109-138 Lodging Environments</td>
</tr>
<tr>
<td>109-165 Travel Agency Services</td>
</tr>
<tr>
<td>109-166 Travel Agency Training</td>
</tr>
<tr>
<td>109-167 World Travel Geography</td>
</tr>
<tr>
<td>109-168 Travel Agency Operations</td>
</tr>
<tr>
<td>194-175 Real Estate Investment</td>
</tr>
<tr>
<td>194-180 Principles of Real Estate</td>
</tr>
<tr>
<td>194-182 Real Estate Law</td>
</tr>
<tr>
<td>194-184 Real Estate Finance</td>
</tr>
<tr>
<td>194-185 Real Estate Marketing</td>
</tr>
<tr>
<td>194-186 Real Estate Appraisal I</td>
</tr>
<tr>
<td>194-187 Real Estate Appraisal II</td>
</tr>
<tr>
<td>194-188 Real Estate Planning and Construction</td>
</tr>
<tr>
<td>194-190 Property Management and Development</td>
</tr>
<tr>
<td>196-100 Principles of Supervision</td>
</tr>
<tr>
<td>301-171 Textiles</td>
</tr>
<tr>
<td>802-000 Foreign Language</td>
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<tr>
<td>810-101 Speech</td>
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<table>
<thead>
<tr>
<th>Elective</th>
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</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
</tr>
</tbody>
</table>
Our society continues to become more complex, increasing the need for those trained in public safety. MATC’s Public Safety programs prepare students to deal with changing social, environmental and human needs.

Emergency Medical Services Specialist

Less Than One-Year Diploma

The EMS specialist masters a wide range of complex and challenging skills to aid persons in crisis. The EMS specialist must often work under extreme pressures of time and emotional/physical stress. He/she will need to make assessments of ill/injured persons, initiate treatment, communicate medical information, transport patients and complete medical reports. Interaction skills with patients are essential to this profession. In addition, the EMS specialist needs to learn safe driving skills for transport of patients, rescue techniques for special situations when unaided by fire or other rescue services, EMS management techniques and interpersonal communication skills. The student is also given an opportunity for clinical experience in hospitals and field training in current ambulance services.

EMS is a helping, people-oriented profession serving humans in time of need. The rewards of such a profession can be very great.

The Public Safety Division is currently reviewing and analyzing the prospects of offering a diploma and/or associate of arts degree in paramedicine. Potential students in the EMS Specialist program may want to investigate the status of that review in choosing a program path or track.

<table>
<thead>
<tr>
<th>Number</th>
<th>Course Name</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>531-330</td>
<td>Emergency Medical Technician-Basic</td>
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<tr>
<td>531-332</td>
<td>EMS Vehicle Operation</td>
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<tr>
<td>531-334</td>
<td>EMS Rescue Techniques</td>
<td>1</td>
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<tr>
<td>531-336</td>
<td>EMS Systems Management</td>
<td>1</td>
</tr>
<tr>
<td>531-338</td>
<td>EMS Personal Communications</td>
<td>1</td>
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</tbody>
</table>

Fire Protection Technician

Associate in Applied Science Degree

The constant changes and growing complexities of modern living and the environment are creating a demand for college-trained people in the fire service field. Opportunities for graduates exist with municipal fire departments, insurance and government agencies and in the field of industrial safety. This program of study is designed to meet the needs of personnel currently employed in fire service positions and those desiring preparation for employment. The Fire Protection Technician program has undergone some review, and some modifications to the curriculum may take place after the publication of this catalog, so potential students should contact the Public Safety Services Department chairperson regarding the status of the program requirements prior to enrollment.

FIRST YEAR

First Semester

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>503-112 Fire Prevention</td>
<td>3</td>
</tr>
<tr>
<td>503-134 Introduction to Fire Organization</td>
<td>2</td>
</tr>
<tr>
<td>801-151 Communication Skills I</td>
<td>3</td>
</tr>
<tr>
<td>804-141 Industrial Mathematics I</td>
<td>4</td>
</tr>
<tr>
<td>806-141 Technical Science I</td>
<td>3</td>
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Second Semester

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Credits</th>
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<tbody>
<tr>
<td>503-108 Building Construction and Design</td>
<td>3</td>
</tr>
<tr>
<td>503-123 First Responder</td>
<td>3</td>
</tr>
<tr>
<td>503-131 Principles of Fire Control</td>
<td>2</td>
</tr>
<tr>
<td>804-142 Industrial Mathematics II</td>
<td>4</td>
</tr>
<tr>
<td>806-142 Technical Science II</td>
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<tr>
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SECOND YEAR

First Semester

<table>
<thead>
<tr>
<th>Course Name</th>
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<tbody>
<tr>
<td>503-105 Chemistry of Hazardous Materials I</td>
<td>3</td>
</tr>
<tr>
<td>503-110 Fire Hazards and Causes</td>
<td>3</td>
</tr>
<tr>
<td>503-114 Fire Protection Systems</td>
<td>3</td>
</tr>
<tr>
<td>503-150 Standards and Loss Control</td>
<td>3</td>
</tr>
<tr>
<td>809-199 Psychology of Human Relations</td>
<td>3</td>
</tr>
<tr>
<td>Elective</td>
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Second Semester

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>503-145 Water Supply Hydraulics</td>
<td>3</td>
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<tr>
<td>503-153 Strategic Operation and Disaster Planning</td>
<td>3</td>
</tr>
<tr>
<td>503-160 Hazards of Industrial Processes</td>
<td>3</td>
</tr>
<tr>
<td>801-197 Technical Report Writing</td>
<td>3</td>
</tr>
<tr>
<td>809-197 Contemporary American Society</td>
<td>3</td>
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ELECTIVES

<table>
<thead>
<tr>
<th>Course Name</th>
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<tbody>
<tr>
<td>503-106 Chemistry of Hazardous Materials II</td>
<td>2</td>
</tr>
<tr>
<td>503-120 Equipment and Apparatus</td>
<td>2</td>
</tr>
<tr>
<td>503-125 Fire Suppression</td>
<td>3</td>
</tr>
</tbody>
</table>
The Police Science program provides the student with an educational background that explores the social, economic and civic responsibilities which are necessary to basic police work. The preservation of law and order is an absolute essential in the healthy growth of any nation. The American community is undergoing rapid growth as well as rapid social and economic change, and this makes the law enforcement career an increasingly complex one.

Graduates of this program find job placement opportunities as uniformed officers or civilians employed in police departments on local, county, state or federal levels. They may find opportunities with railroads, department stores, airlines, private and public security agencies, insurance companies and other related private and public sector agencies and organizations as investigators or special police.

### FIRST YEAR

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>504-101</td>
<td>Introduction to Law Enforcement</td>
<td>3</td>
</tr>
<tr>
<td>504-111</td>
<td>Criminal Justice Administration</td>
<td>3</td>
</tr>
<tr>
<td>504-135</td>
<td>Juvenile Procedures I</td>
<td>3</td>
</tr>
<tr>
<td>801-151</td>
<td>Communication Skills I</td>
<td>3</td>
</tr>
<tr>
<td>809-199</td>
<td>Psychology of Human Relations</td>
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</tr>
</tbody>
</table>

### Second Semester

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>504-136</td>
<td>Juvenile Procedures II</td>
<td>3</td>
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<tr>
<td>801-152</td>
<td>Communication Skills II</td>
<td>3</td>
</tr>
<tr>
<td>809-195</td>
<td>Economics</td>
<td>3</td>
</tr>
<tr>
<td>809-197</td>
<td>Contemporary American Society</td>
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### SECOND YEAR

<table>
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<tr>
<td>504-115</td>
<td>Criminal Evidence</td>
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<tr>
<td>504-123</td>
<td>Criminal Investigation</td>
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<tr>
<td>504-141</td>
<td>Technical Report Writing</td>
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<td>504-150</td>
<td>First Responder</td>
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<tr>
<td>807-150</td>
<td>Physical Education</td>
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### Electives (with approval of chairperson)

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<tr>
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<td>504-137</td>
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<tr>
<td>504-145</td>
<td>Investigative Photography</td>
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</tr>
<tr>
<td>504-146</td>
<td>Forensic Photography</td>
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</tr>
<tr>
<td>504-154</td>
<td>Advanced Criminal Investigation</td>
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</tr>
<tr>
<td>504-180</td>
<td>Practical Police Problems I</td>
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</tr>
<tr>
<td>504-181</td>
<td>Practical Police Problems II</td>
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<tr>
<td>809-127</td>
<td>Human Development</td>
<td>3</td>
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<tr>
<td>809-202</td>
<td>Social Disorganization</td>
<td>3</td>
</tr>
<tr>
<td>809-203</td>
<td>Introduction to Sociology</td>
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</tr>
<tr>
<td>809-207</td>
<td>Criminology</td>
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<tr>
<td>809-222</td>
<td>State and Local Government</td>
<td>3</td>
</tr>
<tr>
<td>809-231</td>
<td>Introduction to Psychology</td>
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<tr>
<td>809-235</td>
<td>Psychology of Personal Adjustment</td>
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</tbody>
</table>
Technical and Industrial Division
The Department of Labor estimates that in ten years, 85 percent of all jobs will require technical training beyond high school. Already, many industries in Wisconsin have more openings for skilled workers than they can fill. MATC's Technical and Industrial Division offers programs in a variety of skilled trades and technical fields. Students learn on the latest equipment and hit the ground running.

Architectural Technician
Auto Body
Auto Body Servicing
Automotive Technician
Automotive Technician
Barber/Cosmetologist
Civil Engineering Technology
Diesel and Heavy Equipment
Mechanics
Drafting-Architectural
Electronic Servicing
Electronics
Industrial Maintenance
Industrial Welding Technician
Machine Tooling Technician
Marine, Motorcycle and Outdoor
Power Equipment
Mechanical Design Technician
Welding
Wood Technics

Architectural Technician
Associate in Applied Science Degree

The architectural area is broad and challenging. It is the purpose of the architect and/or consulting engineer to supply owners with a set of plans and specifications of the structure desired. The architectural technician assists the architect or engineer in the development of plans and specifications and checks on building erections and alterations. The ASSET assessment test is recommended prior to program acceptance.

FIRST YEAR

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>614-111</td>
<td>Architectural Theory and Drafting I</td>
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<tr>
<td>614-121</td>
<td>Construction Materials I</td>
<td>3</td>
</tr>
<tr>
<td>801-151</td>
<td>Communication Skills I</td>
<td>3</td>
</tr>
<tr>
<td>804-151</td>
<td>Technical Mathematics I</td>
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<tr>
<td>806-151</td>
<td>Technical Science I</td>
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SECOND YEAR

<table>
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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>614-112</td>
<td>Architectural Theory and Drafting II</td>
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<tr>
<td>614-118</td>
<td>Architectural Rendering</td>
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<tr>
<td>804-152</td>
<td>Technical Mathematics II</td>
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<tr>
<td>806-152</td>
<td>Technical Science II</td>
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<tr>
<td>809-199</td>
<td>Psychology of Human Relations</td>
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<tr>
<td>809-197</td>
<td>Contemporary American Society</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>18</td>
</tr>
</tbody>
</table>

REQUIREMENTS FOR GRADUATION

70 credits with a GPA of 2.0 (C) or above. Average of 2.0 (C) or above for occupational specific courses.

Notes for all Technical and Industrial Division programs

- Safety procedures are required in all labs.
- Prerequisites can be waived with divisional approval.
- Advanced standing may be gained through divisional dean's approval.
- Certain associate degree or higher post secondary courses specific to the curriculum may substitute for courses upon approval of division deans.
Two-Year Diploma

The Auto Body program provides the knowledge and skill necessary to perform well in the area of vehicle body and unibody repair. This includes the unfolding of metal damage and restoration to the original contours. A high degree of skill is attained by the student in welding, metal forming, alignment procedures and refinishing.

**FIRST YEAR**

**First Semester**
- 404-330 Collision Repair/Refinishing I
- 404-361 Collision Repair/Refinishing Theory I
- 804-379 Mathematics II
- 809-356 Human Relations Survey

**Second Semester**
- 404-331 Collision Repair/Refinishing II
- 404-360 Auto Body Accessories
- 404-363 Collision Repair/Refinishing Theory II
- 801-356 Communications I

**SECOND YEAR**

**First Semester**
- 404-332 Basic Unibody Collision Repair/Advanced Refinishing
- 404-365 Unibody Collision Repair Theory
- 806-363 Science I

**Second Semester**
- 404-333 Advanced Unibody Collision Repair
- 404-334 Collision Damage Report Writing
- 404-373 Collision Repair Occupational Orientation

**REQUIREMENTS FOR GRADUATION**

61 credits with a GPA of 2.0 (C) or above. Average of 2.0 (C) or above for occupational specific courses.

### Automotive Technician

Two-Year Diploma

Opportunities for qualified, trained technicians continue to increase. This program is designed to provide students with skills necessary to enter or advance in many automotive industry positions. The technology, diagnosis and repair of automotive and light truck electrical, mechanical and hydraulic systems are studied. Considerable time is spent developing hands-on skills that are used on the job. Skills learned in the program are valuable to individuals choosing to enter professions other than automotive technician.

**FIRST YEAR**

**First Semester**
- 404-335 Engine Performance
- 404-340 Minor Repair
- 420-330 Metal Processes I
- 804-379 Mathematics II
- 809-356 Human Relations Survey

**Second Semester**
- 404-318 Heating and Air Conditioning
- 404-339 Brakes and Steering
- 404-341 Suspension and Alignment
- 420-331 Metals Processes II

**SECOND YEAR**

**First Semester**
- 404-316 Accessories
- 404-355 Automatic Transmissions
- 404-356 Power Train
- 896-363 Science for Mechanics

**Second Semester**
- 404-336 Engine Rebuilding
- 404-357 Auto Electrical Systems
- 404-366 Auto Electronics
- 404-373 Auto Industrial Orientation

**REQUIREMENTS FOR GRADUATION**

62 credits with a GPA of 2.0 (C) or above. Average of 2.0 (C) or above for occupational specific courses.

**NOTE:** All courses with 404 prefix meet for 9 weeks.
Automotive Technology

Associate in Applied Science Degree

Employment opportunities for the automotive technician include all aspects of automotive sales and service businesses. In the automotive service business, technicians and service writers are needed. With proper background and experience, advancement to shop foreman, service manager and other highly responsible positions is possible. Other employment opportunities include working in manufacturing as an engineering aide or as a sales representative for manufacturers of automotive tools and equipment, or operating your own auto repair business. The ASSET assessment test is recommended prior to program acceptance.

FIRST YEAR
First Semester
- 602-102 Service Repair Procedures 4
- 602-156 Comfort Control Systems 2
- 602-166 Driveability and Fuel Systems 4
- 804-141 Industrial Mathematics I 4
- 801-151 Communication Skills 3

Second Semester
- 602-157 Technical Brakisteering Systems 3
- 602-163 Vehicle Suspension and Alignment 3
- 804-142 Industrial Mathematics II 4
- 806-141 Technical Science I-S 3
- 809-195 Economics 3

SECOND YEAR
First Semester
- 602-153 Power Transmission Systems 3
- 602-154 Fluid Power Transmission 3
- 806-142 Technical Science II-S 4
- 809-199 Psychology of Human Relations 3
- 809-197 Contemporary American Society 3

Second Semester
- 602-150 Internal Combustion Engines 4
- 602-152 Computerized Engine Controls 4
- 602-158 Service Management 3
- 801-197 Technical Reporting 3

Electives
- 602-162 Accessories 2
- 602-175 Special Problems 3
- 606-151 Industrial Hydraulics 2
- 613-100 Metallurgy Principles 2
- 804-171 Basic Computer Mathematics 2

Barber/Cosmetologist

One-Year Diploma

This three-semester (48-week) program provides training in the combination Barber/Cosmetologist program. Graduates receive training in both of the title areas and may be licensed to practice in either area.

First Semester
- 502-301 Barber/Cosmetology Techniques I 12
- 502-311 Barber/Cosmetology Theory I 3
- 502-390 Barber/Cosmetology Science I 2
- 801-351 Communications I 2

Second Semester
- 502-302 Barber/Cosmetology Techniques II 12
- 502-312 Barber/Cosmetology Theory II 3
- 502-391 Barber/Cosmetology Science II 2
- 502-392 Barber/Cosmetology Sales and Advertising 1
- 809-356 Human Relations Survey 1

Ten-Week Summer Session
- 502-303 Barber/Cosmetology Techniques III 8
- 502-313 Barber/Cosmetology Theory III 5

REQUIREMENTS FOR GRADUATION
51 credits with a GPA of 2.0 (C) or above. Average of 2.0 (C) or above for occupational specific courses.

Civil Engineering Technology

(Public Works Technician)

Associate in Applied Science Degree

This program trains technicians to assist civil engineers in planning, scheduling, designing, estimating, surveying and inspecting the construction of highways, bridges, buildings and other structures.

FIRST YEAR
First Semester
- 607-147 Basic Civil Drafting 3
- 607-155 Introduction to Surveying 4
- 614-124 Industrial Computer Applications 1
- 801-151 Communication Skills I 3
- 804-151 Technical Mathematics I 4
- 809-199 Psychology of Human Relations 2

REQUIREMENTS FOR GRADUATION
69 credits with a GPA of 2.0 (C) or above. Average of 2.0 (C) or above for occupational specific courses.

NOTE: All courses with 602 prefix meet for 9 weeks.
Technical and Industrial

Second Semester
607-156 Route Surveying 4
607-181 Field Inspection and Materials Testing 3
804-152 Technical Mathematics II 3
806-151 Technical Science I 3
809-197 Contemporary American Society 3

SECOND YEAR
First Semester
607-158 Advanced Surveying 3
607-178 Mechanics 3
607-193 Introduction to CAD-2D 2
806-152 Technical Science II 4
809-195 Economics 3
Elective 2

Second Semester
607-133 Civil Engineering Estimating 2
607-140 Strength of Materials 3
607-171 Structural Detailing 3
607-193 Job Orientation 1
801-197 Technical Reporting 3
Electives 4-5

ELECTIVES
607-176 Water Supply and Sewage 2
607-177 Legal Elements of Engineering Technology 3
607-190 Special Problems—Civil 2
614-125 Computer-Aided Drafting 2
804-171 Basic Computer Mathematics 2

Students may wish to consider taking the two MATC courses listed below in addition to the 68-69 credit Civil Engineering Technology program, since doing so would meet the current educational requirement for land surveyors as stated in Chapter A-E 6 of the Wisconsin Administrative Code.

607-158 Legal Elements of Land Surveying 3
607-175 Boundary Location 3

Requirements for Graduation
68-69 credits with a GPA of 2.0 (C) or above. Average of 2.0 (C) or above for occupational specific courses.

Diesel and Heavy Equipment Mechanics

Two-Year Diploma

This program provides the student with the knowledge and skills necessary for job success in the ever-expanding heavy equipment areas. These areas include on- and off-the-highway trucking, earth-moving equipment and construction equipment.

FIRST YEAR
First Semester
412-368 Diesel Chassis Units 5
412-369 Diesel Electrical Systems 5
420-330 Metals Processes I 2
421-394 Drawing Interpretation 1
801-356 Communications I 1
804-379 Mathematics II 1

Second Semester
412-338 Diesel Equipment Maintenance 1
412-372 Transmission and Driveline 10
420-331 Metals Processes II 2
804-380 Mathematics III 1
806-363 Science I 2

SECOND YEAR
First Semester
412-325 Air Conditioning and Refrigeration 2
412-373 Diesel Engines 10
419-312 Mobile Hydraulics 3
809-356 Human Relations Survey 1

Second Semester
412-324 Accessories—Diesel 2
412-326 Refrigeration Systems—Diesel 2
412-337 Diesel Shop Operations 1
412-375 Diesel Fuel Systems I 5
412-376 Diesel Fuel Systems II 5

Requirements for Graduation
62 credits with a GPA of 2.0 (C) or above. Average of 2.0 (C) or above for occupational specific courses.

Notes for all Technical and Industrial Division programs
- Safety procedures are required in all labs.
- Prerequisites can be waived with divisional approval.
- Advanced standing may be gained through divisional exams.
- Certain associate degree or higher post secondary courses specific to the curriculum may substitute for courses upon approval of divisional dean.
Drafting-Architectural

One-Year Diploma

This program provides the student with the necessary background in drawing skills and construction materials to fulfill the job entry requirements for a wide range of duties in contractors' offices, building supply companies, manufacturers of building materials and regulatory agencies.

**First Semester**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>403-303</td>
<td>Construction Drawing I</td>
<td>5</td>
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<tr>
<td>403-316</td>
<td>Building Construction I</td>
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<tr>
<td>403-330</td>
<td>Mechanical Systems I</td>
<td>2</td>
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<tr>
<td>801-356</td>
<td>Communications I</td>
<td>1</td>
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<td>804-379</td>
<td>Mathematics II</td>
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<tr>
<td>806-363</td>
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**Second Semester**

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<tr>
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<th>Course Title</th>
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<tbody>
<tr>
<td>403-302</td>
<td>Architectural Drawing</td>
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<tr>
<td>403-308</td>
<td>Codes and Regulations</td>
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<td>403-317</td>
<td>Building Construction II</td>
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<td>Mechanical Systems II</td>
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<tr>
<td>804-380</td>
<td>Mathematics III</td>
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<tr>
<td>809-356</td>
<td>Human Relations Survey</td>
<td>1</td>
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</table>

REQUIREMENTS FOR GRADUATION

30 credits with a GPA of 2.0 (C) or above. Average of 2.0 (C) or above for occupational specific courses.

Electronics

Associate in Applied Science Degree

The electronics industry offers the technician a wide range of job opportunities in manufacturing, research and development, communications or installation and maintenance of electronic equipment. Communications and industrial electronics continue to expand at a rapid rate, and the position of technician or engineering assistant within the industry is one of the fastest-growing occupational classifications. The ASSET assessment test is recommended prior to program acceptance.

**First Semester**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>605-112</td>
<td>DC Fundamentals</td>
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<tr>
<td>605-113</td>
<td>Analog Solid State Devices-DC Analysis</td>
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<tr>
<td>605-118</td>
<td>Digital Circuit Fundamentals</td>
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</tr>
<tr>
<td>605-192</td>
<td>Introduction to Electronics</td>
<td>1</td>
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<tr>
<td>801-151</td>
<td>Communication Skills</td>
<td>3</td>
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<tr>
<td>804-161</td>
<td>Electronics Mathematics I</td>
<td>5</td>
</tr>
<tr>
<td>806-151</td>
<td>Technical Science I</td>
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**Second Semester**

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<thead>
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<th>Course Title</th>
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<td>605-114</td>
<td>AC Fundamentals</td>
<td>3</td>
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<tr>
<td>605-115</td>
<td>Analog Solid State Devices-AC Analysis</td>
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</tr>
<tr>
<td>605-119</td>
<td>Digital Circuits</td>
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<tr>
<td>804-162</td>
<td>Electronics Mathematics II</td>
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<tr>
<td>806-152</td>
<td>Technical Science II</td>
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<td>809-199</td>
<td>Psychology of Human Relations</td>
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SECOND YEAR

**First Semester**

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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>605-116</td>
<td>Analog Solid State Circuits</td>
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<tr>
<td>605-130</td>
<td>Instruments-Industrial Devices</td>
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<tr>
<td>605-173</td>
<td>Electronic Computers and Assembly Language</td>
<td>3</td>
</tr>
<tr>
<td>605-176</td>
<td>Introduction to Digital Systems</td>
<td>3</td>
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<tr>
<td>809-197</td>
<td>Contemporary American Society</td>
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**Second Semester**

<table>
<thead>
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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>605-143</td>
<td>Industrial Control Systems</td>
<td>3</td>
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<tr>
<td>605-152</td>
<td>Microprocessor and Digital Systems</td>
<td>3</td>
</tr>
<tr>
<td>801-197</td>
<td>Technical Reporting</td>
<td>3</td>
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<tr>
<td>809-195</td>
<td>Economics</td>
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ELECTIVES

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<thead>
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<tbody>
<tr>
<td>605-140</td>
<td>Electronic Calculus and Circuit Analysis</td>
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<tr>
<td>605-150</td>
<td>Electronic Data Transmission</td>
<td>3</td>
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<tr>
<td>605-151</td>
<td>Troubleshooting and Maintenance</td>
<td>3</td>
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<tr>
<td>605-174</td>
<td>Introduction to C Language</td>
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<tr>
<td>605-190</td>
<td>Special Problems-Electronics</td>
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<tr>
<td>804-231</td>
<td>Calculus I and Analytic Geometry I*</td>
<td>5</td>
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<tr>
<td>804-232</td>
<td>Calculus II and Analytic Geometry II*</td>
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</table>

REQUIREMENTS FOR GRADUATION

30 credits with a GPA of 2.0 (C) or above. Average of 2.0 (C) or above for occupational specific courses.
Industrial Maintenance

Two-Year Vocational Diploma

This job entry-level program prepares individuals for employment as industrial maintenance mechanics, repairers, adjusters and installers of independent equipment or automated systems. The educational objectives focus on electromechanical and automated manufacturing computer-controlled machines as they relate to systems operations, applications, installation and modification. Course titles and numbers are subject to change.

FIRST YEAR

First Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>403-308 General Codes</td>
<td>2</td>
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<tr>
<td>414-311 Maintenance Shop Processes</td>
<td>2</td>
</tr>
<tr>
<td>414-312 DC/AC Circuits for Maintenance</td>
<td>3</td>
</tr>
<tr>
<td>419-300 Industrial Fluid Power</td>
<td>2</td>
</tr>
<tr>
<td>420-330 Metal Processes I</td>
<td>2</td>
</tr>
<tr>
<td>421-395 Drawing Interpretation for Maintenance</td>
<td>2</td>
</tr>
<tr>
<td>804-379 Mathematics II</td>
<td>1</td>
</tr>
<tr>
<td>806-365 Science I</td>
<td>2</td>
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Second Semester

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>401-310 Heating and Air Conditioning</td>
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<tr>
<td>414-314 Semiconductor Devices for Maintenance</td>
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</tr>
<tr>
<td>419-301 Intermediate Industrial Fluid Power</td>
<td></td>
</tr>
<tr>
<td>420-331 Metal Processes II</td>
<td></td>
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<tr>
<td>462-301 Introduction to Industrial Computers</td>
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<tr>
<td>801-336 Communications I</td>
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<td>804-380 Mathematics III</td>
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<td>809-352 Human Relations</td>
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SECOND YEAR

First Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>414-315 Electronic Circuits for Maintenance</td>
<td>3</td>
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<tr>
<td>414-343 Industrial Electricity and Controls</td>
<td>3</td>
</tr>
<tr>
<td>462-303 Industrial Equipment Mechanisms</td>
<td>2</td>
</tr>
<tr>
<td>462-311 Industrial Maintenance Mechanic I</td>
<td>3</td>
</tr>
<tr>
<td>462-316 Fluid Distribution Systems</td>
<td>2</td>
</tr>
<tr>
<td>462-333 Business Operations</td>
<td>2</td>
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<tr>
<td>804-381 Mathematics IV</td>
<td>1</td>
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Second Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>414-321 Interfacing Sensors with Computer Controls</td>
<td>3</td>
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<tr>
<td>443-303 Building Service Maintenance</td>
<td>3</td>
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<tr>
<td>462-312 Industrial Maintenance Mechanic II</td>
<td>3</td>
</tr>
<tr>
<td>462-314 Manufacturing Systems, Application and Control</td>
<td>3</td>
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<tr>
<td>462-334 Building Management Systems</td>
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REQUIREMENTS FOR GRADUATION

62 credits with a GPA of 2.0 (C) or above. Average of 2.0 (C) or above for specific occupational courses.
TECHNICAL AND INDUSTRIAL

Industrial Welding

Technician

Associate in Applied Science Degree

The Industrial Welding Technology curriculum is designed to provide the student with knowledge in the manual, semi-automatic and automatic welding processes in metal fabrication and construction industries. The curriculum provides the student with skills training for more than twenty welding processes. The students will study welding processes, codes, procedures, material analysis, testing techniques and programming computer integrated manufacturing systems. Graduates may seek specialized employment of their choice, which may include production planning, welding technician, inspection, product control, supervision, training, or other careers.

FIRST YEAR

First Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>621-105</td>
<td>Fundamentals of Arc</td>
<td>3</td>
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<tr>
<td>621-110</td>
<td>Shielded Metal Arc</td>
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<tr>
<td>621-115</td>
<td>Gas Welding Techniques</td>
<td>2</td>
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<tr>
<td>801-151</td>
<td>Communication Skills</td>
<td>3</td>
</tr>
<tr>
<td>804-151</td>
<td>Technical Mathematics I</td>
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Second Semester

<table>
<thead>
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<th>Course Title</th>
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<tbody>
<tr>
<td>621-120</td>
<td>Gas Shielding Process Techniques</td>
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<td>Technical Mathematics II</td>
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<td>806-151</td>
<td>Technical Science I</td>
<td>3</td>
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<td>809-199</td>
<td>Psychology of Human Relations</td>
<td>3</td>
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Second Year

First Semester

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<tbody>
<tr>
<td>621-125</td>
<td>Machine Tool I</td>
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<td>420-380</td>
<td>Machine Tool I</td>
<td>8</td>
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<tr>
<td>421-395</td>
<td>Drawing Interpretation I</td>
<td>2</td>
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<tr>
<td>804-379</td>
<td>Mathematics II AND</td>
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<td>804-380</td>
<td>Mathematics III</td>
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ELECTIVES

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<tr>
<td>614-148</td>
<td>Steel Detailing</td>
<td>3</td>
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<tr>
<td>804-171</td>
<td>Basic Computer</td>
<td>2</td>
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<tr>
<td>621-475</td>
<td>Special Problems</td>
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<tr>
<td>621-145</td>
<td>Metal Working Techniques</td>
<td>2</td>
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REQUIREMENTS FOR GRADUATION

69 credits with a GPA of 2.0 (C) or above. Average of 2.0 (C) or above for occupational specific courses.

Machine Tooling Technician

Two-Year Diploma

The Machine Tooling program provides the student with the knowledge and skills necessary to plan and carry to completion a machined product. The student learns to work from blueprints, specifications and shop drawings; select materials to produce each part; set up the operational procedure; produce the part to the dimensions required; and verify conformance of machined workpiece to specifications using instruments such as micrometer gauges and gauge clocks. The ASSET assessment test is required prior to registration.

FIRST YEAR

First Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>420-351</td>
<td>Layout and Inspection</td>
<td>1</td>
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<tr>
<td>420-353</td>
<td>Tool and Parts Inspection</td>
<td>1</td>
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<tr>
<td>420-380</td>
<td>Machine Tool I</td>
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</tr>
<tr>
<td>421-395</td>
<td>Drawing Interpretation I</td>
<td>2</td>
</tr>
<tr>
<td>801-356</td>
<td>Communications I</td>
<td>1</td>
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<tr>
<td>804-379</td>
<td>Mathematics II AND</td>
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<td>804-380</td>
<td>Mathematics III</td>
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Second Semester

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<th>Course Title</th>
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<tr>
<td>420-304</td>
<td>Advanced Inspection</td>
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<td>420-381</td>
<td>Machine Tool II</td>
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<tr>
<td>420-388</td>
<td>Tool and Fixture Design</td>
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<tr>
<td>420-397</td>
<td>Numerical Control</td>
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<td>804-381</td>
<td>Mathematics IV</td>
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<td>Human Relations Survey</td>
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SECOND YEAR

First Semester

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<tbody>
<tr>
<td>420-382</td>
<td>Machine Tool III</td>
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<td>420-399</td>
<td>Computer Numerical Control</td>
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<tr>
<td>422-390</td>
<td>Fundamentals of Metallurgy</td>
<td>2</td>
</tr>
<tr>
<td>806-363</td>
<td>Science I</td>
<td>2</td>
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</table>

Notes for all Technical and Industrial Division programs

- Safety procedures are required in all labs.
- Prerequisites can be waived with divisional approval.
- Advanced standing may be gained through divisional grades.
- Certain associate degree or higher post secondary courses specific to the curriculum may substitute for courses upon approval of division deans.
### Second Semester

<table>
<thead>
<tr>
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<th>Course Name</th>
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<tbody>
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<td>Industrial Hydraulics</td>
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<td>420-383</td>
<td>Machine Tool IV</td>
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<td>420-393</td>
<td>Job Orientation</td>
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<tr>
<td>420-398</td>
<td>Special Problems–Machine Tool</td>
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<td>442-313</td>
<td>Related Welding</td>
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**REQUIREMENTS FOR GRADUATION**

62 credits with a GPA of 2.0 (C) or above. Average of 2.0 (C) or above for occupational specific courses.

### First Semester

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<thead>
<tr>
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<th>Course Name</th>
<th>Credits</th>
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<tbody>
<tr>
<td>420-330</td>
<td>Metal Processes I</td>
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</tr>
<tr>
<td>461-322</td>
<td>Small Engine Repair I</td>
<td>10</td>
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<tr>
<td>461-370</td>
<td>Service Shop Management</td>
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</tr>
<tr>
<td>804-379</td>
<td>Mathematics II</td>
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### Second Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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<tbody>
<tr>
<td>420-331</td>
<td>Metal Processes II</td>
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</tr>
<tr>
<td>461-323</td>
<td>Power Equipment Repair</td>
<td>10</td>
</tr>
<tr>
<td>461-328</td>
<td>Small Engine Lab</td>
<td>2</td>
</tr>
<tr>
<td>801-356</td>
<td>Communications I</td>
<td>1</td>
</tr>
<tr>
<td>809-356</td>
<td>Human Relations Survey</td>
<td>16</td>
</tr>
</tbody>
</table>

**REQUIREMENTS FOR GRADUATION**

31 credits with a GPA of 2.0 (C) or above. Average of 2.0 (C) or above for occupational specific courses.

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**Marine, Motorcycle and Outdoor Power Equipment**

**One-Year Diploma**

This program prepares the student for employment in areas such as motorcycle, outboard motor, construction equipment, lawn and garden equipment, chain saw and snowmobile repair. Detailed instruction in the principles of operation, maintenance and repair of internal combustion engines and the equipment they power is provided.
Mechanical Design Technician

Associate in Applied Science Degree

The Mechanical Design curriculum is based on manufacturing and design of mechanical products or the machines, tools and equipment used in fabrication or assembly. Students acquire extensive skills using computers as a design tool. The increased use of automation in all industries has triggered a constantly rising demand for trained people in this field. The ASSET assessment test required prior to program acceptance.

FIRST YEAR
First Semester
606-100 Introduction to Mechanical Graphics 3
606-160 Manufacturing Processes 3
801-151 Communication Skills 3
804-151 Technical Mathematics I 4
806-151 Technical Science I 3

SECOND SEMESTER
606-102 Intermediate Mechanical Graphics 3
606-120 Introduction to Computer Aided Drafting (MDT) 2
606-153 Statics and Mechanics 3
621-126 Manufacturing Materials Processing 2
806-152 Technical Mathematics II 3
806-152 Technical Science II 4

SECOND YEAR
First Semester
606-132 Advanced CADD (MDT) 2
606-104 Advanced Mechanical Graphics 3
605-170 Strength of Materials 3
606-110 Descriptive Geometry 3
809-195 Economics 3
809-197 Contemporary American Society 3
Elective 2-3

Second Semester
606-106 Applied Mechanical Graphics 3
606-112 Tool Design 2
606-116 Machine Design 3
606-193 Job Orientation 1
801-197 Technical Reporting 3
809-199 Psychology of Human Relations 3
Electives 2-3

Electives
605-151 Industrial Hydraulics 2
606-182 Manufacturing Costs/Product Analysis 3
606-186 Product Development 3
613-100 Principles of Metallurgy 2
804-171 Basic Computer Mathematics 2

Requirements for Graduation
72 credits with a GPA of 2.0 (C) or above. Average of 2.0 (C) or above for occupational specific courses.

Welding

One-Year Diploma

This program provides the student with the knowledge and skills needed to perform well with manual and semi-automatic welding processes. Each student develops the manipulative skills required to become a Wisconsin Qualified Structural Steel Welder and learns the techniques of layout and fabrication.

First Semester
442-312 Oxy-Fuel Processes: Welding, Brazing, Soldering and Cutting 3
442-314 Arc Welding (SMAW) Basic Theory Flat 3
442-316 Arc Welding (SMAW) Horizontal 3
442-318 Gas Tungsten-Arc Welding Processes 3
421-393 Drawing Interpretation - Welding 3
804-379 Mathematics II 1

Second Semester
442-320 Welding Occupational Development 1
442-321 Arc Welding (SMAW) Vertical 3
442-322 Advanced Welding Techniques 3
442-323 Gas Metal Arc and Flux Cored Arc Welding Processes 3
442-324 Layout and Fabrication Techniques 3
422-390 Fundamentals of Metallurgy 2

Requirements for Graduation
31 credits with a GPA of 2.0 (C) or above. Average of 2.0 (C) or above for occupational specific courses.

Notes for all Technical and Industrial Division programs

- Safety procedures are required in all labs.
- Prerequisites can be waived with divisional approval.
- Advanced standing may be gained through division deans.
- Certain associate degree or higher post secondary courses specific to the curriculum may substitute for courses upon approval of division deans.

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Wood Technics

One-Year Diploma

The Wood Technics program provides the student with the knowledge and skills required for employment in wood and wood-related occupations. The program prepares the students to use equipment and materials in wood technics occupations. As students continue to advance, they may select work in the cabinet and furniture area and/or construction and remodeling. Current industrial processes and procedures are emphasized.

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Note: The Wood Technics program has a common first semester which is scheduled to be taught in both fall and spring. The option selected is scheduled alternately so that Cabinet and Furniture Making is taught each spring and Construction and Remodeling is taught each fall.

REQUIREMENTS FOR GRADUATION
32 credits with a GPA of 2.0 (C) or above. Average of 2.0 (C) or above for occupational specific courses.
Course Index

How to read course numbers

Each course has a six-digit number. The first digit identifies the division of the college under which the course is taught. The second and third digits identify the area of instruction. The fourth digit identifies the program within which the course is being taught. The fifth and sixth digits identify the particular course.

The meaning of the fourth digit is particularly important. A fourth digit of "1" indicates a technical associate degree course; "2" indicates a college transfer course; "3" indicates a vocational diploma course; and "5" indicates an apprenticeship course.

Example: 801-152

The first digit—8—identifies the division as General Studies. The second and third digits—01—identify the area of instruction as English. The fourth digit—1—identifies the type of program as Technical Associate Degree. The fifth and sixth digits—52—identify the particular course as Communication Skills.

Example: 106-303

The first digit—1—identifies the division as Business. The second and third digits—06—identify the area of instruction as Office Technology. The fourth digit—3—identifies the type of program as Vocational Diploma. The fifth and sixth digits—03—identify the particular course as Records Management.

001 Horticulture
001-107 Horticulture-Basic
001-112 Floriculture
001-123 Flower Shop Operations-Basic

007 Biotechnology Laboratory Technician
007-100 Introduction to Biotechnology
007-103 Introduction to Basic Laboratory Techniques and Instruments
007-104 Bioseparations Techniques
007-105 Fermentation Techniques
007-106 Hazardous Materials/Radioisotopes
007-121 Applied Biochemistry
007-122 Bioseparations Module I: Protein Purification
007-123 Cell Culling
007-124 Cloning Techniques
007-125 Bioseparations Module II: Nucleic Acids
007-126 Occupational Work Experience
007-174 General and Applied Microbiology

070 Agriculture Mechanics
070-301 Agricultural Implements Related—Tillage
070-302 Agricultural Implements Lab—Tillage
070-303 Agricultural Implements Related—Harvesting
070-304 Agricultural Implements Lab—Harvesting
070-305 Ag Equipment Accessories

090 Farm Business Production and Management
090-380 Agridevelopment
090-381 Operating the Farm Business
090-382 Soils Management
090-383 Crop Management
090-384 Livestock Management
090-385 Livestock Management
090-386 Farm Records and Business Analysis
090-387 Farm Business Management—Update

090 Farm Business Production and Management (Sheep Production)
090-381 Operating the Farm Business—Sheep Production
090-382 Soils Management—Sheep Production
090-383 Crop Management—Sheep Production
090-384 Livestock Nutrition—Sheep Production
090-385 Livestock Management—Sheep Production
090-386 Farm Records and Business Analysis—Sheep Production
090-387 Sheep Production—Update

091 Veterinary Technician
091-113 Animal Nutrition (Elective)
091-115 Zoosanitaries
091-116 Introduction to Microbiology
091-120 Laboratory Techniques
091-121 Laboratory Techniques II
091-123 Introduction to Laboratory Animal Science
091-125 Veterinary Office Management
091-126 Veterinary Operating Room Techniques
091-130 Animal Restraint (Elective)
091-140 Animal Anatomy and Physiology
091-151 Clinical and Hospital Techniques
091-155 Hospital Supply and Medicants
091-156 Internship
091-170 Veterinary Medical Terminology/Occupational Preparation
091-171 Animal Care and Management I
091-172 Animal Care and Management II

091 Laboratory Animal Technician
091-115 Zoosanitaries
091-123 Introduction to Laboratory Animal Science
091-140 Animal Anatomy and Physiology
091-170 Veterinary Medical Terminology/Occupational Preparation
091-171 Animal Care and Management I
091-172 Animal Care and Management II
091-173 Facility Management Techniques
091-174 Laboratory Procedures
091-175 Infectious Diseases
091-176 Animal Nursing Procedures
091-177 Animal Anatomy and Physiology II
091-178 Issues in Laboratory Animal Science
091-179 Laboratory Animal Science II
091-180 Research Animal Surgical Nursing

091 Dairy Herd Management
091-301 Dairy Business Management
091-302 Dairy Cattle Management
091-303 Milk Production
091-304 Dairy Cattle Industry
091-305 Dairy Housing and Equipment
091-325 Dairy Cattle Feeding
091-326 Dairy Feeding and Management
091-350 Dairy Laboratory II
091-351 Dairy Laboratory II
091-360 Extended Laboratory I
091-361 Extended Laboratory II
091-375 Dairy Cattle Breeding
091-376 Artificial Insemination
091-380 Applied Agricultural Mathematics

095 Taxidermy
095-301 Basic Taxidermy
095-302 Taxidermy—Fish
095-304 Taxidermy—Upland Birds
095-306 Taxidermy—Small Mammals
095-308 Taxidermy—Gamecocks
095-310 Taxidermy—Large Mammals and Rug-Making
095-312 Taxidermy—Fish Painting and Novelties
095-314 Taxidermy—Waterfowl/Ducks

101 Accounting
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101-121 Accounting III—Intermediate
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101-123 Tax I
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101-312 Sale Proprietary Accounting
101-315 Partnership and Corporation Accounting
101-330 Related Accounting
101-335 Payroll Accounting—Income Tax

102 Business Administration
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102-105 Math of Finance
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102-117 Money and Banking
102-118 Introduction to Health Care Systems
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Course descriptions

007 Biotechnology Laboratory Technician

007-103 Introduction to Basic Laboratory Techniques and Instruments 3 credits
This course introduces the student to basic laboratory techniques such as solution preparation and the "how-to's" for instruments such as pH meters, balances, power supplies and spectrophotometers. Students are introduced to the electronics necessary for the performance of these instruments applied to biotechnology. Students also learn to perform simple maintenance and troubleshooting on instruments.

007-104 Bioseparation Techniques 2 credits
This course introduces the student to the techniques used to isolate and separate molecules in biotechnology industries. Techniques included in this course are: electrophoresis, liquid chromatography, high performance liquid chromatography, centrifugation, gas chromatography.

007-105 Fermentation Technology 3 credits
This course covers the basic techniques of fermentation technology, including the principles and application of techniques for the isolation, identification, improvement, preservation and growth of industrially important micro-organisms. Emphasis is placed on the use of industrial fermentation equipment to obtain various types of products.

007-106 Hazardous Materials/Radioisotopes 3 credits
This course alerts students to safe procedures and potential hazards associated with handling chemicals, laboratory animals, cell cultures, viruses, bacteria and other organisms, including organisms which have been modified by genetic engineering. The course covers procedures for decontamination and disposal of hazardous materials in both normal and accidental situations. Students become aware of the regulations and the agencies regulating the materials. The course also introduces the practical applications and uses of radioisotopes in the biotechnology laboratory. Students learn how to handle, monitor, detect and quantify isotopically-labelled materials.

007-121 Applied Biochemistry 3 credits
This course is an introduction to the 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. Prerequisites: 806-111 and 806-112 Chemistry I and II, or equivalent, and 806-104 General Cell Biology, or equivalent.

007-122 Bioseparations Module II: Protein Purification 3 credits
This course covers aspects of protein purification, including principles and methods for extracting cells and making cell extracts, separating proteins by selective precipitation, applying various purification techniques such as chromatography, electrophoresis and centrifugation and maintaining and assaying enzyme activity. Upon completion of the course, the student should know how to purify proteins from various sources.

007-123 Cell Culturing 3 credits
This course covers the basic techniques of plant and animal cell culture. The plant unit includes media preparation, isolation of explants and establishment of callus and suspension cultures, growth factor bioassays, regeneration of whole plants from tissue, another culture to obtain haploid plants, preparation and fusion of plant protoplasts, embryo culture and plant genetic engineering techniques. The animal unit includes media preparation of primary cultures, maintenance of cell lines, measurements of cell viability and growth, freeze preservation and thawing of cultured cells, cell cloning, cell sorting, chromosome spreading and banding, cell characterization and assays for mycoplasma contamination.

007-124 Cloning Techniques 3 credits
This course covers the techniques used to clone organisms as well as looking at the commercial applications of gene products from cloned cell lines. Also discussed are two particular topics of commercial value, monoclonal antibodies and DNA probes.

007-125 Bioseparations Module II: Nucleic Acids 3 credits
This course covers the principles and techniques for the isolation of nucleic acids from various sources. Laboratory experiments range from subcellular fractionation of nucleic acids to isolation and purification of DNA or RNA molecules, whether naturally occurring or recombinant vector molecules such as plasmids or bacteriophages. The lectures provide the conceptual framework for understanding the structure and functions of these nucleic acid molecules in living systems.

007-126 Occupational Work Experience 3 credits
Students enrolled in this course work in a biotechnology laboratory. Students are supervised by the program instructor(s). The emphasis is on the integration of academics and practical experiences toward achieving entry-level technician positions.

007-174 General and Applied Microbiology 5 credits
This course covers the structure, function, ecology, nutrition, physiology and genetics of micro-organisms as well as the isolation and use of micro-organisms used in industrial, agricultural, food and medical microbiology. The course also includes an introduction to standard techniques and procedures used in the microbiology laboratory.

070 Agriculture Mechanics

070-301 Agricultural Implements Related-Tillage 1 credit
This course provides instruction in the operation, adjustment and service of agricultural planting and tillage machines. Students learn to identify and understand the function of basic components, materials of construction, and means of repair and replacement of components. Typical machines covered in this instructional unit are: plows, harrows, rollers, sprayers and fertilizer spreaders.
070-302 Agricultural Implements Lab-Tillage 5 credits
This course is designed to provide the student with skill and knowledge to set up, adjust, inspect, service and repair tillage and planting machines. Students replace worn parts, install new bearings and adjust seed meters. Structural member repairs include heating, welding and straightening. Typical machines covered in this instructional unit are: mold board plows, soil savers, chisel plows, disk harrows, rollers, finishing harrows, corn planters, and grain drills. Students learn to utilize measuring tools and machine specifications to prepare the machines for field operation.

070-303 Agricultural Implements Related-Harvesting 1 credit
This course provides instruction in the theory of operation, adjustment and service of grain and forage harvesting machines. Students learn to identify and understand the fundamentals of the basic components, materials of construction, means of repair, and replacement of components. Typical machines covered in this unit are: combines, forage harvesters, square balers, round balers, mower conditioners, rakes, and other machines for handling grain and forage crops. Students also learn the basics of power transmission components, materials of construction, and monitoring systems used on the above machines.

070-304 Agricultural Implements Lab-Harvesting 5 credits
This course is designed to provide the student with hands-on service experience with combines and forage harvesting equipment. Students develop the skills and knowledge needed to set up, adjust, inspect, service and repair these machines. They also learn to troubleshoot and diagnose functional and mechanical failures utilizing measuring tools and machine specifications. Typical student activities include service and adjustment of the combine cylinder, forage harvester knives, blower paddles, baler knockers, mower-conditioner rolls and sicks, hay pickups, row crop heads, corn heads, and grain platforms. Other activities include servicing belts, chains, pulleys, sprockets, bearings andshafts.

070-305 Ag Equipment Accessories 2 credits
This course provides instruction in common electrical and electronic components used on agricultural equipment. The instruction emphasis is placed on the diagnosis, testing and replacement of electrical controls, warning systems, and electronic monitors. Typical machines covered are agricultural tractors, combines, forage equipment and planting equipment.

090 Farm Business Production and Management

Note: The following courses apply only to the Farm Business Production and Management Program.

090-380 Agridevelopment 1-6 credits
This is a preparatory course for the farm business production and management program that assists limited-resource and beginning farmers in recordkeeping, financial analysis and efficient management practices. This course provides basic knowledge in all aspects of farm operation, prepares students for advancement into the farm training program and analyzes performance of each farm unit so goals can be established and completed.

090-381 Operating the Farm Business 3 credits
This first-year course emphasizes the management skills and concepts necessary for students to continue farming with today's changing technology and farm business financing, It builds the foundation for the other courses in this program. Special emphasis is given to establishing and recording farm business and family goals. Students organize and maintain farm business records, and interpret and analyze the records to assist in making sound farm business management decisions. Each student's entire farming operation is assessed, and plans are developed for future needs, goals and objectives. Students evaluate goals and objectives upon completion of the course. Thirty-six hours of group instruction and twelve hours individual on-farm instruction are given in this course. Completion of this course is required before any of the following courses may be taken.

090-382 Soils Management 3 credits
This course covers the preparation and implementation of a land use plan and helps students to understand soil testing procedures and reports. Students receive instruction on making, understanding and implementing fertilizer recommendations and budgets. The application of farm manures, chemicals, soil conservation practices and the management and safe use of farm machinery and equipment are also covered. Soil management emphasizes analysis of the farm business and planning of cropping strategies to meet student needs. Thirty-six hours of group and twelve hours of individual on-farm instruction are given in this course.

090-383 Crop Management 3 credits
Group and individual instruction is provided covering all phases of crop production, management and economics. Specific topics relate to variety, selection, planning, pest control, harvesting, storing and marketing. In addition, the crop growing program is related to the total farm enterprise on a short- and long-term basis. Crop management emphasizes analysis of the farming business and planning cropping practices and strategies to meet student needs. Thirty-six hours of group and twelve hours individual on-farm instruction are provided.

090-384 Livestock Nutrition 3 credits
This course emphasizes the skills, techniques and concepts necessary for sound feeding management. It covers the determination of feed values, the economics of feed, nutritional terminology, requirements, feed consumption of livestock, breeding and understanding feeding labels for protein, energy, mineral and vitamins, evaluation of base feed and feeding programs, and metabolic disease of lactating livestock. Livestock feeding efficiency is measured by use of the farm business analysis. Not part of nutrition, but also included in this course, is a discussion of how the farm family can identify its role in the community and how they can deal with stress factors. Thirty-six hours group and twelve hours individual on-farm instruction are provided.

090-385 Livestock Management 3 credits
The livestock management course provides instruction on the various phases of selection, breeding, herd health, raising of replacement stock, and marketing livestock and livestock products. It includes the selection, operation and maintenance of milking, feeding, ventilation, manure handling, equipment and farm buildings. In addition, the livestock program is managed through use of the farm business analysis. Thirty-six hours of group and twelve hours of individual on-farm instruction are offered.

090-386 Farm Records and Business Analysis 3 credits
Instruction is provided which emphasizes the practical use of a record system in farm management and financial analysis. It includes the establishment of farm business goals, selection and use of farm credit, farm business arrangements, farm estate planning and farm income taxes. Instruction is provided on the use of computers and/or computer records. Production and financial decisions are based on each student's farm business analysis. Thirty-six hours of group and twelve hours of individual on-farm instruction are offered.

090-387 Farm Business Management-Update 2 credits
Agriculture is a high-tech business today, not only because of new machinery, equipment, breeding techniques, selective pesticide plant breeding and feeding practices, but also because of the increasing use of business skills, computers and marketing methods. Local, state and federal governments are imposing new rules and regulations, and farm price support bills change yearly. All require the farmer to make decisions affecting the farm operation. Because of changing production technology and farm management decisions, established farmers need to receive up-to-date instruction and information on current practices for farm records and analysis, soils, crop management and livestock nutrition and management. The specific objectives of this course are modified on a yearly basis to meet the needs of area farmers.
090-381 Operating the Farm Business—Sheep Production  3 credits
This first-year course emphasizes the management skills and concepts necessary for the sheep production student to continue farming with today's changing technology and farm business financing. It builds the foundation for the other courses in this program. Special emphasis is given to establishing and recording sheep production and family goals. The student organizes and maintains farm business records and interprets and analyzes the records to assist in making sound farm business management decisions. Each student's entire farming operation is assessed, and plans are developed for future needs, goals and objectives as they relate to sheep production. Students evaluate goals and objectives upon completion of the course. Thirty-six hours group and twelve hours individual on-farm instruction are offered. Completion of the course is required prior to enrollment in any of the other courses in the program.

090-382 Soils Management—Sheep Production  3 credits
This course covers the preparation and implementation of a land use plan and helps students understand soil testing procedures and reports as they relate to sheep production. Students receive instruction on making, understanding and implementing fertilizer recommendations and budgets. Other topics include the application of farm manures, chemicals, soil conservation practices, and the management and safe use of farm machinery and equipment. Soil management emphasizes analysis of the farming business and planning cropping strategies to meet student needs. Thirty-six hours of group and twelve hours individual on-farm instruction are offered.

090-383 Crop Management—Sheep Production  3 credits
This course covers all phases of crop production, management and economics as related to sheep production. Specific topics relate to variety, selection, planning, pest control, harvesting, storing and marketing. In addition, the farm cropping program is related to the total sheep enterprise on a short- and long-term basis. Crop management emphasizes analysis of the farming business and planning cropping practices and strategies to meet student needs. Thirty-six hours of group and twelve hours individual on-farm instruction are offered.

090-384 Livestock Nutrition—Sheep Production  3 credits
This course emphasizes the skills, techniques and concepts necessary for sound feeding management in sheep production. It includes the determination of feed values, economics of feed, nutritional terminology, requirements, need consumption of sheep, breeding and understanding feed tag labels for protein, energy, minerals and vitamins, evaluation of base feed and feeding programs, and metabolic disease of lactating ewes. Sheep feeding efficiency is measured by using the farm business analysis. Not part of nutrition, but also covered in this course, is a discussion of how the family can identify its role in the community and how they can deal with stress factors. Thirty-six hours group and twelve hours individual on-farm instruction are offered.

090-385 Livestock Management—Sheep Production  3 credits
This course relates specifically to sheep production and provides instruction in the various phases of selection, breeding, flock health, raising replacement stock, and marketing sheep and sheep products. It includes the selection, operation and maintenance of the sheep flock, feed, ventilation, manure handling, equipment and farm buildings. In addition, the sheep program is managed through use of the farm business analysis. Thirty-six hours group and twelve hours individual on-farm instruction are provided.

090-386 Farm Records and Business Analysis—Sheep Production  3 credits
This course emphasizes the practical use of a record system in farm management and financial analysis. It includes the establishment of farm business goals, selection and use of farm credit, farm business arrangements, farm estate planning and farm income taxes. Instruction is provided on the use of computers and/or computer records and financial analysis of the farm business. Production and financial decisions are based on each student's farm business analysis. Thirty-six hours group and twelve hours individual on-farm instruction are offered.

090-387 Sheep Production—Update  2 credits
Sheep production is a high-tech business today, not only because of new machinery, equipment, breeding techniques, selective pesticide plant breeding, and feeding practices, but also in the use of business skills, computer and marketing methods. Local, state and federal governments are imposing new rules and regulations, and farm price support bills change yearly. All require the sheep producer to make decisions affecting the farm operation. Because of changing production technology and farm management decisions, there is a need for the established farmer to receive up-to-date instruction and information about current practices for farm records and analysis, soils and crop management, and sheep nutrition and management. Specific objectives for this course are modified on a yearly basis to meet the needs of area sheep producers.
**COURSES**

**091-123 Introduction to Laboratory Animal Science** 3 credits

This beginning course acquaints the student with the field of laboratory animal care. Laboratory procedures are used to augment the lecture material. Topics include a short survey of the history of laboratory animal technology and the usage of laboratory animals. The Animal Welfare Act and other regulations pertaining to the care of laboratory animals are emphasized. The husbandry of laboratory animals is covered in depth. Collection of specimens, methods of treatment, restraint methods, anesthesia, surgical assisting techniques, humane euthanasia, and necropsy procedures are discussed and practiced. Students maintain a colony of laboratory animals, providing care and treatment, during this course. Methods of recordkeeping and management are also discussed.

**091-125 Veterinary Office Management** 3 credits

This course introduces the student to business practices utilized in modern veterinary hospital. Areas of instruction include fundamental principles involved in developing good public, client and staff relations; office procedures, including telephone etiquette, appointment scheduling, records management and inventory control; client services and education; marketing practices; personal grooming and hospital attire; job application techniques and advancement opportunities. Emphasis is placed on professional ethics and involvement in professional organizations is encouraged. The course also includes basic principles of accounting procedures and an introduction to computer technology as used in the veterinary office, with a computer lab. Prerequisite: completion of or concurrent enrollment in 091-158 Internship or consent of the instructor.

**091-126 Veterinary Operating Room Techniques** 4 credits

This course encompasses the study and practical application of sterilization techniques, preparation of the surgical site, operating room conduct, assisting the surgeon, and dental prophylaxis. Included in the course are the use of disinfectants and antisepsics in veterinary medicine, nomenclature and some basic uses of surgical instruments, preparation of packs, gowns, gloves and the use of sterilization equipment, the classification and physical properties of anesthetics used in large and small animal veterinary medicine and surgery. Prerequisites: completion of or concurrent enrollment in 091-158 Internship and 091-140 Animal Anatomy and Physiology; completion of 091-130 Animal Restraint is strongly recommended.

**091-130 Animal Restraint (Elective)** 2 credits

In this course, students learn various restraint procedures and techniques along with basic animal nursing skills. Students gain practical experience in a weekly, two-hour laboratory session in which they work with live animals. The animals used are those which graduates are most apt to encounter while assisting veterinarians in practice. Lectures cover restraint techniques as well as animal behavior and psychology. This elective course is highly recommended before 091-138 Internship.

**091-140 Animal Anatomy and Physiology** 4 credits

Lectures emphasize terminology, functions and organization of the systems as an integrated structural and functional body. Laboratory exercises are directed toward locating and identifying anatomical structures that are parts of the body systems. Cadaver and tissue specimens from common domestic species are dissected and studied in the laboratory. Prerequisite: completion of or concurrent enrollment in 091-105 Animal Biology or equivalent, or consent of instructor.

**091-151 Clinical and Hospital Techniques** 4 credits

This course covers the study and practical application of basic clinical techniques a technician might be expected to perform in a practice. Emphasis is placed on radiographic techniques and medical nursing procedures. Prerequisites: 091-125 Veterinary Operating Room Techniques and 091-153 Hospital Supply and Medicants.

**091-155 Hospital Supply and Medicants** 3 credits

This course entails a study of drugs and other substances of veterinary medical importance. Basic terminology, usage, measurement, administration, drug inventory and storage of drugs is emphasized. Prerequisite: completion of, or concurrent enrollment in, 091-158 Internship.

**091-158 Internship (320 hours or more in an 8 week period)** 4 credits

Internship (work experience) is a very important phase of practical training for students enrolled in the veterinary technician program. It generally follows the second semester of classwork in the college summer recess and is conducted during a period of eight weeks (or 320 hours). Placement for this training is with a cooperating veterinarian who is licensed to practice in Wisconsin. The student work is supervised by assigned veterinarian instructors. Prerequisite: completion of all first-year courses or consent of instructor.

**091-170 Veterinary Medical Terminology/ Occupational Preparation** 2 credits

A knowledge of standard terminology is prerequisite to common understanding and meaningful communication in any field of specialization, and especially so in veterinary medicine. The purpose of this course is to teach acceptable veterinary medical terminology for common clinically recognizable diseases, operations, systems and procedures. Emphasis is placed on word recognition, meaning and appropriate usage, and spelling and pronunciation. Understanding word structure and word parts is a helpful tool for analyzing, learning and using a proper medical vocabulary. This course is taught in units by body system and anatomical structure. In addition to medical terms, common medical signs, abbreviations and colloquial vocabulary are taught. The occupational preparation part of the course is designed to acquaint veterinary technician students with the college and their career field. Information is presented to help individuals succeed in both. Students are introduced to the types of employment available in veterinary medicine. Tips are given to assist the student in job-seeking, resume writing, and interviewing for both internship and job placement. After graduation, internship requirements are discussed, and help is given to prepare students for placement with veterinarians.

**091-171 Animal Care and Management I** 3 credits

This course focuses on the animal husbandry and restraint of small companion animals, including dogs, cats and birds. Subject material includes the human-animal bond, animal behavior; acceptable husbandry practices; species, breed and sex identification; health care management; common diseases; reproduction; and proper nutrition. Client education is emphasized. The laboratory provides the student with the opportunity to practice small animal restraint techniques and basic animal nursing skills.

**091-172 Animal Care and Management II** 3 credits

This course covers husbandry, restraint, and nutritional information concerning domestic livestock. Current basic animal husbandry practices are taught with emphasis on selection, breeding, rearing, caring, and housing for each kind. Disease and body functions as related to nutrition are included, as well as feeding to prevent malfunction of animal health and production. Restraint of animals utilizing safe and humane physical and chemical methods is emphasized. Prerequisite: 091-171 Animal Care and Management I or consent of instructor.

**091-185 Laboratory Animal Technician**

**091-115 Zoonosis** 1 credit

This course studies selected diseases which are transmissible to man from domestic animals, birds, wild animals and rodents. Also included are vectors, fomites, food and feed. New diseases are discussed as well as recent outbreaks of transmissible diseases.

**091-123 Introduction to Laboratory Animal Science** 2 credits

This beginning course acquaints the student with the field of laboratory animal care. Laboratory procedures are used to augment the lecture material. Topics include a short survey of the history of laboratory animal technology and the usage of laboratory animals. The Animal Welfare Act and other regulations pertaining to the care of laboratory animals are covered in depth. Collection of specimens, methods of treatment, anesthesia, surgical assisting techniques, humane euthanasia, and necropsy procedures are discussed and practiced. Students maintain a colony of laboratory animals, providing care and treatment, during the course. Methods of recordkeeping and management are also discussed.

**091-140 Animal Anatomy and Physiology** 4 credits

Lectures emphasize terminology, functions and organization of the systems as an integrated structural and functional body. Laboratory exercises are directed toward locating and identifying anatomical structures that are parts of...
of the body systems. Cadavers and tissue specimens from common domestic species are dissected and studied in the laboratory. Prerequisite: 806-105 Animal Biology or equivalent, or consent of instructor.

091-170 Veterinary Medical Terminology/Occupational Preparation 2 credits
A knowledge of standard terminology is prerequisite to common understanding and meaningful communication in any field of specialization, and especially so in veterinary medicine. The purpose of this course is to teach acceptable veterinary medical terminology for common clinically recognized diseases, operations, systems and procedures. Emphasis is placed on word recognition, meaning and appropriate usage, and spelling and pronunciation. Understanding word structure and word parts is a helpful tool for analyzing, learning and using a proper medical vocabulary. The course is taught in units by body system and anatomical structure. In addition, common medical signs, abbreviations and colloquial vocabulary are taught. The occupational preparation component of the course is designed to acquaint laboratory animal technician students with the college and their career field. Information is presented to help individuals succeed in both. Students are introduced to the types of employment available in veterinary medicine. Tips are given to assist the student in job-seeking, resume writing, and interviewing for both internship and job placement after graduation. Internship requirements are discussed, and help is given to prepare students for placement with veterinarians.

091-171 Animal Care and Management I 3 credits
This course focuses on the animal husbandry and restraint of small companion animals, including dogs, cats and birds. Subject material includes the human-animal bond; animal behavior; acceptable husbandry practices; species, breed and sex identification; health care management; common diseases; reproduction; and proper nutrition in health, disease and stages of the life cycle. Client education is emphasized. The laboratory provides the student with the opportunity to practice small animal restraint techniques and basic animal nursing skills.

091-172 Animal Care and Management II 3 credits
This course covers husbandry, restraint, and nutritional information concerning domestic livestock. Current basic animal husbandry practices are taught with emphasis on selection, breeding, rearing, caring, and housing for each kind. Disease and body functions as related to nutrition are included, as well as feeding to prevent malfunction of animal health and production. Restrain of animals utilizing safe and humane physical and chemical methods is emphasized. Prerequisite: 091-171 Animal Care and Management I or consent of instructor.

091-173 Facility Management Techniques 3 credits
This course is designed to acquaint the student with various aspects involved in the management of a laboratory animal facility. Interpersonal relations, stress management, and time management principles are taught to help the students better prepare themselves. Basic computer operations instruction are covered. In addition, students are exposed to the various operating protocols and safety procedures they may encounter.

091-174 Laboratory Procedures 3 credits
In this course, the student is introduced to principles, procedures, and equipment used in hematology, bacteriology, urinalysis and parasitology. Emphasis is placed on the proper collection and handling of samples and student ability to perform test procedures in the above areas. Laboratory exercises are used to supplement lecture materials while stressing safety, procedures and materials used.

091-175 Infectious Diseases 2 credits
Infectious diseases are caused by the presence of foreign living organisms in or on an animal's body. The laboratory animal technician must have a working knowledge of the etiology, symptoms and transmission of such diseases, as well as reporting requirements, proper handling of diagnostic samples, and means of prevention and control of infectious diseases. This course surveys the primary infectious diseases with special emphasis on high-exposure diseases that might involve the lab animal technician. These include viral, bacterial, mycotic and parasitic disease.

091-176 Animal Nursing Procedures 3 credits
This course offers instruction and practical application of nursing techniques that a laboratory animal technician might be expected to perform. The areas covered are radiography, electrocardiography, first aid, shock and shock therapy, fluid therapy, and quarantine procedures. Students are introduced to normal and abnormal animal behavior that may be indicative of disease. Lectures are supplemented by laboratory demonstrations and practice of procedures on laboratory animals.

091-177 Animal Anatomy and Physiology II 3 credits
This course focuses on comparative anatomy and physiology of laboratory animals. Instruction also includes procedures for humane euthanasia, necropsy and tissue collection, and histology.

091-178 Issues in Laboratory Animal Science 3 credits
This course emphasizes the humane care and use of laboratory animals, as well as examining regulatory agencies and guidelines for laboratory animal facilities. Because of the public awareness of the use of animals for research, extensive discussions focus on the ethics and philosophy of animal use, historical animal use, and public relations and safety procedures.

091-179 Laboratory Animal Science II 3 credits
This course includes the study of animal breeding systems and techniques, the isolators and equipment used, and the types of animals used for specific breeding systems. Also covered is shipping and receiving of animals, sanitation of animal rooms and cages, and monitoring of the environment and inventory.

091-180 Research Animal Surgical Nursing 3 credits
This course encompasses the study and practical application of sterilization techniques, preparation of the surgical site, operating room conduct, assisting the surgeon, and the performance of surgery. Surgical procedures expected of students utilize laboratory animals and are under the direction of an instructor. Included in the course are the use of disinfectants and antiseptics, nomenclature and basic uses of surgical instruments, preparation of packs, gowns, gloves, and the classification and physical properties of anesthetics used in surgery.

091-301 Dairy Business Management 2 credits
Types of dairy business, employer-employee relationships, financial records, dairy farm taxation, agricultural finance and credit, insurance needs and investment opportunities for the dairy family are covered.

091-302 Dairy Cattle Management 2 credits
This course provides information on infections and parasitic diseases and other disorders of dairy cattle including preventive measures to enable development of a herd health program.

091-303 Milk Production 2 credits
Anatomy, development and physiology of the mammary gland, hormones associated with lactation, milking management, milking equipment selection and maintenance, mastitis control, milk quality, and factors affecting lactation are topics in this course.

091-304 Dairy Cattle Industry 2 credits
National and state trends in the dairy industry, production testing programs, milk marketing and programs of breed associations, dairy promotion organizations and agricultural governmental agencies are discussed and studied in this course.

091-305 Dairy Housing and Equipment 2 credits
Topics in this course include farmstead planning, selection of construction materials, insulation and ventilation, feed handling and storage, manure handling and storage, and the development of plans for construction and remodeling of stall barns, free stall barns, milking parlors, calf housing and heifer housing.

091-325 Dairy Cattle Feeding 3 credits
This course includes instruction in ruminal digestion and utilization of feed nutrients, the nutritional requirements of dairy animals, and the development of feeding programs for lactating cows.
095-301 Basic Taxidermy
This course presents the introductory elements of taxidermy: laws, licenses, tanning, supplies, use of tools, advertising, bookkeeping, tax laws, collection and care of specimens, specimen measurement, workshop planning and preparation, and hazards and safety.

095-302 Taxidermy-Fish
This course presents the entire process of fish mounting. Three techniques of making fish bodies and methods of mounting and preparing fish for painting are demonstrated. Students are required to mount a minimum of four gamefish, three panfish and one Lake Michigan trout or salmon.

095-304 Taxidermy-Upland Birds
This course presents proper procedures and techniques needed to mount upland birds. Students are required to complete four upland bird mounts, including two pheasants. The other two are students' choices of specimens such as grouse and quail.

095-306 Taxidermy-Small Mammals
This course presents proper mounting techniques and two methods of mounting small mammals. Students are required to mount two small mammals, such as squirrels, mice, muskrats and opossum.

095-308 Taxidermy-Gameheads
This course presents proper procedures for capping, fleshing, tanning, mounting and finishing. Students are required to complete three gamehead mounts, such as whitetail deer, mule deer, antelope, bear, coyote and fox.

095-310 Taxidermy-Large Mammals and Rug-Making
This course presents techniques needed for mounting large mammals, such as fox, raccoon, coyote and bear. Students learn rug-making techniques. Pupils are required to complete two mounts.

095-312 Taxidermy-Fish Painting and Novelties
This course presents two systems of painting, one using oil-based paints and another using Lifelike lacquer-based paints. All fish are air-brushed in high-tech spray painting booths. Air brush techniques and maintenance are also covered.

095-314 Taxidermy-Waterfowl/Ducks
This course presents proper procedures and techniques for mounting waterfowl. Students are required to complete four mounts-three of the various duck species and one goose. Painting of bills and feet are also covered.

101 Accounting

101-111 Accounting I-Principles
4 credits
An introduction to the field of accounting is presented. 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. Specific details of accounting for cash, notes and interest, inventories, fixed assets, depreciation and payroll are studied.

101-113 Accounting II-Principles
4 credits
Procedures for accounting for partnerships and corporations are studied. Additional topics include current and long-term liabilities, statement of cash flows, departmental accounting, manufacturing accounting, analysis of financial statements, introduction to cost accounting, budget preparation and cost-volume-profit analysis. Prerequisite: a grade of "C" or better in 101-111 Accounting I-Principles or equivalent.

101-114 Applied Accounting I
3 credits
Practical application of accounting principles, basic business terminology, practices and techniques are stressed for students not majoring in accounting. The accounting cycle of journalizing transactions, posting, adjusting and closing entries as well as the preparation of accounting statements is emphasized.

101-115 Applied Accounting II
3 credits

101-118 Management Accounting
4 credits
This course 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. Prerequisites: 101-111 Accounting I-Principles and 101-113 Accounting II-Principles.

101-121 Accounting III-Intermediate
4 credits
This course includes a discussion and extensive applications of generally accepted accounting principles, study of recent developments and pronouncements in accounting practice, the preparation and interpretation of financial statements, and intensive study of the valuation and presentation of the various accounts: cash, receivables, inventories, operational assets, and intangible assets. Prerequisite: a grade of "C" or better in 101-113 Accounting II-Principles.

101-122 Accounting IV-Intermediate
4 credits
This course 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, timing of the recognition of revenue, and earnings per share. Special topics included are taxes, long-term investments, pensions and leases. Further
consideration is applied to errors and their correction, changing price levels and statements of cash flow. Prerequisite: a grade of "C" or better in 101-123 Accounting III-Intermediate.

101-123 Tax I
This course is an introduction to federal and state income tax laws with an emphasis on personal taxes. The following areas are included: income, deductions, credits, depreciation, gains and losses, and sole proprietorship taxation. The course requires the preparation of a series of individual income tax returns. Prerequisite: 101-111 Accounting I-Principles.

101-124 Auditing
This is a study of the auditing code of ethics principles, conventional auditing procedures, and today's critical issues in the field of auditing. Emphasis is placed on internal control features and preparation and presentation of working papers. A short audit case is completed to illustrate various auditing concepts and procedures, and the intensive use of working papers and schedules. Prerequisite: 101-121 Accounting III-Intermediate or concurrent registration.

101-125 Cost Accounting I
This course provides a continuation of basic cost/managerial accounting subjects from Cost Accounting I. In addition, it encompasses direct costing and profit analysis; managerial accounting topics; simulation of cost system, field trips, and student reports.

101-126 Cost Accounting II
This course provides a continuation of basic cost/managerial accounting subjects from Cost Accounting I. In addition, it encompasses direct costing and profit analysis; managerial accounting topics; simulation of cost system, field trips, and student reports.

101-127 Tax II
This course is an introduction to federal income tax laws with an emphasis on partnerships, corporations, and S-corporations. The course includes a unit on tax research and tax administration. One tax research project on individual taxation is completed. A course requirement is the preparation of a tax return for each of the following: a partnership, a corporation, and an S-corporation. Prerequisite: 101-123 Tax I.

101-129 Governmental Accounting
This course provides an introduction to governmental and non-profit entities as presented from the point of view of authoritative organizations, voluntary health organizations, and non-profit entities as covered by the American Institute of Certified Public Accountants. Also covered is governmental terminology, budgeting, and budgetary publication and fund accounting. Problem-solving for governmental and non-profit agencies is emphasized. Cash planning and control and cash reports are studied. Prerequisite: 101-113 Accounting II-Principles.

101-312 Sole Proprietorship Accounting
This course is an introduction to the principles of double-entry bookkeeping with an emphasis on the recording of cash, bank, and other transactions. Emphasis is placed on proper cash receipts and disbursements records, current payroll practices, and accounting for a merchandising concern.

101-335 Payroll Accounting-Income Tax
This course covers the computation of employee earnings, the recording of payroll journal entries, and the preparation of employer payroll tax returns. The course also covers basic income tax return preparation.

102-102 Business Administration

102-102 Business Mathematics
This course is designed to increase the student's knowledge and skill in solving practical financial problems of a business or personal nature through the use of arithmetic and logic. The material included in this course develops a sound base for concurrent or subsequent courses in accounting and other business related subjects. Solving word (story) problems is emphasized.

102-104 Business Statistics
This course introduces the theory and application to basic statistical methods. Emphasis is placed on solving practical business problems. Topics include basic measures, probability, sampling and time series analysis.

102-105 Math of Finance
The course includes a review of basic arithmetic and elementary algebra. Emphasis is placed on solving practical word problems through the use of formulas and tables. The material included in this course develops a sound base for subsequent or concurrent courses in related business subjects by using an analytical approach to problem solving.

102-112 Business Report Writing
This course provides instruction in the writing of business reports. The written report involves an historical analysis of the trends within the company, the industry and the economy. Students make use of financial analysis in developing their reports.

102-113 Business Communications
This course, both written and verbal communications are studied. Dictating equipment, telephone techniques, job applications and various types of letters used to communicate in the business office are studied.

102-114 Business Communications
Both written and verbal communications are studied. Applications pertaining to business communications and procedures are stressed.

102-116 Health Care Principles
This course studies the evolution of health care as we know it in the United States and a review of its historical background. Emphasis is placed on major health problems today, the care necessary for these problems, and the study of aging and care of the elderly, including long-term care.

102-117 Money and Banking
This introductory course studies money, the banking system and the role of the Federal Reserve as central banker. Considered are the implementations of monetary and fiscal policy through a central bank. Introduced are the foundations of Monetaryism and the framework of Keynesianism. Focus is on the interaction of interest rates and the interrelationships of interest rates and financial markets. The economy, the banking system and financial markets are studied in the context of current events.

102-118 Introduction to Health Care Systems
This course is an orientation to the health care system in the United States, including an introduction to the various health care practitioners and organizations. The organization and administration of a health care facility, including staffing, financing, regulations and public education, are stressed. The role of government and third-party financing of health care is presented.

102-121 Financial Management of Health Care
This course is designed to acquaint the student with the basic elements of financial management in hospitals and nursing homes. The purpose and use of internal controls to safeguard the assets of the institutions are stressed. Collection of receivables, cash flow and third-party reimbursements are emphasized. An emphasis is placed upon the department head's role in budget preparation and its importance to the health care facility.
102-123 Environmental Health and Safety 2 credits
This is an introductory course which emphasizes federal and state health and safety regulatory statutes pertaining to hospitals and nursing homes. State licensure requirements, federal occupational health and safety requirements are emphasized. Environmental safety requirements of the Joint Commissions on Accreditation of Hospitals are discussed.

102-126 Principles of Finance 3 credits
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. Prerequisites: 101-111 Accounting I-Principles and 101-113 Accounting II-Principles.

102-128 Financial Institutions 3 credits
This introductory-level course considers the role of financial institutions in the economy. Topics studied 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 government financial institutions.

102-129 Commercial Banking 3 credits
This advanced-level course considers finance from the point of view of a single commercial bank. Topics studied include the functions and operations of commercial banks, analysis, interpretation and evaluation of financial statements, lending policies and procedures and characteristics of various types of loans. Prerequisite: prior background or coursework in both accounting and finance.

102-130 Personal Finance 3 credits
This introductory course considers finance from the point of view of the individual or family unit. Topics studied include budgets, insurance, housing, borrowing, savings, investing and estate planning. Students complete personal finance projects applying the material learned.

102-134 Business Organization and Management 3 credits
This is a survey course designed to impart an understanding of the economic and legal environment in which businesses operate, as well as an understanding of the organization and management of business enterprises. An emphasis is placed on business terminology and concepts.

102-136 Personnel Management 3 credits
This course is designed for mid-management careers and combines theory and practice in analysis of the management process. The process of management is described in the sequence of planning, organizing, leading and controlling the causal relationships between managerial action and the effect of that action upon company objectives.

102-137 Computerized Accounting Applications 3 credits
The objectives of this course are to provide practical experience in using a spreadsheet to review material covered in previous accounting courses, and to demonstrate the interlocking relationships that exist by developing spreadsheet templates that can be used in an employment situation. Students prepare detailed budgets and develop a business and financial plan for managing and operating a business. Prerequisite: 101-113 Accounting II-Principles or consent of instructor.

102-138 Accounting and Payroll Systems 3 credits
This course is designed as a survey of the accounting systems, procedures and methods that are used to capture data and report financial information. Principles and problems of accounting systems, systems design, charting, internal control procedures, forms design and hands-on experience with a microcomputer are emphasized. Prerequisite: 101-113 Accounting II-Principles.

102-143 Management Techniques 3 credits
This course deals with problems facing management and workers with special emphasis on supervisory personnel and their challenges. Management principles are applied to such topics as the relationship of management to the business, its employees, the owner, other customers and the community. Problem-solving at the supervisory level is emphasized.

102-146 Parliamentary Procedure 2 credits
This rules and procedures for effectively conducting a business meeting are covered through lecture and practical exercises. Topics include meeting management in business, duties of officers, agenda development, conducting meetings, formulating effective motions, purpose and strategy of meetings, the amendment process, voting, nominations, election procedures, action in boards and committees, and bylaws. Demonstration meetings are conducted.

102-160 Business Law I 3 credits
This survey course covers legal principles used in the business world. Contracts, sales, bailments, agency, employment, property law, torts, criminal law, marital property and bankruptcy are emphasized. This course is taught on a level suitable for an associate degree student. Federal, state and case law serve as the basis of study.

102-161 Business Law II 3 credits
This advanced course is for the student who has already mastered a basic business law course. More sophisticated business law subject matter is covered, including corporation and partnerships, real estate, insurance, estate planning and consumer protection. Prerequisite: a grade of "C" or better in 102-160 Business Law I.

102-189 Affiliation 5 credits
The emphasis in this course is student on-site training in a health care facility or organization under the guidance of a preceptor. Exposure to the health care environment is stressed to provide the opportunity to perform work duties for the institution or organization.

102-194 Contemporary Issues-Health Care 2 credits
Current topics in the health care field are discussed in seminar style. Such topics as health care reimbursement, patient rights, comprehensive health planning and health maintenance organizations are included. The course emphasis is on student research into these and other topics and on discussions of topics.

102-305 Applied Business Mathematics 2 credits
A review of practical business mathematics is followed by mathematical problems related to accounting, finance, payroll, marketing and other related business problems.

102-333 Principles of Business 2 credits
This fundamental business course introduces students to the varied functions and operations of a business enterprise. These functions are approached both from the business and consumer points of view in terms of the marketing, finance and production of a business. Particular emphasis is given to the marketing and finance aspects. Also considered is the relationship of management to the dynamic business environment.

102-360 Business Law 2 credits
This survey course is concerned with legal principles used in the business world. The course is designed for the one-year diploma student.

102-361 Business Law II 2 credits
This advanced course is for the student who has already mastered a basic business law course. More sophisticated business law subject matter is covered.
103 Business Machines

103-130 Microcomputer Applications  2 credits
This course is designed to give students fundamental knowledge, concepts and skills in the operation of a microcomputer. Students learn the disk operating system, as well as an electronic spreadsheet that includes graph creation, data base management, and word processing. Prerequisite: keyboarding speed of 30 wpm.

103-131 Lotus  1 credit
This course is designed to give students fundamental knowledge, concepts and skills in the operation of a microcomputer. Students learn the electronic spreadsheet, including database management, using Lotus 1-2-3. They also learn the disk operating system (DOS). Prerequisite: keyboarding speed of 30 wpm.

103-132 Lotus-Intermediate  1 credit
This course provides advanced knowledge in the operation of the microcomputer using Lotus 1-2-3. Students work on spreadsheet analysis, graphics and database management, @ functions, macros, data tables, and transferring data. Prerequisites: keyboarding speed of 30 wpm and beginning Lotus course, or previous experience with Lotus.

103-135 WordPerfect  1 credit
In this course, students gain fundamental knowledge, concepts and skills in the operation of a microcomputer. They learn word processing, using WordPerfect, as well as the disk operating system (DOS). Prerequisite: keyboarding speed of 30 wpm.

103-138 OfficeWriter  1 credit
This course enables students to gain fundamental knowledge, concepts and skills in the operation of a microcomputer. They learn word processing, using OfficeWriter, as well as the disk operating system (DOS). Prerequisite: keyboarding speed of 30 wpm.

103-140 Desktop Publishing  1 credit
This course is designed to give students fundamental knowledge, concepts and skills in the operation of a microcomputer using the desktop publishing software Pagemaker. Prerequisite: keyboarding speed of 30 wpm, DOS and word processing knowledge.

103-144 dBase  1 credit
This course is designed to give students fundamental knowledge, concepts and skills in the operation of a microcomputer and its disk operating system (DOS) using dBase III+ software. Prerequisite: keyboarding speed of 30 wpm.

103-161 Machine Calculation  1 credit
This course stresses fundamental touch operation of electronic calculators, as well as business applications. Special emphasis is given to business problems pertinent to the student's field of training.

103-305 Data Entry I  3 credits
Students taking this course learn to use on-line terminals running under (KEYFAST) software to enter, verify and scan data (make corrections). Data entry concepts and techniques are stressed as the student develops speed and efficiency in using the equipment by keying from a variety of source documents likely to be encountered on the job. Upon completion of the course, students are expected to be keying between 7,000 to 9,000 net keystrokes per hour. Prerequisite: keyboarding (touch typing) speed of 35 wpm.

103-306 Data Entry II  3 credits
Students taking this course review the techniques for use of on-line terminals running under KEYFAST software to enter, verify and scan (correct) data. Data entry concepts and techniques are stressed as the student increases speed and efficiency in using the equipment by keying from a variety of source documents likely to be encountered on the job. Upon completion of the course, the student is expected to be keying from 9,000 to 12,000 net keystrokes per hour. Also included in the course is instruction in format creation/maintenance using techniques which allow for optimum data entry and verification efficiency. Prerequisite: successful completion (minimum 'C' grade) of 103-305 Data Entry I or data entry work experience (minimum speed of 7,500 NKM).

103-330 Microcomputers I  3 credits
This course is designed to give students fundamental knowledge, concepts and skills in the operation of a microcomputer. Students learn the disk operating system and an electronic spreadsheet, which includes graph creation, database management and word processing functions. Regular discussions of current and past innovations associated with the field of microcomputers, and the development of a vocabulary which allows for interaction with others in the field, are important parts of the course. Prerequisite: keyboarding speed of 30 wpm.

103-331 Machine Calculation  3 credits
Fundamental operations and business applications on electronic calculators are stressed. A high degree of proficiency is expected at the completion of this course.

103-332 Machine Calculation-Mathematics  3 credits
This course teaches the fundamental operations and business applications of electronic printing/display calculators. Business applications include percentages, invoices and discounts, interest and bank discount, payroll, mark-up, etc. A high degree of proficiency is expected upon completion of this course.

103-355 Machine Calculation  1 credit
Instruction is given on electronic calculators and adding machines for students enrolled in one-year programs.

103-357 Microcomputers II  3 credits
Students taking this course gain additional experience using the disk operating system and other appropriate software with the IBM Personal Computer as they learn to work with common business software in database management applications for microcomputers. Regular discussions of current and past innovations associated with the field of microcomputers, and the development of a vocabulary which allows for interaction with others in the field, are important parts of the course. Prerequisite: 103-330 Microcomputers I (minimum "C" grade).

104 Marketing

104-100 Sales  3 credits
This course introduces the basic principles, concepts and theories of retail and non-retail selling and their application to an actual sales presentation. Special attention is given to personality development, self-image concepts and body communication.

104-101 Career Orientation  1 credit
Career Orientation is a required one-credit course for all newly entering Marketing majors. Students have an opportunity to assess present skills, knowledge, attitudes and personal qualities, and to develop improvement goals based upon an analysis of this assessment. The course also introduces the wide variety of marketing careers available upon graduation, helps students develop a more systematic and effective approach to life and career planning. Upon completion of this course, students should feel more certain of their life and career goals. They will also be more aware of the kinds of activities to pursue while attending MATC in order to prepare themselves to become successfully employed and to advance in the field of marketing.

104-102 Marketing Principles  3 credits
This course is designed to acquaint students with the marketing process and how it operates within both profit-seeking and non-profit organizations. The entire marketing mix is examined on a broad scale; elements examined include market segmentation, market research, consumer behavior, product design and planning, pricing policies and strategies, distribution, advertising, sales promotion and selling. This basic course gives a perspective of marketing as it relates to contemporary living and society's changing needs.

104-103 Marketing Information Management  3 credits
The Marketing Information Management function refers to systematically gathering, analyzing and distributing information to facilitate marketing decisions. Topics include the need for and uses of marketing information, the systems of marketing information management, using the scientific
method in problem solving, forecasting, conducting primary and secondary research, analyzing and reporting research, using appropriate technology, and the marketing information process.

104-104 Selling Principles 3 credits
This course provides the student with an introduction to the basic principles, concepts and theories of retail selling and their application to the actual sales presentation. Special attention is given to personality development, self-image concepts and body communication.

104-106 Small Business Management 2 credits
This course covers principles of operation and management for small businesses. Special attention is paid to investigating business opportunities, and to organizing, financing and controlling small businesses.

104-109 Principles of Insurance 3 credits
This course covers risk and hazard laws or probability, insurable hazard situations, subrogation, insurable interest, co-insurance, proximate cause, negligence, deductibles and valued policies.

104-110 Supervision Principles 3 credits
This course provides the student with an introduction to the principles, methods and techniques of supervision and their application to ease problems. Special attention is given to problem-solving, small group decision-making, teamwork and the supervisor-employee relationship.

104-111 Marketing Club Operations 1 credit
This course is designed to provide students with practical experience in organizing and operating professional business clubs. The functions and activities center around development in four major areas: leadership, civic consciousness, social responsibility and vocational understanding.

104-116 Management of Professional Organizations 1 credit
Most people participate in professional organizations or clubs at some time in their lives. This is particularly true with people who are in some way connected with the field of marketing. Membership in an organization usually provides important business contacts as well as providing an opportunity to share ideas and grow professionally. This course is designed to give students the tools they need to manage any organization or club. It is also designed to give students an opportunity to apply what they have learned in an actual professional organization environment.

104-117 Small Store Operation 3 credits
Students in this course are responsible for the operation of an actual gift shop (the Cracker Barrel) located within the college. Buying in regional markets, planning, pricing, promotion and selling are all part of this course.

104-119 Visual Merchandising 3 credits
The principles and elements of design are incorporated into interior and exterior displays. Coordination of the total sales promotion effort is emphasized. Students are required to build many types of displays.

104-123 Merchandising Principles 3 credits
Merchandising involves the planning required on the part of a businessman to have the right merchandise at the right time, in the right place, in the right quantities, at the right price. Students in this course have the opportunity to learn how to accomplish effective merchandising practices. Guest speakers, field trips and a computer simulation are all part of this course. Recommended prerequisite: 104-117 Small Store Operation.

104-124 Retail Management 3 credits
This is a practical course designed to introduce students to the real world of retail operations and management. The evolution of retailing and its present role in the marketing system, as well as the impact of various trends upon retail institutions are examined. Other major areas covered include: the determination of a target market, site selection and store design, store organization, merchandising, pricing, staffing and training employees, store promotion, customer services and control of store operations.

104-125 Promotion Principles 3 credits
This course examines the behavioral foundations of the promotion process. Elements of the promotional mix are covered, including advertising, public relations and sales promotion. Students learn how to utilize and coordinate these elements in developing and managing a total promotional plan.

104-126 Promotional Campaigns 3 credits
This course continues and expands a more in-depth analysis of the major elements in the promotional mix, including advertising, public relations and sales promotion. Emphasis is placed upon developing promotional skills by completing a variety of individual and group assignments. As a climax to the course, students apply and test their knowledge through the creation and presentation of a total promotional campaign for a product, service, place or business of their choice. Prerequisite: 104-125 Promotion Principles or consent of instructor.

104-128 Principles of Underwriting (AU 61) 3 credits
This course is designed to cover a broad understanding of the underwriting function in insurance. Decision making, coverage analysis, reinsurance, pricing analysis of underwriting information/financial analysis, communications and the changing environment are examined.

104-129 Consumer Behavior 2 credits
This course assumes a basic knowledge of marketing. Emphasis is placed on building a foundation for marketing strategy to enable the marketer to compete effectively. Content is relevant to all business activities including management, accounting, finance and merchandising. Knowledge of consumer behavior benefits the consumer and promotes greater understanding of tasks and performance. The approach covers three major categories: consumer strategy relating to goods and services; variables associated with the individual; and environment consisting of family, social, business, economic and cultural influences.

104-133 Principles of Marketing 4 credits
An overview of the fashion industry and the career opportunities in this industry are explored in this first-semester course. Field trips and guest speakers are key parts of the course.

104-135 Elements of Fashion 3 credits
This course is designed to develop proficiency and competency in the perception, communication and coordination of fashion through an analysis of its various aspects. Camouflaging figure faults by utilizing elements of design, the history of fashion as it relates to today's fashion, terminology of apparel styles, and factors to consider when evaluating quality in clothing are studied.

104-137 Merchandise Planning and Control 3 credits
This course outlines the basic mathematics involved in merchandising. Various terms of purchase negotiated between seller and buyer are studied as well as the various types of markdowns that might be encountered by store personnel. Planning and control functions carried on to achieve the company's predetermined objectives are also explored.

104-138 Fashion Internship II 3 credits
Part-time work experience and weekly seminars are held throughout the semester to discuss student progress and current trends in retail. Job-finding skills to be used after graduation are also a key part of this course.

104-140 Personal Investment Planning (HS 323) 3 credits
This course focuses upon various aspects of financial planning in society: managing personal finances, protection of your resources using insurance, investing your money and controlling your financial future.

104-141 Insurance Adjusting (AAC 34) 3 credits
This course explores areas in property loss and liability adjusting. Emphasis is placed on adjusting procedures, recording information, insurer's liability, methods used in fixing values or loss, investigation and settlement.

104-142 Commercial Insurance (INS 23) 3 credits
Emphasis in this course is placed on understanding coverages, policy provisions and concepts peculiar to common casualty, surety and multiple-line contracts. Contracts studied include the Standard Family and Special Automobile, Employers' Liability and Workmen's Compensation, Owners', Landlords' and Tenants' Liability, Comprehensive General Liability, Comprehensive Personal Liability, and Life and Health coverages, and the liability insurance aspects of modern multiple-line contracts.

104-143 Personal Insurance [INS 22] 3 credits
Emphasis in this course is placed on understanding coverages, policy provisions and concepts common to property insurance. Studies include Standard Fire Policy, Extended Coverage Endorsement, Dwelling and
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104-144 Underwriting Personal Lines (AU 62) 3 credits
This course is designed to provide students the opportunity to study the
underwriting decision-making process in a detailed and challenging way as
it applies to personal lines problems and situations through case, case
studies and actual rating. An in-depth analysis of underwriting factors and pricing
of personal automobile, homeowners and other personal lines is provided. In addition, students explore the computer, account underwriting
and producer relationships.

104-150 Employee Benefits 3 credits
This course introduces the basic concepts and alternatives of group benefits, group health, group life, and group disability. Governmental impact on
these fringe benefits, product design, group insurance pricing, alternate
funding methods, and other benefits (cafeteria, parking, etc.) are examined.

104-151 Commercial Liability Underwriting (AU 63) 3 credits
This course covers the application of the decision-making process to commercial liability risks. The case studies examine not only the major types of
commercial liability insurance, but also such topics as the use of reinsur-
ance and the handling of special accounts and large risks.

104-157 Fashion Internship 3 credits
Full-time, supervised work experience during November and December of the third or fourth semester is the key requirement of this course. Seminars
are held, prior to this full-time employment, to discuss the challenges and opportunities available to the fashion merchandising student on the job.

104-160 Sales Management 3 credits
Students examine the philosophies, principles, policies, strategies and tactics employed in managing a sales force. Specific areas covered include
planning and budgeting for sales force activities, organizing a sales department, operating a sales force (which includes recruiting, selecting, training,
compensating, supervising and motivating salespeople), and analyzing and evaluating sales operations and individual salesperson productivity and effectiveness.

104-172 Career Planning and Development 3 credits
A highly individualized approach to career planning is undertaken through
a systematic review and analysis of each student's previous work, aca-
demic and other life experiences. Each student identifies and assesses present knowledge, skills, attitudes, interests and values as these relate to
career alternatives. Focus then turns to the investigation and use of sources of information regarding the marketing opportunities available in industries and specific companies that might best utilize each student's personal talents. Each student also develops and sharpens job search knowledge and skills in the areas of preparing a personal contact list, selecting and using references,
writing effective cover letters, preparing for and taking job interviews, developing a qualifications brief, using the services of an employment agency, succeeding and advancing in a career, and changing jobs.

104-173 Occupational Research and Analysis 1 credit
This course encourages students to objectively evaluate where they are and
where they are going upon graduation. The steps necessary for waging a successful job-finding campaign are discussed and carried out by students, and individual taped interviews are made. Guest speakers from the field are invited to speak about their careers. Each student writes a term paper specifically related to his or her career objective.

104-175 Field Training Seminar 2 credits
As a prerequisite for this course, employment is necessary in an approved occupation. Projects, reports and discussions are coordinated with situations related to student employment. Participation in this class is subject to employer approval to avoid misunderstanding or misinterpretation of course objectives.

104-178 Menswear Retailing 3 credits
Menswear is an exciting part of the fashion industry. This course explores
what's happening in the menswear industry today. The course is taught by a local Madison businessperson and a member of the staff.

104-179 Marketing Techniques 3 credits
This course stresses marketing as applied to channels of distribution, manufacturing, wholesaling, retailing, service businesses and the consumer, and relates marketing careers to the process of distributing goods and services.

104-180 International Marketing 3 credits
This course offers an analysis of the international market structure. Emphasis is given to foreign market surveys, trade promotion activities,
importing and exporting problems, financial features, channels of distribution, and trade agreements. The overall approach remains a broad concep-
tual viewpoint blending the marketing concept into the structure of the current world marketplace. The consistent focus is on the environment and
on the modifications of marketing thinking and practices occasioned by environmental and cultural differences. The course gives the student a
worldwide orientation necessary to an ever expanding global economy.

104-183 Supervision 2 credits
This course provides the student with an introduction to the principles, methods and techniques of supervision and their practical application to
case problems. Special attention is given to problem solving, small group decision making, teamwork and the supervisor-worker relationship in, pri-
marily, the retail environment.

104-185 Marketing Topics and Trends 3 credits
This course examines the three marketing areas of credit management, cus-
tomer service, and marketing issues and trends; each area is addressed in a
separate six week unit. The credit management unit includes types of consumer credit, regulations of consumer credit, basis of the credit decision,
and collection practices. The customer service unit places some emphasis on telemarketing and direct marketing. Finally, the marketing issues and
trends segment explores various contemporary issues and trends that are occurring in specific companies and organizations.

104-300 Small Business Development and Planning 3 credits
This course provides an introduction to prospective small business owners to the principles involved in planning and operation. Attention is given to
small business appraisal and opportunities. Emphasis is placed on factors that contribute to a successful small business operation.

104-302 Fundamentals of Marketing 3 credits
This is an introductory course that helps students understand the role and functions of producers, wholesalers and retailers. A survey approach is used to
study consumer psychology, marketing research, advertising, pricing, government regulations and consumer organizations. Attention is paid to
product planning.

104-310 Fundamentals of Sales 3 credits
The fundamentals of the sale and its practical application in the retail busi-
ness world are emphasized in this course. Greeting the customer, present-
ing the merchandise, handling objections, closing the sale, suggestion selling, and selling big-ticket merchandise are given special attention.
Emphasis is placed on case problems and an individual sales presentation.

104-312 Orientation Seminar 1 credit
This is a course for all students in the marketing-fashion retailing program. Students have the opportunity to learn about the variety of careers opportunities available in fashion retailing. MATC Marketing Career Day and a Chicago fashion field trip, which are both course requirements, further understanding of marketing-fashion careers. Present skills, knowledge and abilities are assessed as they relate to the student's chosen field, and students are taught the most effective tools for securing the position they desire. Upon completion of this course, students should have secured a job in retail or a closely-related field. This job should be continued through May of the next year and is used to meet the employment requirement for course 104-372 Field Experience.

104-317 Operations Management 3 credits
Small business management strategies are applied to policies and operations. Applications to budgeting, marketing potentials, forecasting and general business operations are included.
104-318 Field Experience 2 credits
Prior employment is necessary in an approved business occupation. Projects, reports, and discussions are coordinated with situations related to employment.

104-320 Leadership Techniques 3 credits
Applied applications of leadership and supervision techniques are studied using case problems. Emphasis is placed on problem solving, goal setting, teamwork, and personal interpersonal relationships.

104-342 Retail Operation and Promotion 2 credits
There is more to retailing than just selling. This course is designed to give students an opportunity to investigate the variety of career opportunities found within the retail store. Topics include store organization, personnel management, customer services, retail credit, shipping and receiving, finance and control, and merchandising. An emphasis is placed on advertising and sales promotion.

105 Related Business

105-102 Principles of Data Processing 2 credits
This course is oriented toward future computer users, preparing students to use microcomputers in business and to communicate effectively with computer specialists. Areas covered include hardware, software, information systems, systems development and communications. Hands-on experience (optional) with microcomputers involves use of application programs in word processing, spreadsheet and database management. The major applications areas are in business accounting.

106 Office Technology

106-102 Secretarial Workshop 2 credits
Students admitted to the Administrative Assistant-Secretarial program, who have a solid foundation of shorthand theory from a year of high school instruction, enroll in this course during their first semester. The workshop includes a review and refinement of shorthand theory, study of language arts fundamentals, pre-transcription work, speed development, and dictation-transcription. The end-of-semester minimum speed requirement for three-minute dictation is 60 wpm.

106-103 Filing Procedures 1 credit
This course covers the rules for filing records alphabetically. Also, the geographic, numeric, and subject methods of records storage are discussed. Basic filing supplies and equipment are studied. Procedures for inspecting, indexing, coding, cross-referencing, sorting, and filing records are applied. Procedures relating to requisitions, charge out and follow-up systems to retrieve records are also studied. Computerized filing terminology is included.

106-105 Records and Information Management 3 credits
This course deals with the role of the records manager and the science of controlling and managing records/information within an organization from creation, distribution, utilization, retention; storage, retrieval, protection, and preservation, to final disposition. The integration of related information technologies and current issues in records management are also studied. Prerequisite: 106-103 Filing Procedures.

106-111 Shorthand I (Theory) 4 credits
The goals for the first semester of shorthand include learning the theoretical principles of Gregg shorthand, joining of symbols, correct writing techniques, proportion, mastering brief forms and phrases, dictation skill building, and pre-transcription skills (rapid reading, basic punctuation, grammar, spelling). The minimum end-of-semester speed requirement for two-minute, new matter dictation is 50 wpm.

106-113 Shorthand 2 (Speed Development) 3 credits
The second semester of shorthand provides for the reinforcement of shorthand theory, phrases, brief forms, and geographic names; accurate and rapid reading; and intensive speed development. Transcription skills (spelling, punctuation, word usage, number expressions, capitalization, possessives/plurals, and letter/memo formats) are emphasized and applied during mailable-letter development. The minimum three-minute dictation speed for students entering the course is a minimum of 60 wpm; students entering the course from Shorthand Workshop have a minimum speed of 70 wpm. Prerequisite: 106-111 Shorthand I or 106-102 Shorthand Workshop.

106-115 Shorthand 3 (Transcription) 3 credits
Content for the third semester of shorthand includes continued shorthand theory refinement, increased reading ability, an introduction to expert shorthand, dictation speed development, improved decision-making and increased transcription skills, and further refinement of mailable letter production. The minimum three-minute dictation speed for students with no previous shorthand instruction prior to MATC enrollment is 80 wpm; students previously enrolled in Shorthand Workshop have a minimum speed of 90 wpm. Prerequisites: 106-111 Shorthand I or 106-102 Shorthand Workshop and 106-113 Shorthand 2.

106-116 Shorthand 4 (Administrative Dictation) 3 credits
The major emphasis during the final semester of shorthand is to record dictation at a speed acceptable for employment and to transcribe the dictation into mailable copy. This is achieved through increased dictation/mailable-letter production involving various types of office documents, advanced situations of office-style dictation, increased usage of reference materials, and specialized projects. The minimum end-of-semester speed for three-minute dictation is 100 wpm. Prerequisites: 106-111 Shorthand I or 106-102 Shorthand Workshop, 106-113 Shorthand 2 and 106-115 Shorthand 3.

106-122 Medical Shorthand I 4 credits
This course is designed to build a medical shorthand vocabulary to develop dictation speed on familiar and unfamiliar medical material, to transcribe medical dictation rapidly and accurately into usable letters and reports, to reinforce spelling and understanding of medical terminology, and to become familiar with terminology related to various medical specialties. Prerequisites: 106-111 Shorthand I and 106-113 Shorthand II.

106-123 Medical Shorthand II 4 credits
This is a continuation of 106-122 Medical Shorthand I.

106-124 Advanced Shorthand Workshop I 2 credits
This course is an extended-day shorthand class which fulfills the requirement for 106-115 Shorthand III. Credit for work experience may be given for the two-credit deficiency between the courses. Prerequisite: 106-113 Shorthand II or job experience.

106-130 Court Reporting Procedures 3 credits
Professional court and conference reporting procedures necessary for successful employment in the shorthand reporting field are presented. Topics include: methods of transcription production, daily copy reporting, using general and legal reference materials, legal citations, professional standards and ethics, reporting technology such as videotaped depositions and computer-assisted transcription (CAT), operating a freelance reporting business, resume preparation, and reporting depositions, commission hearings, and business meetings.

106-131 Keyboarding 1 (Typing I) 3 credits
In this course, the typewriter/computer keyboard (alphabetic, numeric, and symbol keys) are introduced along with development of speed and accuracy skills. Production typing focuses on basic letter styles, envelopes, centering, simple tables, outlines and reports with footnotes.

106-132 Typing Workshop Skillbuilding 2 credits
This nine-week course is designed to further develop speed and accuracy skills. Through diagnostic tests and analyses, each individual's typing weaknesses are identified and problem areas solved through corrective or developmental practice. Typing techniques are perfected, enabling the individual to eliminate errors and build speed. Prerequisite: 106-131 Keyboarding I.

106-133 Document Processing 2 (Typing II) 3 credits
This is an intermediate course designed to improve straight-copy speed and accuracy as well as refine knowledge and skill to successfully type general business correspondence, tables, manuscripts or reports and office forms. At locations with computers, the course is taught using WordPerfect word processing software. Prerequisite: 106-131 Keyboarding I or previous typing experience.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>106-135</td>
<td>Typewriting I</td>
<td>2</td>
<td>This course is designed for non-secretarial students. Keyboard mastery and control, knowledge of machine parts, simple tabulation, centering and letter set-up are emphasized.</td>
</tr>
<tr>
<td>106-136</td>
<td>Typewriting II</td>
<td>2</td>
<td>This is an intermediate course to develop speed and accuracy in typewriting and training in letter placement, tabulation, manuscripts, office forms and rough draft material. The range of typing speed is from 35 wpm to 55 wpm and up on a five-minute timing with a maximum of five errors. Prerequisite: 106-135 Typewriting I.</td>
</tr>
<tr>
<td>106-138</td>
<td>Document Processing 3 (Typing III)</td>
<td>3</td>
<td>This advanced course utilizes a variety of WordPerfect features and applications to produce marketable work at marketable speeds and improve decision-making and priority-setting abilities. Learning modules include skill development; advanced principles of tabulation, correspondence, manuscripts/business reports, and business forms; an introduction to machine transcription; and further training in language arts fundamentals. The final straight-copy speed for a five-minute timing with five or fewer errors is a minimum of 50 wpm. Prerequisite: 106-133 Document Processing II or its equivalent.</td>
</tr>
<tr>
<td>106-140</td>
<td>Shorthand II</td>
<td>2</td>
<td>In this course, an emphasis is placed on the reinforcement of shorthand principles and the continued development of shorthand speed. Spelling, punctuation, letter placement and dictation-transcription under timed conditions are emphasized. The final dictation speed is a minimum of 80 wpm for students entering the course from 106-111 Shorthand I. Prerequisite: 106-111 Shorthand I.</td>
</tr>
<tr>
<td>106-142</td>
<td>Court and Freelance Reporting</td>
<td>3</td>
<td>Students learn the procedures, practices and legal terminology of courts. Heavy emphasis is on court structure and pre-trial procedures.</td>
</tr>
<tr>
<td>106-143</td>
<td>Court Reporting 1</td>
<td>5</td>
<td>This is a basic introduction to machine shorthand, covering theory, keyboard and phonetics necessary for machine dictation and transcription.</td>
</tr>
<tr>
<td>106-144</td>
<td>Court Reporting 2</td>
<td>6</td>
<td>This course provides dictation materials for reinforcement of machine shorthand theory and abbreviations, for speed and accuracy development in writing and transcribing, and for extensive readback of shorthand notes. Extensive practice on two-voice testimony and an introduction to colloquy, jury charge, and literary materials is offered. Outside-of-class machine practice is required. Prerequisite: 106-143 Court Reporting 1 (minimum writing speed of 80 wpm).</td>
</tr>
<tr>
<td>106-145</td>
<td>Court Reporting 3</td>
<td>3</td>
<td>This course continues the speed building process. Material from courtroom proceedings and depositions is used to build writing vocabulary. The emphasis is on writing two- and four-voice testimony. Speed attainment of 200 wpm is the goal. Prerequisite: 106-144 Court Reporting II.</td>
</tr>
<tr>
<td>106-146</td>
<td>Court Reporting 4</td>
<td>3</td>
<td>This course is a continuation of 106-145 Court Reporting III. The objective of the course is to write 225 wpm for five minutes on unfamiliar material with at least 95 percent accuracy. Graduation from the program requires the following writing speeds: two-voice, 225 wpm; four-voice and jury charge, 200 wpm; and literary, 180 wpm (five-minute takes with 95 percent accuracy). Prerequisite: 106-145 Court Reporting III.</td>
</tr>
<tr>
<td>106-147</td>
<td>Legal/Technical Reporting 1</td>
<td>3</td>
<td>This course introduces specialized practice in writing and transcribing legal material (jury charges, voir dire, expert witnesses, and opening and closing statements) and technical material (literary, congressional and scientific). Writing technical material for fluent and accurate readback is stressed.</td>
</tr>
<tr>
<td>106-148</td>
<td>Legal/Technical Reporting 2</td>
<td>3</td>
<td>This course involves advanced skill development in writing and transcribing jury charge and literary materials and an introduction to medical dictation and transcription. Graduation from the program requires the following writing speeds: jury charge, 200 wpm and literary, 180 wpm (five-minute takes with 95 percent accuracy). Prerequisite: 106-147 Legal/Technical Reporting I.</td>
</tr>
<tr>
<td>106-150</td>
<td>Administrative Office Procedures</td>
<td>3</td>
<td>Among the topics covered in this course are the functions of an office, an executive and a secretary; secretarial ethics; non-verbal communications, processing incoming and outgoing mail; telephone procedures; travel and meeting arrangements; professional growth, time management; sources of information; and, secretarial decision-making and problem-solving.</td>
</tr>
<tr>
<td>106-151</td>
<td>Court Reporting Internship</td>
<td>3</td>
<td>In this course, advanced students take dictation in court situations with the assistance and guidance of a qualified reporter. Student performance and work is evaluated by a working reporter. Internship placement requires attainment of 200 wpm writing speed on two-voice testimony material.</td>
</tr>
<tr>
<td>106-152</td>
<td>Court Reporting Transcription</td>
<td>2</td>
<td>Transcription for court reporters focuses on the development of the following minimum requirements: straight copy typing speed of 60 wpm net, transcript production of 10 pages of typed transcript (Q&amp;A) in two hours with at least 95 percent accuracy, and proficiency in transcription mechanics (format, spelling, punctuation, style, proofreading and homophones).</td>
</tr>
<tr>
<td>106-153 CAT (Computer-Assisted Transcription) Systems</td>
<td>3</td>
<td>This advanced court reporting course uses the Vertical Software System to transcribe stenographic notes. Each student is required to compile his/her individual global dictionary for use upon graduation from the program. Lecture/discussion groups center around such topics as CAT management, real-time translation, reporter technology, and CAT vs. E.R.</td>
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<tr>
<td>106-154</td>
<td>Machine Shorthand Workshop</td>
<td>3</td>
<td>This course is required during the summer prior to entering the third semester of the court and conference reporting program. The major emphasis of the summer workshop is intense speed and accuracy development on a variety of materials. Opportunity is provided to utilize word processors and computers for transcript production.</td>
</tr>
<tr>
<td>106-155</td>
<td>Court Reporting Terminology</td>
<td>1</td>
<td>This course provides a background in basic legal terminology. Included are the correct spelling, pronunciation and definition of legal terms presented. In addition to general legal terms, specific areas of law covered are civil actions, criminal law, probate, real property, contracts, domestic relations, commercial paper and bankruptcy.</td>
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<tr>
<td>106-163</td>
<td>Micro Keyboarding</td>
<td>2</td>
<td>This course covers the use of the microcomputer to teach keyboarding (beginning typewriting). With the use of software, the keyboard is mastered, speed and accuracy are developed and letter and report formats are introduced.</td>
</tr>
<tr>
<td>106-170</td>
<td>Medical Document Processing 1 (Medical Typing I)</td>
<td>3</td>
<td>This course is designed to introduce medical secretary students to the terminology and principles of health insurance and the procedures for coding for professional services and diagnoses. Students type insurance claim forms and related medical forms from case study information applying proper abstracting, abbreviating and coding techniques. Students also work to continue developing typewriting speed and accuracy skills. This course uses the competency-based approach to learning. Keyboarding knowledge required. If the student has had no previous typewriting, 106-131 Keyboarding I should be taken first semester and 106-133 Document Processing II should be taken second semester.</td>
</tr>
<tr>
<td>106-171</td>
<td>Medical Document Processing 2 (Medical Typewriting II)</td>
<td>3</td>
<td>This course is designed to contribute to the preparation of the student for a beginning position as a medical secretary. This course introduces medical transcription as it is used in the hospital setting. The course work is</td>
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</table>
106-172 TO 106-313 COURSES

designed to reinforce medical terminology and to acquaint the student with terminology contained in a variety of medical reports. In addition, related grammar skills necessary for successful transcription are reviewed. Development of keyboarding speed and accuracy continues through the use of drills and timed writings. Prerequisite: 106-170 Medical Document Processing I.

106-172 Applied Business Training 3 credits
This course covers the fundamental principles and practices used in office management. It includes a study of practical experience in the following: written and non-written communications, information processing, meetings and conferences, ergonomics, filing and records management, decision procedures, office automation, telecommunications, repotgraphy, and distribution of information.

106-173 Medical Document Processing 3 credits
[Medical Typewriting III] 3 credits
This course stresses medical-office production typing including a medical office simulation, advanced medical transcription material, and material dictated by foreign doctors. The emphasis of this course is on practicing efficient typing skills, refining transcription skills, sharpening ability to quickly and correctly follow directions, and prioritizing work in order to meet deadlines. Prerequisite: 106-171 Medical Document Processing II.

106-180 Applied Word Processing 3 credits
This course is designed to develop skills in operating word processing equipment. Students receive training in machine transcription, using medical materials, and on automated typewriters. Students also become familiar with the workflow and logging procedures used in a word processing center. Emphasis is on building a firm foundation in medical transcription skills using automated equipment.

106-182 Information Processing Concepts 3 credits
This course is designed to provide an introduction to computers and information processing for students desiring to learn what a computer is, how a computer functions, how a computer is controlled, and how a computer is applied to the solution of business and related problems in a modern society. Computer-related occupations are also discussed.

106-183 Information Processing Techniques I 2 credits
This course is designed for first-semester students enrolled in the Administrative Assistant-Information Processing associate degree program. Basic, intermediate and advanced instruction is given using WordPerfect 5.1 software on a microcomputer system. Students learn basic level operations such as how to log on to the system, keyboard to create documents, make revisions, store text, recall and edit text, and print text. The course proceeds to more advanced functions of WordPerfect such as document merge, document assembly, and sort.

106-184 Information Processing Techniques II 2 credits
This course is designed for second-semester students enrolled in the Administrative Assistant-Information Processing program. The most commonly used DOS commands, as well as hard disk commands, are mastered. Students learn basic level spreadsheet operations using Lotus 1-2-3, database management using dBase III Plus, advanced word processing operations using WordPerfect 5.1, and transfer of files from one software application to another. Prerequisite: 106-183 Information Processing Techniques I.

106-185 Information Processing Management 3 credits
Emphasis is on understanding and applying management skills to information processing operations in an organization. Content includes the responsibilities of IP managers and supervisors, feasibility studies, system design, equipment selection, center layout and environment, implementation and system evaluation, writing procedures, budget preparation, selection and training of personnel, productivity standards and evaluation, and management of operations.

106-186 Information Processing Affiliation 2 credits
This structured course encompasses all areas required for successful job application and maintenance. In addition, it provides a training program that allows the student to observe and apply, in a practical manner, the theory, skills and techniques studied in the Administrative Assistant-Information Processing program. During the final semester of study, the student works in an approved word processing center under the supervision and guidance of a word processing supervisor and teacher-coordinator.

106-187 Integrated Office Techniques 3 credits
This fourth-semester course provides training on sophisticated information processing functions such as Wang Office, Glossary, and Decision Processing using the Wang VS 65 System. Prerequisite: 106-188 Information Processing Techniques III.

106-188 Information Processing Techniques III 2 credits
Students learn to set up the system, keyboard to create documents, do minor correcting and proofing, store and file text, recall and retrieve text, and print text using the Wang VS 65 Computer. More advanced applications include archiving, merging print, setting library prototype, using WP Plus Styles, references and author aids, math, and glossary applications. Prerequisite: 106-184 Information Processing Techniques II.

106-195 Career Development/Internship 2 credits
This course guides Administrative Assistant-Secretarial majors through the career planning process. The coursework begins with self-analysis and continues through the job search: information sources, resume, cover letter, application process, interviewing, follow-up, and job success. Emphasis is placed on the ability to produce accurate, correctly formatted transcripts of dictated communications in an efficient manner, using correct spelling, punctuation, and grammar principles. The student is also required to prioritize work in order to meet specific deadlines.

106-196 Machine Transcription 2 credits
This course is designed to give students experience in transcribing a wide variety of realistic, typical communications from business organizations and government agencies. Emphasis is placed on the development of the ability to produce accurate, correctly formatted transcripts of dictated communications in an efficient manner, using correct spelling, punctuation, and grammar principles. The student is also required to prioritize work in order to meet specific deadlines.

106-197 Medical Secretary Internship 2 credits
This structured course encompasses those areas required for successful job application and maintenance. In addition, it provides a training program that allows the student to observe and apply, in a practical manner, the theory, skills and techniques studied in the Medical Secretary program. The student completes a three-week affiliation in an approved medical facility under the supervision and guidance of a teacher-coordinator and a cooperating, experienced medical secretary.

106-303 Filing Procedures 1 credit
This course covers the rules for filing alphabetically and the geographic, numeric and subject methods of records storage. Basic filing supplies and equipment are studied. Procedures for inspecting, indexing, coding, cross-referencing, sorting and filing records are applied. Procedures relating to requisitions, charge out, and follow-up systems to retrieve records are also studied. Computerized filing terminology is included.

106-309 Shorthand I 3 credits
This is an introductory course in beginning Gregg shorthand with an emphasis on brief forms. The student is expected to achieve 50 wpm by the end of this course, which includes dictation and transcription. Basic letter styles and placement are introduced.

106-306 Office Procedures 2 credits
This course incorporates the knowledge of basic office procedures with the skills required to perform effectively in the changing office environment. Emphasis is placed on the efficient performance of office functions and tasks in conjunction with the use of up-to-date office technology, good human relations skills, and effective communication skills so as to perform as a successful office professional.

106-313 Shorthand II 3 credits
For students who have completed the theory of shorthand, this course includes a review of theory and principles, extensive speed development, instruction in language skills and elementary dictation and transcription. Dictation speeds range from 60 to 100 wpm. Prerequisite: 106-305, Shorthand I.
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<th>COURSES 106-316 TO 106-376</th>
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**106-315 Stenography** 3 credits  
This advanced course is designed to increase shorthand vocabulary, speed development, build dictation and transcription skills, and to provide further training in language skills. Dictation speeds range from 70 to 110 wpm. Prerequisite: 106-313 Shorthand II or equivalent experience.

**106-319 Legal Transcription I** 3 credits  
Spelling, grammar, punctuation, number expression and capitalization are reviewed at the beginning of this course. Practice transcription applying these principles is provided. Students then transcribe simple legal documents and correspondence, which gradually increase in difficulty. Language skills are emphasized throughout.

**106-320 Legal Transcription II** 3 credits  
This course is devoted entirely to the transcription of legal correspondence and documents from dictated tapes in various areas of the law. Appeal briefs with citations are included. Legal applications of spelling, grammar, punctuation, number expression and capitalization are reviewed. Legal document formats and terminology are included. Prerequisite: 106-319 Legal Transcription I.

**106-328 Legal Transcriptionist Office Procedures I** 2 credits  
This course covers the functions of an office, an executive and a secretary; legal and secretarial ethics; notaries public and legal document fundamentals; incoming and outgoing mail processing; time management; filing; and civil procedures. Students also gain practice in secretarial decision-making and problem-solving. Some field trips may be included.

**106-329 Legal Transcriptionist Office Procedures II** 2 credits  
This course is a continuation of 106-328 and emphasizes legal procedures and terminology in specialized areas such as family law, probate and real estate. Field trips to courts and county support offices such as clerk of courts and register of deeds may also be included. Prerequisite: 106-328 Legal Transcriptionist Office Procedures I.

**106-331 Keyboarding 1 Typing I** 3 credits  
For persons desiring to learn the touch system of typewriting, this course covers parts of the machine, mastery of the keyboard, drills for rhythm and accuracy, correct typing habits, simple letter set-up and tabulation, and timed writings.

**106-333 Keyboarding Applications 2 Typing II** 3 credits  
Training is given in typing mailable letters from rough draft copy with correct punctuation, capitalization and spelling to be added by the typist. Drill is given on tabulating from rough-draft copy. Practice is provided on various office production forms and typing manuscripts from rough draft and longhand copy. Prerequisite: 106-331 Keyboarding I.

**106-334 Machine Transcription** 2 credits  
This course is designed to give students experience in transcribing a wide variety of realistic, typical communications from business organizations and government agencies. Emphasis is placed on developing the ability to produce accurate, correctly formatted transcripts of dictated communications in an efficient manner, using correct spelling, punctuation and grammar principles. The student is also required to prioritize work in order to meet specific deadlines.

**106-335 Keyboarding Applications 3 Typing III** 3 credits  
This course stresses proofreading and producing mailable copy at office rates of speed. Projects include typing for various departments—clerical, purchasing, sales, personnel, accounting, director of sales and director of office services. One quarter of this course is devoted to transcribing from machines. Prerequisite: 106-333 Keyboarding Applications II.

**106-337 Keyboard Skillbuilding** 2 credits  
This nine-week course is designed to further develop speed and accuracy skills. Through diagnostic tests and analyses, each individual's typing weaknesses are identified and problem areas solved through corrective or developmental practice. Typing techniques are perfected, enabling the individual to eliminate errors and build speed. Prerequisite: 106-331 Keyboarding I.

**106-340 General Typewriting** 2 credits  
To accommodate the adult refresher student, this course stresses speed and accuracy and the development of typewriting skills. Letter-writing, tabulations and timed writings are included in the instruction. Students with less than one semester of previous instruction should consider registering for Typewriting I.

**106-349 Medical Document Processing I (Medical Typing I)** 3 credits  
This course introduces students to the terminology and principles of health insurance and the procedures for coding professional services and diagnoses. Students type insurance claims forms and related medical forms from case study information, applying proper abstracting, abbreviating and coding techniques. Students also continue developing typewriting speed and accuracy skills. This course uses the competency-based approach to learning. Keyboarding knowledge is required.

**106-349 Medical Document Processing II (Legal Typing II)** 3 credits  
This course is designed to review general typing principles and to begin legal document production. Units on intensive skillbuilding, correspondence, tabulation, reports and forms are included. Proofreading and language skills are also emphasized.

**106-350 Legal Document Processing 2** 3 credits  
Advanced speed and accuracy building are included as well as legal document preparation from standard forms and master information lists. Students compose simple legal documents such as affidavits, summons and motions. Emphasis is continued on proofreading and language skills. Prerequisite: 106-349 Legal Document Processing I.

**106-365 Medical Office Procedures** 2 credits  
This 14-week course develops skills for use in a medical office. It is designed to give students fundamental knowledge in the following areas: patient reception, appointment scheduling, recordkeeping, filing, entering daily transactions, billing and collecting, handling procedures, preparing payroll, preparing some government forms, handling routine business correspondence, keeping an inventory of supplies, and an introduction to some of the features in an automated or electronic office situation.

**106-367 Medical Transcription** 3 credits  
This course is designed to introduce the student to machine transcription of medical materials. Emphasis is placed on efficient transcription techniques, recognition of key medical terms, correct spelling and punctuation, and specialized formats for medical reports.

**106-368 Medical Transcription II** 3 credits  
This is an advanced course in which the student transcribes material from doctors with a variety of foreign accents. Emphasis is placed on intensive skillbuilding of dictated communications. Legal transcription techniques. Students also continue developing typewriting speed and accuracy skills. This course uses the competency-based approach to learning. Keyboarding knowledge is required.

**106-369 Medical Transcriptionist Internship** 2 credits  
This is a structured course encompassing those areas required for successful job application and maintenance. In addition, it provides a training program that allows the student to observe and apply, in a practical manner, the theory, skills and techniques studied in the Medical Transcriptionist Program. The student completes a three-week affiliation in an approved medical facility under the supervision of a teacher-coordinator and a cooperating, experienced medical transcriptionist.

**106-375 Job Survey/Legal Transcriptionist Internship** 1 credit  
This course provides information on law office job openings and how to apply for them. Also included are resume, application letter, and other job hunting document preparation. One-third of the course grade is based on completion of a three-week internship in a law office.

**106-376 Job Survey** 2 credits  
This course assists students in assessing their backgrounds and job aspirations, as well as in developing positive self-images. Students learn techniques for planning and organizing their job search; preparing resumes, cover letters and applications for employment; developing successful interview and follow-up skills; and performing successfully on the job.
106-381 Information Processing Operations 3 credits
Introductory and advanced levels of word processing techniques are taught. Students learn all basic and intermediate level competencies in inputting, editing, storing, filing, retrieving and printing. Prerequisite: keyboarding skills.

107-110 Computer Operations II 3 credits
This course is a continuation of 107-112, Computer Operations I, expanded to a broader scope dealing with the operation of an entire data center. Classroom time is spent studying operating system concepts (including IBM's MVS operating system), data communications, "OS" job control language, MVS utilities, data center security, contingency planning, equipment and facilities planning, data center management perspectives, magnetic disk, and the CPU. Lab time is spent studying and using IBM MVS JCL and IBM MVS Utilities. Prerequisites: 107-112 Computer Operations I and 107-113 Computer Concepts, or consent of instructor. A grade of "C" or better in all data processing (107) courses is required.

107-111 Programming I 4 credits
This course is an introduction to the fundamentals of the computer programming development process, involving problem analysis, program planning, coding, debugging and testing. IBM System 370 Assembler Language is used for the programming assignments. This is a rigorous course for data processing majors which requires extensive work outside of class (approximately 15 hours per week). Prerequisite: completion or concurrent enrollment in 107-133 Data Processing Techniques. In addition, completion or concurrent enrollment in 107-113 Computer Concepts, or equivalent experience, is advised.

107-112 Computer Operations I 3 credits
This is a hands-on course dealing with the concepts and principles of medium-scale computer system operations in a multi-programming and data communications environment. Console operations and input/output peripheral operations are studied and practiced. MATC's mainframe computer is used for hands-on operation. Lab time is spent studying and using IBM MVS JCL and Utilities. Prerequisites: 107-113 Computer Concepts, and 107-111 Programming I, or consent of instructor. A grade of "C" or better in all data processing (107) courses is required.

107-113 Computer Concepts 3 credits
This first course for data processing majors is designed to prepare the student for further courses in computer data processing, operations and programming. Emphasis in this course is on data processing terminology, hardware, software, data representation, systems analysis and design, procedures, personnel, program design and social issues affected by computers. The learner is introduced to microcomputers and uses some micro applications software.

107-117 Systems Analysis and Design I 3 credits
This course provides practical, introductory-level design experience within three fundamental business application modes: batch sequential access, batch random access, and on-line random access. It aims for the integration of record design, input document design, report and screen design, file maintenance, table access, retrieval/reporting, codes, controls, and embedded keys in variable-length records for the formation of information application systems. The course includes presentations of design plans in both text and diagrammatic format. Prerequisite: a grade of "C" or better in 107-111 Programming I, and completion of or concurrent enrollment in 107-123 Programming II (for Programming majors) or 107-129 Programming V (for Operations majors).

107-120 Operating Systems, Services and Facilities 3 credits
This course studies the structure and organization of the MVS Operating System, and how to work with it. Upon completion of this course, the student should have a working knowledge of IBM MVS Job Control Language, an understanding of the program preparation process, be able to use some of the IBM utility programs, have the skill of using IBM diagnostic aids, and be able to use ISPF/PDF. Prerequisite: a grade of "C" or better in 107-124 Programming III.

107-123 Programming II 4 credits
This course offers a detailed study of the features and application of ANS COBOL in a business data processing environment. Intermediate COBOL programming techniques, structured program design, structured walkthroughs, table loading and searching, the SORT verb, decision trees, elementary dump reading, and both sequential and indexed sequential (VSAM KSDS) access methods are studied and applied over the course of six programming projects. A brief introduction to IBM JCL and IDCAMS utility is also included. Prerequisite: a grade of "C" or better in 107-111 Programming I.

107-124 Programming III 4 credits
This is a course in structured program development. Students are required to design, code and test three large batch applications (a report program, a sequential update and an edit). Major topics of study include: the theory of structured design, structured programming strategies, tools for logical analysis, table processing, testing strategies and multi-program structures. Prerequisites: 107-123 Programming II and a grade of "C" or better in all data processing courses.

107-127 Programming IV 4 credits
This required course features the concepts, facilities and application of mainframe Database Management Systems (DBMS) and a fourth generation programming language (currently ADABAS/DBMS and NATURAL 2) in a business environment. The course studies DBMS components of two contrasting systems and requires the completion of several programming projects. Various DBMS occupations are also covered. Prerequisites: 107-124 Programming III and 107-130 Systems Analysis and Design II, or consent of instructor. A grade of "C" or better in all data processing courses is required.

107-129 Programming V 4 credits
This is a study and practice of the RPG programming language, with an introduction to the basics of COBOL. This course is required for the Data Processing-Computer Operations degree. Prerequisites: 107-111 Programming I, or consent of instructor. A grade of "C" or better in all data processing courses is required.

107-130 Systems Analysis and Design II 3 credits
This course introduces the student to the full cycle of systems design and development activities grouped into five phases: problem definition, detailed investigation and analysis, systems design, systems development and system implementation and evaluation. This is a competency-based theory and practice course using team and independent projects. CASE software is utilized as a design tool. Prerequisites: 107-117 Systems Analysis and Design I and 107-123 Programming II. A grade of "C" or better in all data processing courses is required.

107-131 Programming VI 3 credits
This course is a study and practice of the RPG programming language. Topics emphasized include control break reports, multiple input records, input validating, tables and arrays, and sequential files. Prerequisites: 107-111 Programming I, or consent of instructor. A grade of "C" or better in all data processing courses is required.

107-132 Programming VII-CICS. 3 credits
This course introduces CICS (Customer Information Control System) and teaches how to develop effective interactive COBOL programs using command-level CICS. The four most common interactive programs— inquiry, data-entry, file-maintenance, and menu—are studied. Prerequisite: a grade of "C" or better in 107-124 Programming III, or consent of instructor.

107-133 Data Processing Techniques 3 credits
This course introduces students to the basic techniques for designing structured programs. Additionally, the student learns computer number systems (base 2, base 16), data representation (packed decimal, binary, EBCDIC, and ASCII formats), program design tools, and program structure. Prerequisite: concurrent enrollment in 107-111 Programming I, is advised.
107-135 Programming VIII-CICS II 3 credits
This course presents advanced features of command-level CICS (Customer Information Control System) using COBOL. Advanced features emphasized include browsing, alternate index processing, temporary storage, transient data, message building, extended attributes and terminal control. Prerequisite: 107-132 Programming VII, or consent of instructor.

107-136 Programming IX-SAS 3 credits
This elective course introduces the application of the Base SAS (Version 6) software in a business information systems environment. The course covers data transferring, selecting, grouping, reorganizing and joining within DATA steps, while also emphasizing the more common PROC REPORT and summarizing tools. Management of SAS system options and SAS libraries is also included. Sample SAS programs are in the course library for modeling and active learning. The accomplishment of a number of programming assignments on the MATC mainframe is required. Completely optional enhanced-learning experience materials are also available on such topics as customized reports from DATA steps, macros, Proc Tabulate, Proc SQL and Proc Format. Note: SAS is a registered trademark of SAS Institute, Inc., Cary, NC, USA. Prerequisite: a grade of "C" or better in 107-111 Programming I, or a grade of "B" or better in any three-credit programming course which provided knowledge of hex notation, internal formats for numbers in business applications (zoned decimal and packed), sorting via the EBCDIC collating sequence, and control break logic.

107-138 Computer Operations Internship I 5 credits
This is the first of two on-the-job experiences with instructor supervision in systems analysis as junior programmers for 160 hours and complete typical production processing courses. Prerequisites: 107-124 Programming III and 107-130 Systems Analysis and Design II, as well as a "C" or better in all required data processing courses.

107-139 Computer Operations Internship II 5 credits
This second internship course provides work experience in a large, complex data center that offers a broad spectrum of mainframe processing modes. The student intern spends about 20 hours per week at the internship site. Prerequisites: 107-113 Computer Concepts, 107-129 Programming V, and 107-112 Computer Operations I, or consent of instructor. A grade of "C" or better in all data processing courses is required.

107-140 Microcomputer Software 3 credits
This course introduces the student to software packages used on the IBM and IBM-compatible microcomputers. The student learns to use various software tools to solve data processing problems. The DOS operating system and dBASE III+ are studied. Upon successful completion of this course, the student will be able to select and use the appropriate PC-DOS commands needed to manage a microcomputer's resources, and define, analyze and implement data processing applications using dBASE III+, both in interactive dot prompt mode and by programming. Prerequisite: a grade of "C" or better in 107-137 Systems Analysis and Design I.

107-170 Data Processing Internship (Programming) 3 credits
Students complete a training internship. They work under normal supervision as junior programmers for 160 hours and complete typical production programs. Prerequisites: 107-124 Programming III and 107-130 Systems Analysis and Design II, as well as a "C" or better in all required data processing courses.

109-101 Introduction to Leisure Services 3 credits
This course covers the structure, purposes, functions and inter-relationships of private, public, semi-private and commercial recreational agencies. Trends and career opportunities in tourist recreation and resource operation are also included.

109-103 Recreation and Leisure in Modern Society 3 credits
This course explores the history, development, nature, significance and relationship of leisure and recreation in today's world. The psychology of recreation demand and supply, as well as the characteristics of group leisure, are also examined.

109-106 Programming and Public Relations 3 credits
This course emphasizes planning, organizing, conducting and evaluating recreation programs. Support systems and public relations in private, public and commercial agencies are also examined.

109-107 Recreation Safety 2 credits
This course combines both the didactic and practical content of the American Red Cross's "Standard First Aid" course and the American Heart Association's "Basic Life Support" course. In addition, it provides training in more advanced emergency care techniques for emergencies more likely to be encountered by recreation and tourism professionals. Upon successful completion of this course, students receive certification in Standard First Aid (from the Dane County Chapter of the American Red Cross) and in Basic Life Support (from the American Heart Association—Wisconsin Affiliate).

109-110 Professional Issues in Recreation 2 credits
This course is designed to expose recreation and tourism students to a variety of problems in the social, economic, philosophical and technological dimensions of recreation service provision. The course emphasizes analytical thinking and class participation.

109-115 Recreational Resource Management 3 credits
An overview is presented of the development of management theory and practice. Such theories as scientific management, human relations management, Theory X and Theory Y, systems analysis and contemporary management are reviewed. The manager's role and functions are examined in relationship to organizational structure, employee relations, motivation, leadership, marketing and budgeting.

109-120 Commercial Tourism Business 3 credits
This course is an examination of the historical development and growth of profit-oriented commercial recreation. An overview of the tourism and travel industries is followed by focusing on starting, marketing and managing a recreation enterprise. All students are required to create their own commercial recreation business plans. Trends in recreation and their implications for the future are also investigated.

109-124 Food Preparation Management 2 credits
This course surveys basic food preparation principles and techniques for the student (non-chef) preparing for hotel or restaurant management. Students successfully completing the course should have an understanding of how to prepare basic menu items using a variety of methods and equipment. In addition, students should know basic principles of plate presentation, with attention to timing and coordination for actual service. Instructional methods include demonstrations and team teaching. Prerequisites: completion of 303-100 Food Science I is preferred.

109-125 Restaurant Management I 3 credits
This course emphasizes management style and theory and how they apply to differing situations encountered in the hospitality industry. Topics include leadership, communications, management objectives, personnel management, human resources development, motivation, decision making and the planning process. Prerequisite: 109-124 Restaurant Cost Control.
109-128 Introduction to Hospitality Management 3 credits
An introduction to management and the hospitality industry, this course serves as a foundation for the more specialized courses that follow. The first part surveys the industry, nationally and locally, and examines closely the two major components—hotels and restaurants. The second part provides an overview of the work hospitality managers do.

109-129 Hospitality Sales Promotion 3 credits
This course places special emphasis on the organization and function of hotel sales departments and the need for sales planning through analysis of the product, competitor, and the market. A variety of marketing tools and techniques are discussed, that focus on securing room, food and beverage, and group business. In addition, special treatment is given to various promotional techniques and concepts as they pertain to the food and lodging industries, including advertising, consumer demand and merchandising. Prerequisite: 104-102 Marketing Principles and 104-104 Selling Principles, or consent of instructor.

109-130 Tourism Marketing 3 credits
This course is a practical application of basic marketing principles to the tourism industry. Students learn target marketing, travel product positioning, creative marketing strategies, personal selling, and how to identify travelers' needs.

109-131 Front Office Management 3 credits
This course emphasizes the management and public relations responsibilities of the front office staff. Instruction includes the principles of management as well as routine procedures and front office accounting techniques. In addition, there is an introduction to the changing technology in today's lodging operations as well as systematic interpersonal communication skills development. Prerequisite: 109-128 Introduction to Hospitality Management.

109-133 Beverage Merchandising 2 credits
This course is an introduction to management and to professional and responsible service and sales of beverages in bars, taverns, restaurants and lounges. The course is designed to develop an understanding of the means for effective and professional sales and responsible product knowledge of beers, wines and spirits; production techniques; sales forecasting; bar accounting; and effective pricing and cost control procedures. Prerequisite: student must be 21 years of age or obtain consent of instructor.

109-134 Restaurant Cost Control 3 credits
Restaurant Cost Control realistically prepares students to identify, apply and interpret the concepts and techniques of cost control in the hospitality industry. Upon successful completion of this course, students will be able to identify current relevant factors influencing the cost of operating a hospitality business; select and apply specific methods, procedures and systems to control costs; analyze these applications using theories and concepts discussed in class; and be able to forecast/prepare budgets, prepare income statements and complete a break-even analysis. Prerequisite: 102-102 Business Math or consent of instructor.

109-135 Recreation Activities 3 credits
Developmental activities are planned, implemented and evaluated. Activity areas include music, drama, games, dance, outdoor recreation, literature, travel, hobbies, voluntary activities, social and special events. Active participation and leadership are required.

109-136 Hotel and Restaurant Law 3 credits
This course provides a general awareness of the rights and duties which the law imposes upon and grants to the innkeeper, in addition to outlining the consequences caused by failure in those responsibilities. Current court decisions in the hospitality area are examined. Instruction includes status and responsibilities; accommodations and discrimination; theories of liability, torts and negligence; liability for condition of premises; liability of leased premises, product liability; liability for guests' property; labor law; and liens and evictions.

109-138 Lodging Environments 2 credits
The focus of this course is on the efficient design and upkeep of lodging properties by the housekeeping, maintenance and engineering departments. Lodging environments are designed with one thing in mind: to attract certain types of guests or markets. Each market has different needs and expectations in regard to aesthetics, amenities and prices. Management functions performed by these departments are examined throughout the course.

109-140 Field Survey 1 credit
Students investigate the fields in which they desire future employment. They then select a problem for study in this area. Sections of the course are individualized.

109-150 Management of Leisure Facilities 3 credits
In this course, consideration is given to the practical aspects of accounting and budgeting, work scheduling, personnel staffing, and management, as well as general planning and control of a leisure facility. Emphasis is on the application of management theory learned in previous classes.

109-155 Operation and Maintenance of Lodging Environment 3 credits
This course provides an introduction to land/site development, building and structure maintenance, and turf and grounds management; equipment acquisition and care, staff scheduling, work scheduling and budget control are also covered.

109-157 Hospitality Internship I 3 credits
Each student completing the degree program must include on-the-job experience in the hospitality industry component of choice. Requirements include fifteen hours per week of work in the field, a learning contract designed to maximize professional growth, seminar participation and leadership, and quarterly analytical papers. Enrollment in Internship is limited to students who have successfully completed two semesters in the Hospitality Management program.

109-160 Special and Social Recreation 3 credits
This course provides an overview of various special populations and an understanding of their needs, especially as they relate to recreational pursuits. Special populations studied include: the mentally retarded, youthful and adult offenders, the mentally ill, alcoholics and drug addicts, the physically disabled, the sensory impaired, the economically deprived, racial minorities, the aging, and troubled youth.

109-164 Travel Reservations 3 credits
This course gives the student a working knowledge of a simulated and live airline reservation computer system. It introduces the student to basic PNR (Passenger Name Record), construction and modification; the reading and utilization of fare displays; the basics of pricing and ticketing; and the analysis of material in the DRS (Data Retrieval System). Prerequisites: 109-128 Introduction to Hospitality Management, 109-166 Travel Agency Training, and 109-167 World Travel Geography.

109-165 Travel Agency Services 3 credits
This course presents sophisticated information about major segments of the travel industry .. cruises, tours, ground transportation, accommodations and air transportation. Evaluation of the different types of cruises and passengers is performed. The various aspects of tour development, sales and management are studied in detail. The course introduces students to how travel is sold in the marketplace, focusing on essential skills needed to close the travel sale. Office policies and procedures, money management and business communications are also covered.

109-166 Travel Agency Training 3 credits
This course introduces students to the actual production of airline and associated service tickets. The study of air services begins with the introduction of the Official Airline Guide (OAG), which features distance, minimum cost, flight itineraries and schedules. The course concludes with the explanation of airline reservation procedures and an emphasis on the production of actual tickets by hand. This course is critical to the understanding of ticketing procedures, and is a prerequisite to the student of online computer reservation systems introduced in 109-164 Travel Reservations.

109-167 World Travel Geography 3 credits
Geography is the study of our world. To learn more about this important subject, students use traditional approaches to study the seven continents, the world of water, the tilt of the earth and change of seasons and times. Students study maps of the world, learning how many people live in a country. Students explore each country as a potential destination, focusing...
about each country’s resources and attractions. The course also covers three major aspects of geography: locational, cultural and physical. Locational geography seeks answers to two questions: where is it and how do you get there. Cultural geography studies the division of the world into racial groups and contrasting societies, each with a culture that expresses itself in every facet of daily life. Physical geography investigates frequently asked questions, such as what is the weather like and when is the best time to go.

109-168 Travel Agency Operation 3 credits
Students gain real-life experience by working in the MATC Travel Center, which provides agency services to the students and staff of the college.

109-170 Interpreting the Leisure Environment 3 credits
This course concentrates on methods the individual interpreter can use to relate the natural history, cultural and recreational values of an area to its visitors. Various programs at parks, nature centers, outdoor education and other recreation facilities are studied and evaluated. Students examine various forms of interpretive media, as well as trail and facility design.

109-175 Recreation Internship 2 credits
This course is directly related to 150 hours of experience in the fields of recreation and tourism the student chooses as a desired job area. The course examines the student’s practical experience as well as hypothetical case studies from the viewpoint of decision making and problem solving. The class prepares the student to maximize the learning opportunities of the field experience.

109-176 Group Exercise/Aerobic Leadership 1 credit
This elective course encompasses a variety of teaching methods, including lectures, demonstrations, hands-on skill activities and special assignments. The class is for students interested in careers in the fitness industry. Trained group exercise instructors are in great demand; it is to be noted that these positions are the only way an individual may obtain an entry-level position within the fitness industry. The profession requires a person who demonstrates good leadership skills and the ability to motivate others.

109-190 Recreation Seminar 1 credit
This course is designed to assist the graduating student with job placement. The coursework involves self-evaluation of job-related skills, interests, attributes and achievements. The class reviews how to target job possibilities, write resumes and practice interviewing. The concept of job networking is also introduced.

194 Real Estate

194-175 Real Estate Investment 3 credits
This course is an in-depth introduction to the principles of real estate investment. The course compares real estate to other forms of investments and teaches students how to calculate the benefits and determine the disadvantages of owning real estate. Subjects covered include tax laws (current and past), creative financing, ownership forms, limited partnerships, management practices, practical contractual language, and the real estate exchange, in addition to several case studies. A real life course project is required wherein the student goes through the steps of acquiring an existing property and analyzing the potential success of the transaction.

194-180 Principles of Real Estate 3 credits
This course explores the economic considerations and organizations involved in the specialized area of real estate. The processes of planning sales programs and developing new markets are discussed, with emphasis on techniques for solving managerial problems.

194-182 Real Estate Law 4 credits
This course is designed to acquaint students with the Wisconsin Real Estate Law Manual, and to prepare them for the Wisconsin Real Estate Broker’s Examination. Topics include the law of agency, legal descriptions, legal real estate contracts, mortgages, land contracts, consumer protection laws, landlord/tenant laws, fair housing ordinances, and various other subjects related to the real estate profession. The course fulfills the educational requirement for the real estate sales license in Wisconsin.

194-184 Real Estate Finance 3 credits
This course analyzes various aspects of real estate finance with an emphasis on the type of instruments used, sources of funds, procedures involved, and the role of the federal government. The course includes numerous activities outside the classroom designed to demonstrate lending policies, problems and rules involved in financing and real property, including residential, multi-family, commercial and special purpose properties.

194-185 Real Estate Marketing 2 credits
The subject provides an ideal blend of theory and practice, permitting the study of sales planning, market analysis, and management of sales and service personnel, including selection, training and supervision. Case histories and problem solving techniques are utilized. The course fulfills the educational requirement for the real estate sales license in Wisconsin.

194-186 Real Estate Appraisal I 3 credits
This course presents the rudiments of residential appraising with an emphasis on the single-family home.

194-187 Real Estate Appraisal II 3 credits
A continuation of 194-186 Real Estate Appraisal I, this course explains the fundamentals and techniques of narrative report-writing with emphasis on market, cost and income approaches, and the many related problems.

194-188 Real Estate Planning and Construction 3 credits
This course investigates the sound development of new residential properties. The course also helps the homeowner and real estate agent to recognize and evaluate the construction details of residential properties.

194-190 Property Management and Development I 3 credits
This course prepares students to enter the property management industry or to manage their own property. It covers the rental, maintenance, bookkeeping and communication (analysis of economic trends affecting real estate) functions of property management and also takes a detailed look at commercial, low income and condominium properties. In addition, guest speakers are invited to speak about building codes, landlord/tenant laws and a variety of related topics. A semester project which analyzes an existing building’s management policy is a required part of the course.

194-191 Property Management and Development II 3 credits
This course is specifically designed to prepare those students interested in working as resident managers for apartment buildings. It may lead to the ARM (Accredited Resident Manager) designation as offered through the Institute of Real Estate Management.

194-192 Contemporary Issues in Real Estate Law 3 credits
This intermediate-level course reviews and updates approved forms, administrative rules and statutes related to real estate, as well as in related case law. Recent changes in public policy and in our economy are also discussed.

194-193 Contemporary Issues in Real Estate Appraisal 3 credits
This advanced course brings students up to date on current trends in appraisal theory and practice as well as recent changes in public policy.

196 Supervisory Management

196-100 Principles of Supervision 3 credits
This introductory course acquaints students with concepts and theories of management in order to improve organizational and individual effectiveness. The course explores the required knowledge, skills and abilities of all supervisory positions. The content, which is structured to apply to any type of organization, focuses on the application of management principles for the solution of job-related problems.

196-105 Occupational Trends and Issues 2 credits
This course provides students with an understanding of current trends affecting supervisors. The course uses a discussion forum to address the rapid changes that organizations are facing. Extensive use of outside speakers ensures that students stay on the forefront of managerial issues. Topics vary depending on new developments in the supervisory area.
196-110 Organizational Leadership 3 credits
This course is designed to identify effective leadership techniques, assess
individual strengths and weaknesses, and build specific leadership skills
which focus on the leader as communicator, team builder, goal setter,
teacher, problem solver and results achiever. Activities are conducted in an
informal atmosphere that stresses group interaction through the use of per-
sonal and professional situations for practical applications of concepts.

196-113 Personnel Practices 3 credits
This course provides an improved understanding of all organizational
members of the human resource-personnel management function. The
course aims to acquaint supervisors with techniques and concepts within
the personnel area that enhance organizational operating efficiency. Clear
understanding and proper administration of personnel policies and methods
assist in assuring that well-trained, well-motivated employees are available
to meet organizational goals and objectives, as well as promoting an
improved quality of worklife and employee satisfaction.

196-115 Improved Productivity through Process Control 3 credits
This course is designed to provide an understanding of the importance, cost
and selection of methods for the implementation of programs to improve
the quality of products, services, productivity and profitability. The course
is designed around three topic areas, including quality attributes, worker
participation in quality maintenance, and the actual implementation of pro-
cess control networks.

196-116 Managing Human Resources 3 credits
This course offers a detailed study of human behavior in the work place
and how this behavior affects organizations. It explores such areas as
morale, motivation, job satisfaction and productivity. Practical application
is emphasized through role playing, case studies and group discussion.

196-119 Labor/Management Relations 3 credits
This course provides supervisory understanding of the concepts, issues and
trends necessary to understand and effectively deal with labor unions. It
examines major pieces of legislation, with an explanation of present day
significance of laws and regulatory guidance existing within the labor man-
gagement relations area. Integration of actual grievance cases by the stu-
dents is encouraged, as well as a focus on current trends from actual
organizational settings.

196-122 OSHA and Hazardous Substances 1 credit
This course provides an elementary understanding of the Occupational
Safety and Health Act (OSHA); its coverage and purpose. The course
includes an overview of OSHA Standards, recordkeeping requirements and
other regulatory provisions necessary to ensure safe work environments
consistent with the law.

196-123 Morale and Workplace Ethics 1 credit
The course is designed to improve students' understanding of concepts and
principles related to business ethics and organizational morale issues. The
course focuses on the "why's" of dealing with others, as opposed to the
"how-to's." In-class exercises demonstrate situations involving morale
dilemmas, examine morality levels and clarify personal values, with the
aim of improved understanding for organizational effectiveness.

196-132 Making Meetings Work 1 credit
This course is designed to provide students with the necessary understand-
ing to conduct successful, cost-efficient meetings. It examines the required
parts and looks at specific types of meetings, as well as providing insight
into intergroup dynamics, such as handling problem participants in meet-
ings. It is involvement-oriented, with students learning through the conduct
and observation of meetings in the classroom.

196-135 Time Management 1 credit
The objective of this course is improvement of time management skills.
Its orientation is toward improving awareness of time expenditures and
obtaining tools which allow for more effective accomplishments within the
available time.

196-138 Management of Conflict and Change 1 credit
This course approaches conflict from a proactive management stance, in
that conflict should be identified, understood and managed for the well-
being of the organization. The course examines conflict as it relates to the
workplace, explores conflict concepts such as sources, management and
resolution; and looks at managing change effectively to reduce conflict.

196-141 Effective Listening 1 credit
This course provides management understanding of the communication
process with particular skills focused on listening. The course examines this
key process as related to managerial communication effectiveness.

196-145 Assertive Managing 1 credit
This objective of this course is to improve employee assertiveness skills. It
improves communication openness through participant recognition and
reduction of counterproductive aggressiveness or passiveness. It is
intended to improve organizational performance by removal of unproductive,
job-related behavior patterns.

196-148 Stress Management 1 credit
This course seeks to improve individual's abilities to recognize sources of
stress; it also suggests methods of effectively dealing with stress. Stress, a
hazard of many occupations, dealt with successfully can improve our rela-
tionships and performance both on and off the job.

196-151 Training Techniques 1 credit
This course is designed to acquaint students with the principles and meth-
ods for effectively training employees in business organizations. The
course is presented from the training viewpoint of the adult learner and
emphasizes on-the-job training. Students are involved in practical training
exercises, including the opportunity to develop a training objective and
receipt of feedback through a training evaluation.

196-154 Problem Solving and Decision Making 2 credits
This course is designed to sensitize students to the areas of decision mak-
ing and problem solving for use in their day-to-day lives. It includes the
development of a better understanding of the process of decision making,
techniques for better decision-making habits and proven theories to
improve the effectiveness of decisions.

201-103 Commercial Art

201-104 Drawing Fundamentals 3 credits
This course is a study of perspective, proportion, construction of solid
forms, and rendering in line and tone using a variety of art media.

201-105 Drawing Fundamentals 2 credits
This is an introductory drawing class emphasizing sound craftsmanship
and the study of basic freehand drawing skills. The course includes the
study of perspective, proportion, construction of solid forms, light and
shade, and rendering in line and tone with a variety of art media.

201-106 Illustration I 2 credits
Students develop a number of techniques in this course through assign-
ments directly related to spot illustration and product rendering. All work
is in black and white and designed for line reproduction.

201-107 Lettering-Typography 2 credits
This course covers the fundamentals of typography, how to execute layout
lettering in all styles, and how to specify type and copy cast. Emphasis is
placed on the structure and form of layout lettering and how it is used in
today's advertising art and design.

201-108 Typographical Design 2 credits
This is a continuation of 201-107 Lettering-Typography. The emphasis is
on typography and advertising layout. The use of type in graphic design
concepts is covered. Prerequisite: 201-107 Lettering-Typography.

201-111 Illustration II 2 credits
Assignments for this course are directly related to advertising and editorial
illustration utilizing local media and color. Individualized assignments
emphasize problem-solving and production of camera-ready art.
Prerequisite: 201-106 Illustration or equivalent.
201-113 Cartooning 2 credits
This course introduces the commercial art student to a very specialized area of the field, yet one in which an individual will very likely become involved at the average advertising agency or art studio. The simplicity of a good cartoon is deceptive in that it appears easy to do. The student learns that simplicity is achieved through hard work. The student learns basic cartoon construction, action, linking and letter techniques.

201-115 Advanced Cartooning 2 credits
Having learned the basics of cartooning and commercial art, students now learn the application of this kind of work. They also learn about syndication and how to market their work on a freelance basis. Prerequisite: 201-113 Cartooning.

201-119 Life Drawing I 2 credits
Life Drawing I is intended to introduce the student artist to drawing the figure in a variety of situations. Different drawing media are utilized for reasons of expression, detail, articulation, dramatic effect, and reproducibility. Study of human anatomy is included.

201-120 Advertising Layout I 3 credits
This course offers practical training in visualizing and layout through a variety of assignments, in much the same way as an advertising agency. The student learns to work through from rough layout to camera-ready mechanical. Prerequisite: 201-107 Lettering and Typography.

201-121 Graphic Design I 3 credits
The objective of this course is to develop two-dimensional, advanced design concepts. Assignments are offered in layout, corporate symbols and visual design dynamics. The course covers graphic design elements, their use and functions. Prerequisite: 201-107 Lettering and Typography.

201-122 Graphic Design II 3 credits
This course covers three-dimensional, advanced design problems. Assignments are offered in applied visual graphics, from package design to environmental and community design.

201-125 Publication Design 2 credits
This course covers newspaper, magazine and book design. Its objective is to help students understand the basic concepts of publications from design to production.

201-126 Advanced Problems-Illustration 2 credits
This course covers illustration for full-color reproduction and the use of all media (e.g. acrylic, watercolor or mixed media). The emphasis is on problem-solving and content. Illustration assignments are of more complex composition.

201-127 Advanced Problems-Graphic Design 2 credits
In this course, students have the opportunity to see publication of their designs by designing for non-profit agencies in the Madison area. Students do their own research and problem-solving for a variety of projects.

201-136 Comprehensive Rendering 2 credits
Primarily using felt tip markers to create layouts in color, this course emphasizes product rendering-composing illustrational material and display type. The techniques taught are widely used by commercial artists.

201-139 Design and Color I 2 credits
Through the use of design and color, the student can learn elements of design and develop an appreciation for the principles of unity, harmony and color. Lecture and studio exercises are included.

201-140 Design and Color II 2 credits
This course is a continuation of 201-139 Design and Color I. It covers advanced design and color works to further develop the aesthetics of design. Studio work is in three-dimensional design. Prerequisite: 201-139 Design and Color I.

201-143 Advertising Layout II 3 credits
This course is a continuation of 201-120 Advertising Layout I.

201-149 Life Drawing II 2 credits
This course is designed to familiarize the student with the infinite variations of the human pose—a student should be able to do a competent rendering of a human form without a model. The form is considered in hues, tones, combination and contour drawing.

201-159 Airbrush Techniques 3 credits
This course covers a variety of techniques and the use of airbrushing in technical drawing, architectural rendering and photo retouching.

201-160 Studio Techniques I 2 credits
This course is an introduction to the basic tools and materials of the commercial artist. Problems in pencil, pen and ink, scratchboard, watercolor, drawing instruments and studio procedures are covered.

201-162 Portfolio Preparation 2 credits
Students work to prepare a sample portfolio of their work for prospective employers. Students are supervised and assisted in the choice of samples, amount of samples, and layout of portfolio. Lectures cover job interview and job markets. Department approval of a finished portfolio is required for graduation.

201-171 Studio Techniques II 2 credits
The emphasis of this course is on the tonal media, prismacolor, wash and opaque watercolor, and the exploration of color through a variety of assignments. Prerequisite: 201-160 Studio Techniques I.

201-180 Commercial Art Internship 1 credit
Arrangements can be made for those students who have a working knowledge in pasteup techniques for off-campus experience in a wide range of art studios, public institutions or large corporation art departments, and commercial art agencies.

201-181 Computer Graphics I 3 credits
This course teaches students to prepare and manipulate copy, graphics and illustration for page layout into a variety of visual communications with the Macintosh Plus computer.

201-182 Computer Graphics II 3 credits
In this course, the student prepares original copy, graphics, photos and illustrations for a variety of page formats with the Macintosh II and Ilex computer. Emphasis is on color output. Atlas Freehand 2.0 is used in addition to the software packages introduced in Computer Graphics I. Writing and typing skills are advantageous. Prerequisite: 201-181 Computer Graphics I.

201-186 Screen Printing 3 credits
The assignments in this class are based on commercial applications of screen printing, and may be performed in conjunction with other courses in type and design, to produce a printed series of letterhead designs, annual report covers, package designs, or posters and signage that can be used to advertise MATC events. Students learn basic layout and design techniques as applied to the special art of silk screen printing.

203-105 Photographic Composition 2 credits
This survey course emphasizes composition as an important tool of the photographer that helps to add purpose and meaning to a visual statement. An introduction to the field of professional photography is included.

203-107 Studio Photography I 3 credits
This course covers basic theory and practical application in the use of the view camera, lenses and light meters, exposure techniques and related processing systems. The course introduces roll film and camera handling. Required: 4x5 view camera and sturdy tripod. Prerequisite: consent of instructor for non-majors.

203-108 Studio Photography II 3 credits
A continuation of 203-107 Studio Photography I, this course emphasizes the portrayal of architectural forms, light, balance and control of perspective. Prerequisite: 203-107 Studio Photography I.

203-109 Studio Photography III 3 credits
This course emphasizes photographic solutions for many occupational areas such as industrial and freelance. Students are encouraged to set up individual projects and their solutions.
203-110 Graphic Arts Photography I
This course continues to develop pre-press skills which were begun in Lithographic Technology I. Students receive instruction in the following areas: exposure determination and use of photographic materials, process camera operations/duotones, basic densitometry, intermediate multi-color image assembly, film contacting procedures, pin register step-and-repeat processes, pin register systems, and signature imposition. Prerequisite: 203-107 Graphic Arts Photography I.

203-111 Graphic Arts Photography II
This course continues to develop pre-press skills begun in Lithographic Techniques I, II, and Graphic Arts Photography I. The course covers: process camera operations/duotones, advanced multi-colored image assembly, four-color process image assembly, spreads and chokes, and advanced contacting procedures. Prerequisite: 203-110 Graphic Arts Photography I.

203-120 Lighting Techniques
This course introduces the laws of light, qualities of sun, tungsten and indirect light. The course covers terminology and lighting for form, texture and separation using basic three-dimensional forms. The use of standard studio lighting for balance and correct exposure is also covered. Prerequisite: consent of instructor for non-majors.

203-121 Commercial Photography I
This course covers product photography with an emphasis on creating solutions for advertising illustration using color photography. Prerequisite: 203-108 Studio Photography II, or consent of instructor.

203-123 Commercial Photography II
This course is a continuation of 203-121 Commercial Photography I, a prerequisite to enrollment in this course.

203-124 Portrait Photography
This course covers the theory and principles of portrait photography, studio and outdoor portraiture. Emphasis is placed on lighting, balance and character analysis. Prerequisite: 203-108 Studio Photography II and 203-141 Color Photography I, or consent of instructor.

203-141 Color Photography I
This course covers additive, subtractive color theory, film characteristics, color film processing and related chemistry. Prerequisite: 203-107 Studio Photography I.

203-142 Color Photography II
This course emphasizes advanced use of color photographic materials-color negatives and slides-as the primary media. Prerequisite: 203-141 Color Photography I.

203-170 Photography I
This course covers basic 35mm camera operation, film development and printing to provide students with a solid photographic foundation. Students provide their own 35mm cameras and equipment.

203-171 Photography II
This course is a continuation of 203-170. Prerequisite: 203-170 Photography I.

203-173 Photocopying
This course covers professional copying for mass public consumption with visual images. The course includes: plate changeover; color and single-color printing; film and paper handling; and handling and printing of multi-color images. Students receive instruction in the operation of a multi-color duplicator. Prerequisite: 203-107 Studio Photography I or 203-170 Photography I and consent of instructor.

203-175 Photographic Communication
This course is exploratory in nature, with emphasis on projects which communicate through the photographic medium. In consultation with the instructor, students may produce projects such as photo essays, documentary photographs, posters, audiovisual programs, or photographs in book form. Prerequisites: 203-108 Studio Photography II or 203-171 Photography II and consent of instructor.

203-185 Portfolio Preparation
Students prepare a portfolio showing examples of various types of photographic and printing skills that they have acquired during the two years of the Visual Communications program. This is then used in interviews with prospective employers. These finished pieces may evolve in the form of book layouts, folding mail pieces, postcards, illustrations, slides, film and any other form of visual communication materials. Department approval of the finished portfolio is required. Prerequisite: 203-108 Studio Photography II, 203-121 Commercial Photography I, and 203-142 Color Photography II.

203-186 Cinematography
This course provides an introduction to film as a medium of expression. Emphasis is on the conception, shooting and composition of a basic picture story. Students become familiarized with the use of all fundamental motion picture equipment. The course also covers the control and manipulation of photographic images through film editing. Prerequisite: consent of instructor for non-majors.

203-199 Photography Internship
Arrangements can be made for those students who have working knowledge of camera operation and color for off-campus experience in a variety of photographic studios. Prerequisite: 3.00 GPA and completion of two semesters in the Photography program.

203-301 Graphic Arts Photography
This course focuses on pre-press concepts; Students receive basic instruction in the following areas: exposure determination and use of photographic materials, process camera procedures, film contacting procedures, one- and two-color image assembly techniques, step-and-repeat processes, pin register systems, proofing, and platemaking. Prerequisite: concurrent enrollment in 204-193 Lithographic Preparation I.

204-101 Copy Preparation Techniques I
This course covers introductory typesetting, pasteup and layout procedures. Topics include: anatomy of type, markup and measurement, introductory typesetting commands, editing, file management and pasteup procedures; sizing cameras/made diffusion transfer prints; and technical pen usage.

204-102 Lithographic Techniques I
This course includes pre-press and press instruction. Students gain experience in use of a lithographic press; exposure determination and use of photographic materials; process camera operations; one- and two-color image assembly techniques; step- and-repeat process; pin register systems; proofing; platemaking; basic small press safety, set-up and clean-up; and single-color printing.

204-103 Typography
This is a basic course in preparatory graphic procedures exposing students to copy preparation, typesetting procedures and pasteup (mechanical) preparation. Text includes: anatomy of type, markup and measurement, introductory typesetting commands, pasteup and layout procedures; camera operation; one- and two-color image assembly techniques; step- and-repeat process; pin register systems; proofing; platemaking; basic small press safety, set-up and clean-up; and single-color printing.

204-105 Lithographic Techniques II
This course continues in developing skills which were begun in Lithographic Techniques I. It includes: pre-press, press and bindery work; exposure determination and use of photographic materials; process camera operations; one- and two-color image assembly techniques; film contacting room procedures; step-and-repeat processes; signature imposition; pin register systems; overlay color proofing systems; plate making; and basic small press operation, including set-up and clean-up procedures; single- and multi-color printing; and basic bindery operations. Prerequisite: 204-102 Lithographic Techniques I.

204-111 Press and Finishing Techniques I
This course continues in developing skills which were begun in Lithographic Techniques I and II. It covers the following areas: intermediate single- and multi-color press work; basic operator-performed adjust
ments; intermediate bindery/finishing operations; and beginning quality control applications in the press room. Prerequisite: successful completion of 204-102 and 204-105 Lithographic Techniques I and II.

204-112 Press and Finishing Techniques II 3 credits
This course continues in developing skills which were begun in Press Techniques I. It covers the following areas: advanced single- and multi-color press work; including four-color process; advanced quality control; including press room densitometry; advanced press adjustments and operator-performed equipment maintenance; and advanced bindery and finishing techniques. Prerequisite: successful completion of 204-111 Press and Finishing Techniques I.

204-123 Copy Preparation Techniques II 3 credits
This course covers basic typesetting, pasteup and layout procedures. Some of the topics included are: basic typesetting commands; basic editing, file management and pasteup procedures; and proofreader’s marks. Prerequisite: 204-101 Copy Preparation Techniques I.

204-124 Copy Preparation Techniques III 3 credits
This course covers intermediate typesetting, pasteup and layout procedures. Topics include: intermediate typesetting commands; intermediate editing, file management and pasteup procedures; and copyfitting. Prerequisite: 204-123 Copy Preparation Techniques II.

204-130 Quality Control for the Graphic Arts 4 credits
This course is designed to familiarize students with standards used in quality control processes throughout all production phases in the industry. Topics presented include: layout and focusing templates; layering effect; safelight check; processing standards; measuring systems; color bars; and general quality control standards. Prerequisite: successful completion of 204-105 Lithographic Techniques II.

204-131 Copy Preparation Techniques IV 3 credits
This course covers advanced typesetting, pasteup and layout procedures. Topics include: advanced typesetting commands; advanced editing, file management and pasteup procedures; and basic design principles. Prerequisite: successful completion of 204-124 Copy Preparation Techniques III.

204-152 Estimating for Print 4 credits
Instruction in this course emphasizes recognizing the operations necessary to produce a printed piece. Trade customs and production standards are examined to learn how they affect cost. Cost analysis is discussed; various pricing systems, paper catalogs, selection and pricing are also covered.

204-190 Production Processes 3 credits
The industry-simulation format of this course provides the student with entry-level job experience in copy preparation, pre-press, press and finishing, Production planning and control processes, as well as estimating costs, are incorporated. Prerequisite: successful completion of 204-111 Press and Finishing Techniques I, 203-301 Graphic Arts Photography, and 204-124 Copy Preparation Techniques III; and concurrent enrollment in 204-152 Estimating for Print.

204-192 Introduction to Publishing and Printing 1 credit
This course consists of a series of lectures and discussions designed to orient students to the Printing and Publishing program. Topics include: general MATC procedures, state and District VTAE systems, graphic arts industry information and trends, student goals, and program philosophy.

204-194 Industrial Orientation 3 credits
This course is designed to guide students through the “etiquette” required for success in the job market and to prepare students to work in an industrial setting. The courses discusses common employer expectations and helps students organize their data in ways that meet those expectations in applications, resume and interviews. Students develop effective cover and follow-up letters, as well as consider possible solutions to problems which may arise on the job.

204-308 Copy Preparation II 3 credits
This course offers intermediate instructions in typesetting, pasteup and layout, and an introduction to paper. Topics include: intermediate typography and pasteup; intermediate editing and file management procedures; and paper manufacture and selection. Prerequisite: successful completion of 204-307 Copy Preparation I.

204-320 Employment Orientation 1 credit
This course is designed to guide students through the “etiquette” required for success in the job market and to prepare students to work in an industrial setting. The courses discusses common employer expectations and helps students organize their data in ways that meet those expectations in applications, resume and interviews. Students develop effective cover and follow-up letters, as well as consider possible solutions to problems which may arise on the job.

204-329 Lithographic Preparation II 3 credits
This course continues to develop skills begun in Lithographic Preparation I. It includes pre-press work in: use and exposure determination of photographic materials; advanced process camera operation; halftone procedures; signature imposition; film contacting procedures; spreads and edges; single- and multi-color stripping, including four-color process; platemaking, and step-and-repeat systems. Prerequisite: successful completion of 204-393 Lithographic Preparation I.

204-332 Instrumentation for Graphic Arts 2 credits
This course familiarizes students with standards used in quality control processes throughout all production phases in the industry. Topics presented include: layout templates, focusing templates, layering effects, safelight check, processing standards, measuring systems and color bars.

204-371 Introduction to Lithographic Press 3 credits
This course includes work in the press and bindery. Students receive basic instruction in: press orientation; pressroom safety; basic small press operations including set-up and clean-up procedures and single-color printing; and basic bindery and finishing operations.

204-372 Lithographic Press Operations 4 credits
This course continues to develop skills begun in Introduction to Lithographic Press. It covers: single- and multi-color press work, including four-color process; ink mixing and color matching; operator-performed adjustments; bindery operations; and equipment maintenance. Prerequisite: successful completion of 204-371 Introduction to Lithographic Press.

204-393 Lithographic Preparation I 2 credits
This course focuses on pre-press concepts. Students receive basic instruction in: exposure determination and use of photographic materials; process camera procedures; film contacting procedures; one- and two-color image assembly techniques; step-and-repeat processes; pin register systems; proofing and platemaking. Prerequisite: concurrent enrollment in 204-301 Graphic Arts Photography.

206-104 Visual Communications Internship 1 credit
Off-campus experiences can be arranged for those second-year students who have a working knowledge of media production.

206-105 Communication Problems I 3 credits
This course covers projects dealing with typographic and pictorial elements. Problems include single-page layouts, brochure design and poster design.

206-106 Communication Problems II 3 credits
The design of graphics for projected media is covered, including charts, graphs, flowcharts and maps. Along with the traditional studio techniques, a computer graphics system is learned to create communication graphics.

206-110 Display, Design and Production 3 credits
The preparation of plan drawings and three-dimensional models for display systems and exhibits are covered in this course.
206-117 Audiovisual Techniques I 3 credits
This course covers the preparation of software materials for overhead projection and 35mm projection, and the operation and light maintenance of the equipment.

206-118 Audiovisual Techniques II 3 credits
This course covers the preparation of television graphics, acetate cell graphics, and a multi-image presentation synchronized with an audio recording.

206-120 Production, Planning and Control 3 credits
In this course, the student develops a basic understanding of multi-image production teamwork, production controls, cost estimating and budgeting.

206-125 Instructional Media Systems 3 credits
This course covers the educational applications of audiovisual production. Students are trained in the planning and preparation of instructional materials for offset, photocopies, print displays and projected media.

206-130 Television Production 4 credits
This course surveys the principles of telecasting operations including camera techniques, lighting, sound, film, settings, scenery, floor directing, script art and on-camera performance. Lectures, reading, special assignments and projects provide an understanding of the television industry, its history, development and principles of operation.

206-131 Sound Production Techniques 3 credits
This course covers the techniques of soundtrack mixing for audiovisual sound-synchronized productions, including narration, location recording and music mix.

206-140 Portfolio Preparation 2 credits
The student's portfolio of samples is the culmination of two years of study in visual communications. During job interviews, it is the key for showing prospective employers examples of the student's abilities. This class is an open laboratory giving each student time and opportunity to work on individual assignments designed to identify personal abilities and to prepare the completed portfolio under professional guidance.

206-180 Advanced Media Problems 2 credits
This course is for those students who have demonstrated proficiency in visual communications and who wish to pursue a more intensive study in areas of interest, including drawing and design, photography, animation, and computer graphics.

301-171 Textiles 3 credits
This course is a study of natural and man-made fibers—their advantages, limitations, uses and care. Yarn, fabric construction and finishes are included. Emphasis is placed on textile laws, legislation and standards, and the understanding of commonly-used terms.

301-175 Line, Color and Design In Fabric and Apparel 3 credits
This basic course assists the student to learn art principles and applies them to fabric and dress design. A study of fashion history and color analysis is included. Students are introduced to the basics of drawing the fashion figure and an apparel design portfolio is developed.

301-178 Decorative Textiles 3 credits
An investigation of current techniques of fabric embellishment and applied design is carried out. Such techniques as smocking, applique, charted needlework, fabric painting, Battenburg lace, and hand and machine stitchery samples are constructed. Techniques are developed into complete clothing or accessory projects.

301-180 Construction Techniques and Fitting 4 credits
This course provides a study of the principles and application involved in selecting fabrics and in fitting and constructing garments. The apparel construction techniques, fabrics and products used in design and apparel production are studied. Emphasis on efficient use of time in both fitting and garment construction is stressed. Trade sewing methods to achieve professional results are investigated and used to construct class projects.

301-181 Advanced Construction Techniques 4 credits
Analysis and evaluation of methods used in garment construction from trade to couture, are emphasized. Research and development of techniques with unusual and difficult-to-handle fabrics and new products are included through the required construction of garments. Prerequisite: 301-180 Construction Techniques and Fitting.

301-185 Equipment Demo and Sales 3 credits
This course involves a comprehensive study of factors affecting the selection, use and care of equipment used in sewing, apparel design and production. Students present and evaluate commercial demonstrations and sales presentations. Must take 104-104 Sales concurrently or previously. Prerequisite: 301-180 Construction Techniques and Fitting.

301-190 Apparel Design 4 credits
This course studies and applies the techniques of pattern designing through flat pattern, drafting and draping. Original garments are designed and constructed. Prerequisite: 301-180 Construction Techniques and Fitting.

301-197 Advanced Apparel Design 3-4 credits
A custom dress form is molded and used to study the basics of draping as a method of creating a design. A personal basic pattern is developed by draping the custom dress form. Pattern drafting techniques are also covered.

303-100 Food Science 3 credits
This course includes the physical properties of foods, standards of sanitation in the food service industry, and the terminology and principles involved in the preparation of eggs, milk, cheese, meat, poultry, fish, fruits, vegetables, soups, sauces, cereal products and bakery products.

303-105 Introduction to Dietetics and the Health Care Field 3 credits
Students study the profession of dietetics and the role of the dietetic technician. The course introduces the student to health care facilities and members of the health care team. The American Dietetic Association policies and procedures are covered.

303-110 Food Science-D.T. 4 credits
This course studies the basic methods of food preparation, standards, principles and techniques. Students participate in learning sound food preparation methods and skills, preserving the nutritional values of food through understanding of physical and chemical properties of food, storage of foods, and quality standards for the finished product. Additional areas stud-
303-111 Basic Nutrition I 3 credits
This course covers nutrients, their sources, functions, digestion and how the body utilizes them. Students learn to nutritional needs and to assess nutritional status.

303-112 Basic Nutrition II 3 credits
This course involves the study of nutrition and its relationship to the psychological, physiological and socio-economic states of individuals (i.e. pregnancy, infancy, geriatrics). Students learn to assess the nutritional needs and make dietary recommendations to individuals in each life span stage. Prerequisites: 303-105 Introduction to Dietetics and the Health Care Field and 303-111 Basic Nutrition I.

303-113 Nutrition Education I 3 credits
This course focuses on in-service education programs, the development of nutrition education training materials and community nutrition. Emphasis is placed on individualizing education and the effectiveness of individual and group instruction. Students are exposed to agencies and programs providing nutrition and health education in the community. The major goal is for students to recognize the importance of nutrition education.

304-101 Interior Design I 3 credits
In this course, the basic elements and materials of interior design are studied. House styles, space planning, furniture arranging, floor and wall materials and accessories are covered. The emphasis of study is on residential interiors. Prerequisites: 304-102 Fundamentals of Design, 304-115 Basic Drafting, 304-121 Applied Mathematics-I-D.

304-102 Fundamentals of Design 3 credits
The contextual forces, principles and elements of design are presented as a conceptual basis from which to solve and evaluate design problems.
This course presents art, architecture and furniture from the Egyptian
Treatments-I.D. This course stresses custom work in the construction of window treatments through the Baroque periods.

304·141 History of Architecture and Interiors I 2 credits This course presents art, architecture and furniture from the Egyptian through the Baroque periods.

304-103 Interior Design II 3 credits The emphasis of this course is on the design and materials of kitchens and baths. Wood identification, caseworks and upholstered furniture construction are also studied. Prerequisite: 304-101 Interior Design I, 304-112 Rendering, 301-173 Textiles-I.D., and 304-111 Window Treatments-I.D.

304-111 Window Treatments-I.D. 3 credits This course provides a background for the design, evaluation, selection, construction and installation of various window treatments and other home furnishing products, such as bedspreads, pillows and shower curtains. Prerequisite: 304-121 Applied Mathematics-I.D.

304·121 Applied Mathematics-I.D. 2 credits

304-112 Rendering 3 credits In this course, the student learns to shade and shadow geometric forms with a variety of media, collects and develops color renderings representing the various forms, materials and textures in an interior, renders a floor plan, elevations and perspective, and participates in timed rendering exercises to develop speed. Prerequisite: 304-115 Basic Drafting and concurrent enrollment in 304-116 Perspective Lab.

304-116 Perspective Lab 1 credit Skill in the sketching and drafting of interiors and furnishings in one point, two point and isometric perspective is developed in this course. Prerequisite: concurrent enrollment in 304-115 Basic Drafting.

304-118 History of Architecture and Interiors II 3 credits This course presents art, architecture and furniture from the Rococo period through the twentieth century. Prerequisite: 304-141 History of Architecture and Interiors I.

304-119 Commercial Interiors 3 credits This course focuses on the space planning, lighting, furnishings, materials and finishes, and codes of commercial interiors. Special emphasis is placed on conventional office planning, including private offices, reception areas and conference rooms. Prerequisites: 304-101 Interior Design I, 304-112 Rendering, and 301-173 Textiles-I.D.

304-120 Business Practices for Interior Design 3 credits This course covers business terminology, legal forms of business, and general business practices and procedures for interior design. Prerequisites: 304-103 Interior Design II and 304-151 Introduction to Interior Design.

304-121 Applied Mathematics-I.D. 2 credits This course covers the calculation of interior design materials for floor covering, paint and wall coverings, slipcovers, window treatments and upholstery.

304-125 Interior Design Internship 3 credits Students work 144 hours in an interior design-related business to gain practical knowledge of the interior design skills learned in the classroom. They assemble once a week to discuss their personal experiences on the job. In addition, students prepare for the job search. Prerequisites: 304-103 Interior Design II and 304-118 History of Architecture and Interiors II.

304-131 Applied Interior Design 3 credits In this course, students demonstrate their basic skills competency through the resolution of a variety of interior design problems and the preparation of a portfolio. Prerequisites: 304-103 Interior Design II and 304-118 History of Architecture and Interiors II.

304-140 Sewing for the Home 2 credits This course stresses custom work in the construction of window treatments and home furnishings products such as bedspreads, table linens, pillows and shower curtains. Students construct window treatments and various home furnishings products. Prerequisite: 304-111 Window Treatments-I.D.

304-141 History of Architecture and Interiors II 2 credits This course presents art, architecture and furniture from the Egyptian through the Baroque periods.

304-149 Reupholstery-I.D. 3 credits This course provides a review of furniture construction and fabrics, guidelines for determining whether to upholster or buy new, and the procedures for measuring and estimating the amount of fabric and construction materials needed. Each student uses upholstering equipment and tools and applies upholstering processes by constructing and upholstering a footstool and rebuilding a chair.

304-151 Introduction to Interior Design 1 credit The focus of this course is on the interior design profession, including the definition and history of interior design and the personal qualities, attitudes, professional organizations and magazines of the interior designer. The breadth of career opportunities and tasks performed by the interior designer is also explored.

304-155 Open Office Systems 2 credits This course focuses on the planning steps and procedures of open office systems furniture, from the programming of the required space to the workstation design and systems furniture specification, including acoustical, lighting, electrical and communication cabling concerns. A typical open office space is used as a course project to carry through all phases of the planning and design. Prerequisites: 304-115 Basic Drafting and 304-119 Commercial Interiors.

304-157 Lighting 2 credits This course focuses on lighting terminology, lamps, luminaire options, methods of calculation, the lighting plan and schedule, and residential applications. In addition, students demonstrate their mastery of the lighting lab components, including the installation of various lamps and track fixtures, and the control of the dimmer board. Students plan and execute the lighting of the residential design studio or the lighting lab. Prerequisites: 304-101 Interior Design I or consent of the instructor.

307-100 Introduction to Early Childhood Care and Education 1 credit Students gain an overview of the field of early childhood care and education. They become familiar with programs and agencies that provide services to children and families and study the history and philosophy of early childhood education.

307-101 Child Growth and Development I 3 credits Physical, social, cognitive and emotional development during infancy and toddlerhood are studied, as well as prenatal development. Representative theories of child development are discussed (psychoanalytic, cognitive, behavioral) and the relevance of theory to skillful practice is stressed.

307-102 Child Growth and Development II 3 credits This course is a continuation of 307-101 Child Growth and Development I. It focuses on development in all the domains from age 2 to 8.

307-103 Understanding and Guiding Children's Behavior I 3 credits Students are exposed to a child development approach to child guidance and discipline. They study guidance methods and rationales. Observation assignments supplement academic studies and increase the student's awareness of normative patterns of child behavior.

307-104 Understanding and Guiding Children's Behavior II 3 credits Students study contemporary approaches to guiding children's behavior and are exposed to a variety of teaching strategies. Techniques of assessing individual needs and strengths are explored with the focus on providing the optimal learning environment for the young child.

307-105 Basic Care: Health, Safety and Nutrition 3 credits Students learn to provide for the safety, health and well-being of young children. This practical course focuses on nutrition, accident prevention and identification of illness. Techniques of good care-giving are emphasized throughout.
307-106 Child Care and Development Practicum I 2 credits
Students observe a variety of early childhood programs to become acquainted with different kinds of child care settings and philosophies. They interact with children and staff to develop skill and assess their career choice. Periodic observations and conferences with MATC supervisors are scheduled.

307-107 Practicum Seminar I 1 credit
This weekly discussion focuses on what students are observing and learning in the field.

307-108 Child Care and Development Practicum II 2-3 credits
In this on-the-job training, the student applies the knowledge and skills acquired in Practicum I and related coursework under the supervision of qualified instructors and caregivers. Conferences with supervisors are scheduled to help students analyze problems as well as formulate and achieve training goals.

307-109 Practicum Seminar II 1 credit
This weekly discussion focuses on field experience and group dynamics.

307-110 Child Care and Development Practicum III 12 credits
Twelve hours per week. See description for 307-108.

307-111 Supervised Fieldwork/Seminar III 1 credit

307-112 Child Care and Development Practicum IV 3 credits
This field placement is designed to coordinate with the student's choice of specializations. Observations and conferences are built in with the continued aim of helping students formulate and achieve training goals.

307-113 Practicum Seminar IV 2 credits
Analysis and interpretation of field experience continue to be stressed with an additional focus on the teacher as supervisor of other adults.

307-114 Activity Planning I 3 credits
Students are introduced to the process of planning, implementing and evaluating activities appropriate for children in child care settings. An overview of preschool curriculum is presented. Differences between structured and spontaneous activities are discussed with an emphasis placed on creativity and meeting the developmental needs of the child.

307-115 Activity Planning II 1 credit
This laboratory course is a continuation of 307-114 Activity Planning I. Students develop further skills in planning and implementing activities in child care settings.

307-116 Activity Planning III 1 credit
See description for 307-115.

307-117 Working with Staff and Parents 2 credits
Students study the basic principles of staff/staff and staff/parent relationships. Particular attention is devoted to establishing and maintaining effective communication and support.

307-118 Culture, Class and Gender in the Child Care Setting 2 credits
The first half of this course explores the dynamics of prejudice. Majority and minority cultures in the U.S. are discussed with the aim of helping students develop awareness and understanding of cultures different from their own and of social class characteristics. Guest speakers play an important role. The second half concentrates on the role of gender in the preschool with the intention of helping students plan non-sexist environments.

307-119 Working with Children with Special Needs 2 credits
Students study the process and implications of mainstreaming children with special needs into child care programs. A variety of handicapping conditions are studied, and coping strategies are developed. Students become acquainted with services and resources available to parents and teachers of children with special needs.

307-120 Play and Play Environments 2 credits
The development and significance of children's play are discussed as well as principles involved in setting up a developmentally-oriented play and learning environment.

307-121 Infant and Toddler Care and Development 2 credits
This course focuses on principles of infant and toddler care, development and education, particularly as they relate to center-based and family day care settings. Supportive methods of working with families of infants and toddlers are emphasized.

307-122 Administration: Group Centers and Family Day Care Homes 2 credits
This course focuses on administration of family day care homes and group centers. Program start-up, budgeting, staff management, space/design and overall responsibilities are covered.

307-123 Working with Children who Challenge: Social and Emotional Issues 3 credits
The course analyzes three factors which cause challenging behaviors in children: characteristics of the child; the family; and the child care environment, including teacher skills and attitudes. Ideas for specialized activities for parents and children are presented. Assessment and management skills are emphasized. The course builds on previous coursework.

307-124 Consumer Resources 3 credits
This course is designed to help students develop effective skills and methods that are useful in acquiring competence as consumers of goods and services in a modern economic society. Information on consumer rights and responsibilities is given in areas such as law, money management, credit, housing, furnishings, equipment, clothing, food, transportation, health, recreation, and banking services.

401-301 Heating and Air Conditioning 3 credits
Information on basic environmental equipment maintenance is covered. The applications of HVAC components, refrigeration controls, condensers, hydronics, boilers, heat exchangers, dampers, compressors, plumbing pumps, measurement, blowers, preventative maintenance/repair are presented. The use of measurement equipment, pressure and air volume flow is studied.

403-302 Architectural Design 8 credits
This course emphasizes continued development of the basic skills acquired in 403-303 Construction Drawing I, plus development of skills in architectural planning as related to site development, building design and construction techniques. Project work is directed toward most phases of architecture from preliminary design to construction drawings. Major emphasis is placed on the drawing process as it relates to the commercial building process. Prerequisites: 403-303 Construction Drawing I and 804-379 Mathematics II.

403-303 Construction Drawing I 5 credits
This course provides thorough and comprehensive coverage of the basic skill and concepts of drafting as a tool of architecture. Classwork is directed toward a comprehension of graphics representation and the development of a complete set of architectural working drawings. Lettering, line work, accuracy, symbols, and dimensioning are emphasized in developing drafting ability. Rendering, planning, layout, and design are also approached. Structural integrity is discussed in relation to each student's project. Corequisite: 804-379 Mathematics II.

403-308 Codes and Regulations 2 credits
Units of instruction include zoning requirements, residential and commercial building codes, sanitary regulations, permit applications and building permits, and inspection procedures. Contract documents and office practice are also discussed. Prerequisite: 804-379 Mathematics II.
403-316 Building Construction I 3 credits
Permit application, codes, excavation, foundations, examples of framing, different structure types, roofs and general rough-in of residential building are covered. The student is given the opportunity to work with building materials when possible.

403-317 Building Construction II 2 credits
The areas of electrical installation, waste systems, water systems, insulation, heat loss, heating system design, cooling systems, ventilation, septic systems, municipal sewage and new methods of obtaining power are included. Drawing plans and installation methods for the above are covered. Prerequisite: 403-316 Building Construction I.

403-326 Introduction to Industrial Computers 1 credit
Students learn the processes of computers in industrial applications and activities such as keyboarding, equipment usage, storage, and information retrieval systems. Other processes applied to industrial equipment are studied.

403-330 Mechanical Systems I 2 credits
Basic mechanical principles of residential heating, ventilation and air conditioning, electrical and plumbing, with emphasis on thermal efficiency and energy conservation are studied.

403-331 Mechanical Systems II 2 credits
Heating systems design, cooling systems, ventilation, electrical service and wiring, electrical generation, lighting design, interior water system, water system, gas piping, exterior plumbing systems, waste treatment, wells, water supply and public garbage disposal are studied. Prerequisite: 403-330 Mechanical Systems I.

403-340 Collision Repair/Refinishing I 11 credits
Oxy-acetylene welding, brazing and MIG welding as related to the auto body industry are studied. Students learn the proper use of the hammer and dolly, hydraulic pony power jacks and other metal straightening tools. The processes of metal finishing, plastic filling and body solder application is taught on fenders. The refinishing phase includes instruction in the proper use of the spray gun, refinishing panels and fenders, spot repairing of panels and fenders, and blending and timing of paint. Shop and paint safety practices are emphasized.

403-331 Collision Repair/Refinishing II 11 credits
Further development of the welding, straightening and painting skills is achieved by performing these activities on automobiles. Such operations as welding on replacement panels, minor frame or body alignment, straightening of damaged sheet metal, complete refinishing, spot repair and panel repair are completed on vehicles. Supplementary operations such as trim removal, minor mechanical, glass replacement and electrical wiring are performed as the need arises. Further skill is developed in the use of hand and power tools as well as major power equipment. Paint mixing skills are also taught so that students can mix paint to acceptable color matches. Prerequisite: 403-330 Collision Repair/Refinishing I.

403-332 Basic Unibody Collision Repair/Advanced Refinishing 11 credits
All the skills learned in 403-331 Collision Repair/Refinishing are applied in the repair of collision-damaged vehicles. The studies include the proper welding procedures of HSS (High Strength Steel) and HSLA (High Strength Low Alloy) steel, and various panel replacement and unibody structural alignment. Complete refinishing and blending of paints are performed on the repaired vehicles. Safe working procedures are emphasized. Prerequisites: 403-330/404-331 Collision Repair/Refinishing I, II.

403-333 Advanced Unibody Collision Repair 11 credits
This course is a continuation of Collision Repair/Advanced Refinishing. Studies include dedicated bench and laser measuring systems, wheel alignment and steering geometry, as well as the study of glass installation and adjustments, interior trim, roof covers and accessory equipment. The safe working procedures of an auto body shop are stressed. Prerequisite: 403-332 Basic Unibody Collision Repair/Advanced Refinishing.

403-334 Collision Damage and Report Writing 2 credits
This is a lecture, demonstration and discussion course which covers vehicle damage estimating. The student learns the proper sequence for writing an estimate, the use of estimating guides, and the various uses of an estimate of repair. Each student has an opportunity to do some actual estimating of damaged vehicles.

403-335 Engine Performance 6 credits
The techniques of diagnosis and analysis of the electrical and fuel systems are studied. A computerized engine analyzer is used to diagnose driveability problems. Repairing and testing procedures are emphasized. Test equipment operation is practiced. The principles of carburetors, electronic fuel injection, multi-port injection and system controls are studied.

403-336 Engine Rebuilding 6 credits
The theory of automotive gasoline and diesel engine operation, construction and design, along with methods of engine problem diagnosis, disassembly, repair and assembly, are studied. 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. Prerequisite: 403-340 Minor Repair or consent of instructor.

403-339 Brakes and Steering 5 credits
The fundamentals of automotive brake systems including drum brakes, disc brakes, hydraulic systems, power brakes and anti-lock systems are studied. Included are the fundamentals of steering systems and service, adjustment and overhaul of manual and power steering gears. Laboratory work stresses brake overhaul and component reconditioning and troubleshooting of brakes.

403-340 Minor Repair 6 credits
The theory, design and operation of the automobile engine, along with maintenance, light duty repair and safety inspection, are studied. Engine lubricating, cooling and exhaust systems are studied and serviced. Students learn basic mechanical theory used in diagnosis and repair of batteries, starting and charging systems. Theory and proper use of hand tools, electrical test equipment and fasteners are emphasized.

403-341 Suspension and Alignment 5 credits
Basic principles of passenger car construction, suspension, tires, wheels and wheel alignment angles are covered. Laboratory work stresses inspection, correction or replacement of all suspension parts and the roles they play in proper vehicle handling and operation. Wheel and tire repair, balancing, alignment procedures and the use of modern wheel alignment machines, headlight aiming and troubleshooting are stressed.

403-345 Automatic Transmissions 5 credits
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.

403-356 Standard Transmissions and Driveaxles 5 credits
Clutches, standard transmissions, manual transaxles, driveaxles and differentials are studied. Demonstrations and practice provide the opportunity to become proficient in diagnosis, service and complete rebuilding of these systems.
404-357 Auto Electrical Systems
This course involves a comprehensive study of the electronic systems of automobiles. Emphasis is placed on the operation of sensor-based computer systems to include both signal and analog circuits. Studies include electronic instrumentation, engine, transmission, brakes and chassis controls, and the use of manufacturer's diagnostic test equipment and procedures. Demonstrations and lab practice provide the students an opportunity to become proficient at troubleshooting, diagnosing and repairing these systems. Prerequisite: 404-335 Engine Performance or instructor approval.

404-360 Auto Body Accessories
This course involves the study of the basic principles of brake system operations, wheel alignment, suspension and steering, air conditioning and cooling components and fuel systems. The course also covers the automotive electrical system, including basic electricity, soldering, troubleshooting with a meter, exterior lighting, instruments, windshield wipers, and motors and their circuits.

404-361 Collision Repair/Refinishing Theory I
Related information is presented on all phases of auto body welding, metal straightening with hand tools and hydraulic equipment. Collision damage analysis of sheet metal and unibodies is studied. Different types of sheet metal, such as HSS and HSLA, as well as the properties of sheet metal are discussed. Where and how to use lead and plastic filler is presented. Paint equipment such as the operation and maintenance of the spray gun is studied. Extensive discussion takes place on refinishing products, surface preparation, sanding and polishing, thinners and reducers, and top coat application. Instruction in shop, tool and paint safety is presented.

404-363 Collision Repair/Refinishing Theory II
To further promote knowledge of repair skills related to auto body, the following discussion areas are included in this course: the evaluation of automobile bodies and damage repair techniques, unibody construction and repair techniques, structural terminology, suspension designs, collision damage diagnosis, vehicle preparation, metal correction and parts replacement. Additional instruction may include glass installation, electrical accessories, door and window servicing, and trim replacement. Prerequisite: 404-361 Collision Repair/Refinishing Theory I.

404-365 Unibody Collision Repair Theory
This course introduces the dedicated bench system for repair of unibody vehicles and proper anchoring and pulling procedures. Instruction on removing and replacing engines and running gear components is included. Stress is placed on the proper care and protection of on-board computers in autos. Stress metal alignment, frame and unibody straightening, along with procedures for restoring severely damaged vehicles, are studied. Prerequisite: 404-363 Collision Repair/Refinishing Theory II.

404-366 Auto Electronics
Basic automotive electronics, including electrical principles and concepts through automotive semiconductors and microprocessors, are studied.

404-373 Automotive Industry Orientation (Automotive Technician)
This course studies the role, function and operation of all departments in a small and large automotive business, emphasizing the service department. Special attention is given to the responsibility of the service person to the automotive establishment and the community. Students receive specific occupational information which enables them to effectively seek employment in the automotive service industry, and are assisted in preparing personal data sheets, job interviewing techniques, letters of application, references and resumes. In addition, information on wages, benefits, mechanic certification and job retention are covered.

404-373 Collision Repair Occupational Orientation (Auto Body)
This course provides a study of the operation of all departments of a collision repair center. Special attention is given to the business operations of paper flow, job costing, budget preparation, insurance and AG 132 Law. The students receive specific occupational information, which enables them to effectively seek employment in the collision repair industry. Personal data sheets, job interviewing techniques, letters of application, seeking references and writing resumes are covered. In addition, personal concerns such as finances, time management, first impressions and evaluating strengths and weaknesses are discussed.

410-330 Wood Technics Processes and Procedures
Students are introduced to the identification, safe use and care of hand tools and portable power tools. Skills are developed in using hand and power tools to square up stock, study cut grains, cope joints, sand surfaces and other tool usages. The identification, safety, use, care, function, operations and procedures of various woodworking machines are emphasized. Instruction includes information on wood properties, characteristics of wood and wood products, as well as on wood finishing products and procedures, including interior cabinet and furniture finishes, exterior wood finishes and interior wall finishes. Current fasteners, hardware and adhesives in the woodworking industry are discussed with emphasis on selection, cost, installation and special requirements.

410-331 Cabinet and Furniture Making
This course instructs students on basic design concepts, material selection, planning techniques and methods of estimating in the cabinet and furniture making field. Students study the procedures and operations involved in the specialized field of cabinet making, including styles of cabinets, methods of construction, material selection, finishing procedures and installation of cabinets. Emphasis is placed on the skills necessary to plan, schedule and construct furniture; methods of production and construction techniques as related to the proper use of materials are also covered. The selection and application of finishes used in commercial and small shop, cabinet and furniture production are discussed. Prerequisite: 410-330 Wood Technics Processes and Procedures or consent of instructor.

410-332 Construction and Remodeling
Students are introduced to interpreting plans, specifications and building codes in light residential construction. Site preparation; layout footings; foundations and formwork are included. The fundamentals of floor framing and foundation preparation are introduced, as well as conventional wall, ceiling and roof framing. Shingling, flashing, facias, soffits, venting and exterior siding materials, and window and door installation are discussed. Information on heat loss, energy auditing, insulation, vapor barriers, weather stripping and venting is provided. Additional topics include construction of soffits, drywall, hanging interior doors, fundamental stair construction, and installing interior trim, fixtures and prefabricated kitchen cabinets. Information on removal, repair, remodeling and restoration of residential construction; foundation repair; insulating; electrical systems to include both digital and analog circuits. Studies include electronic instrumentation, engine, transmission, brakes and chassis controls, and the use of manufacturer's diagnostic test equipment and procedures. Demonstrations and lab practice provide the students an opportunity to become proficient at troubleshooting, diagnosing and repairing these systems. Prerequisite: 404-335 Engine Performance or instructor approval.

410-336 Machine Maintenance
The fundamentals of woodshop maintenance are emphasized, including the identification of maintenance problems, the care of woodworking tools and machines and the principles by which they operate, and preventative maintenance. Lab work includes the maintenance of woodworking tools and machines.

410-340 Plastic Laminates
This course introduces the field of plastic laminates including grades and textures of laminates, types of adhesives and methods of application, and methods of applying pressure to secure laminates. Special skills specific to laminates including routing, edgebanding, machining and forming are stressed. New product lines are examined including the 32mm system of plastic fabrication.

410-345 Construction Materials and Estimating
Types of building materials, their usages, costs and applications for light residential construction are explored. Plans are interpreted for building materials, takeoffs and estimating for bills of materials. Prerequisite: 410-330 Wood Technics Processes and Procedures.
410-385 Drawing and Estimating 2 credits
Students are introduced to drawing and estimating as they relate to wood-
working occupations. Areas of drawing instruction include sketching tech-
niques, orthographic projection, isometric, oblique and perspective draw-
ings. Methods of estimating materials and construction costs, reading
prints and interpretation of drawings are included.

410-386 Cabinet Drawing 2 credits
This course introduces the areas of kitchen cabinet designing, planning,
drawing and estimating costs. Units include kitchen layout and design;
kitchen planning using frameless, framed and standard systems; estimating
kitchen costs; and computer-aided drafting (CAD) of kitchen cabinets.

412. Diesel and Heavy Equipment Mechanics

412-324 Accessories-Diesel 2 credits
The operating principles of common electrical accessories found on diesel
and heavy equipment are covered. Emphasis is placed on diagnosis, repair,
testing and maintenance of components such as truck cab jack systems,
fifth wheels, truck engine control devices, vehicle recorders, and trailer
landing gear mechanisms.

412-325 Air Conditioning 2 credits
This course consists of science, operational theory, diagnosis and service
procedures, arranged in an order which leads to proper skill and under-
standing for craftsmen and technicians. The major emphasis is in the area
of automotive air conditioning.

412-326 Refrigeration Systems-Diesel 2 credits
The operational theory of the cooling, heating and defrost cycles is studied.
Emphasis is placed on diagnosis, adjustment and replacement of system
components. Installation, charging, discharging and reclamation of refrig-
erants used in the truck/cab trailer transport industry is included to give the
technician the skills needed to properly maintain the unit. Prerequisite: 412-325 Air Conditioning.

412-337 Diesel Shop Operations 1 credit
The roles and function of the mechanics service manager, parts depart-
ment, sales department and the company organizational structure are stud-
yed. Included are new machine delivery procedures, service reports, repair
orders, warranty policies and a study of the latest procedures and tech-
niques in the industry. Identifying employment opportunities and prepara-
tion for seeking employment are also a part of the course.

412-338 Diesel Equipment Maintenance 1 credit
Preventive maintenance for trucks and construction equipment is covered.
A study of oils, fuels, lubricants, filtration, tires, rims, tracks, belts and
chains is included.

412-358 Diesel Chassis Units 5 credits
Theory and laboratory experience in this course is designed to give the stu-
dent the basic knowledge and skills needed to perform proper maintenance
and repair of the chassis units such as drum and disc brakes, hydraulic and
air brake systems, steering and suspension units.

412-359 Diesel Electrical Systems 5 credits
Students gain basic knowledge and needed experience in electrical theory
and practice. They perform tasks using shop equipment and special tools in
the following areas: battery, wiring and lighting systems, starting systems,
charging systems and ignition systems.

412-372 Diesel Transmission and Driveline 10 credits
Standard diagnosis, disassembly, inspection, reassembly and adjustment of
power transmission units such as universal joints, differentials, power
shafts and power shift transmission, torque converters, manual transmis-
sions and clutches are studied. Typical equipment used in this instructional
unit are highway trucks and construction equipment.

412-373 Diesel Engines 10 credits
Proper diagnosis, disassembly, inspection and repair of all diesel engine
components are studied. Two-cycle, four-cycle, in-line and vee engines
used in trucks and construction equipment are used in this course. Engine
maintenance requirements and operational standards are also covered.

412-375 Diesel Fuel Systems I 5 credits
Theory and laboratory experiences in this course are arranged to provide
skill and knowledge needed for proper diagnosis, disassembly, inspection,
and repair of all diesel fuel systems up to engines with 250 HP.

412-376 Diesel Fuel Systems II 5 credits
Diesel fuel systems on engines over 250 HP are covered, including trouble-
shooting, rebuilding, calibrating and tune-up. Advanced study of unit
injectors, nozzles, in-line fuel pumps, distributor fuel pumps, turbochargers
and how each of them affect engine performance is demonstrated with the
use of engine dynamometers and other types of analysis equipment.

414. Electronic Servicing

414-311 Electronic Shop Processes I 3 credits
Shop safety and operation, soldering, printed circuit boards and an intro-
duction to the use of the computer are covered.

414-312 DC Circuits 3 credits
Practical theories and concepts essential to the understanding of DC elec-
tricity and electronics are covered. Laboratory work introduces the use
of basic test equipment.

414-313 AC Circuits 3 credits
Students study alternating currents applied to resistors, capacitors, induc-
tors and transformers. Use of the oscilloscope in AC measurement and
troubleshooting is included. Prerequisite: 414-312 DC Circuits (day
program only).

414-314 Semiconductor Devices 3 credits
Basic semiconductor devices, including junction diodes, zener diodes,
bipolar transistors, field effect transistors and other active devices, are
studied. Prerequisites: 414-312 DC Circuits and 414-313 AC Circuits.

414-319 Electronic Circuits 3 credits
This course introduces basic electronic circuits, including amplifiers,
power supplies, oscillators and wave shaping circuits. Prerequisites:
414-312 DC Circuits and 414-313 AC Circuits and 414-314
Semiconductor Devices.

414-321 Industrial Electronics and Programmable Controllers 3 credits
Students learn programming languages, input-output capabilities network
control, formatting, applications and troubleshooting. Instruction on ladder
diagrams, control factors, interfacing controller from high voltage trans-
formers to 110 VAC, and other interfacing processes is provided.

414-323 Computer-Based Controls 3 credits
Students are educated on microprocessors, personal analog control systems.
They are trained to maintain and troubleshoot digital control systems on
personal computers, microprocessors and programmable electronic control-
ers with emphasis on linking HVAC systems.

414-325 Introduction to Digital Electronics 3 credits
The course offers a study of basic digital electronics using TTL and
CMOS digital integrated circuits. Troubleshooting of digital devices is
explored. Prerequisites: 414-311 Electronic Shop Processes I and 414-315
Electronic Circuits.

414-329 Office Equipment Maintenance 3 credits
Students study mechanisms as they relate to consumer and business elec-
tronic products such as copy machines, with an emphasis on services and
installation. Prerequisites: 414-311 Electronic Shop Processes I and 414-
315 Electronic Circuits.
414-330 Fundamentals of Electronic Communications  
Basic electronic communications circuiting is studied. Topics include circuits found in receivers and transmitters. Prerequisites: 414-311 Electronic Shop Processes I and 414-315 Electronic Circuits.  

414-331 Electronic Shop Processes II  
This course prepares the student to perform the shop skills required of an electronics technician. The student is exposed to researching purchasing, pricing, stocking, inventory procedures, and maintenance and assembly operations. Prerequisite: 414-311 Electronic Shop Processes I.  

414-332 Electronic Transmission and Reception  
This course studies video systems, basic principles of television transmission and reception, and basic troubleshooting and service procedures. Prerequisites: 414-311 Electronic Shop Processes I, 414-315 Electronic Circuits and 414-330 Fundamentals of Electronic Communications.  

419 Industrial Hydraulics  

419-300 Industrial Hydraulics/Pneumatics  
The fundamentals of fluid power and components, including principles, function, terminology and use, are covered. The basic systems of various machine tools are studied, along with speed and limit controls found on common industrial equipment. Hydraulic maintenance and troubleshooting are also included.  

419-301 Intermediate Fluid Power  
This is an advanced theory and application course on troubleshooting hydraulic and pneumatic systems with computers. Interface, safety and modification of servo-mechanisms is covered. Fixure installation connection, gauging, piping, actuators, valves, switches, pumps, schematics and meters are discussed.  

419-312 Mobile Hydraulics  
Students are acquainted with the theory and service of hydrostatic systems. The course is designed for application to the mobile equipment industry.  

420 Machine Tooling Techniques  

420-304 Advanced Inspection  
This course studies high amplification inspection equipment and procedures. Emphasis is placed on surface finish, flatness, optical, mechanical, electronic and pneumatic gauging systems. Actual machine shop inspection and practices are employed specific to precision inspection.  

420-330 Metal Processes I  
This basic machining course is designed to provide the student with instruction in metalworking processes. Instruction units include safety, layout and measuring, machining, oxy-acetylene welding, brazing and cutting, and welding and properties of metals.  

420-331 Metal Processes II  
This study of metals provides instruction in sheetmetal work, soldering and brazing, forging and heat treatment, grinding, tool sharpening, metal casting, MIG and TIG welding, metal fabrication and the repair of metal objects. Prerequisite: 420-330 Metal Processes I.  

420-351 Layout and Inspections  
This course introduces precision inspection and layout of machined parts. The emphasis is placed on methods, accuracy, calibration and measurement techniques used in the machine tool industry.  

420-353 Tool and Parts Inspection  
Inspection requirements and procedures as they relate to tooling and finished parts are covered. Gauging and conventional measuring equipment are utilized in determining conformance to parts prints and specifications.  

420-380 Machine Tool I  

<table>
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### 420-388 TO 442-323 COURSES

**Advanced Grinding:** This unit encompasses the development of skills in the grinding and measuring procedure for parallel surfaces, and the squaring and sharpening of milling cutters. Side dressing of wheel and step grinding, as well as fixture and special work holding problems, are covered.

<table>
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<td>420-388</td>
<td>Tool and Fixture Design</td>
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This course is an introduction to tool design and gauging practices. Emphasis is on jigs, fixture design, clamping, locating devices, tooling and production methods. Preset and qualified tooling for NC-CNC is presented as they relate to conventional practice.

**420-393 Job Orientation** 1 credit

Specific occupational information for seeking employment is covered. Personal data sheets, job interviews, resumes and recommendations are covered. Former graduates are invited to discuss needs of the students before employment. Representatives of labor, management and industry are invited to discuss various aspects of employment.

**420-397 Numerical Control** 2 credits

This course is designed to give students experience in manual programming of numerical control machines. It covers the history, justification, types of control systems and tape preparation. The student programs a part, punches a tape and makes a test on a computer numerical control milling- and turning machine. An introduction to computer programming is covered. Written reports are required. Prerequisites: 420-380 Machine Tool I.

**420-398 Special Problems-Machine Tool** 1 credit

This course introduces the use of jigs, fixtures, molds or special tools into practical problems, with the aid of the computer numerical control system. Advanced computer numerical control projects may be completed with instructor approval. A written report and individual evaluation are required for credit.

**420-399 Computer Numerical Control** 2 credits

This course is designed to give the student experience in using a basic CAD-CAM system. The student constructs parts from the simple to complex using the CAD-CAM system, then downloads the information to the CNC milling and EDM wire cut machines. Prerequisites: 420-397 Numerical Control.

### 421 Mechanical Drafting

**421-311 Computer-Aided Drafting (CAD)** 2 credits

Basic skills of sketching, drawing, lettering, layout and design are taught. Introduction of two-dimensional use of computers to retrieve mechanical drawings and to make changes is covered.

**421-393 Drawing Interpretation** 3 credits

The basic principles of engineering welding drawings are interpreted through explanation, sketching and orthographic projections. The student develops a visualization of parts and fabrication assemblies. AWS welding joints, symbols and their applications on fabricated models and company prints are also covered.

**421-394 Drawing Interpretation** 1 credit

The fundamental principles of interpreting and visualizing drawings are presented. The majority of classroom time is spent working with and interpreting drawings and prints. Basic sketching is also covered.

**421-395 Drawing Interpretation** 2 credits

The basic principles of engineering drawings are discussed. Through interpretation and sketching, the student develops a visualization of the part, section or assembly. Drawings pertinent to the trade are used along with examples and discussion of manufacturing procedures.

### 442 Welding

**442-312 Oxy-Fuel Processes: Welding, Brazing, Soldering and Cutting** 3 credits

Safety and the theory and techniques of welding, cutting and soldering on steels, cast iron, and non-ferrous metals using oxy-acetylene and alternative fuels are emphasized. Flame cutting to dimension using manual and semi-automatic equipment and maintenance repair techniques are also taught.

**442-313 Related Welding** 2 credits

This course introduces arc and oxy-acetylene welding. The fundamental principles of joining ferrous and non-ferrous metals are studied and demonstrated. Basic welding processes, equipment operations and safety procedures are practiced in the laboratory. Emphasis is given to welding procedures and practice in the major areas of work such as machine shop, automotive and diesel mechanics and sheet metal.

**442-314 Arc Welding (SMAW) Basic Theory-Flat** 3 credits

This course emphasizes safety, theory, electrical applications, and electrodes selection in the shielded metal arc welding (SMAW) processes. Techniques of flat position arc welding include beads and AWS groove welds.

**442-316 Arc Welding (SMAW)-Horizontal** 3 credits

Shielded metal arc welding (SMAW) techniques in the horizontal position are emphasized. Included are AWS fillet and groove welds using 1/16" E-6010, iron powder, and low-hydrogen electrodes in weld assemblies. Prerequisite: 442-314 Arc Welding Basic Theory and Flat, or concurrent enrollment.

**442-318 Gas Tungsten Arc Welding Processes** 3 credits

Emphasis is placed on gas tungsten arc welding (TIG) theory, set-up and safety. Development of skills and techniques in all positions on carbon steels, stainless steel and aluminum are applied to standard AWS joints. Prerequisite: completion of or concurrent enrollment in 442-302 Basic Arc or 442-314 Arc Welding (SMAW) Basic Theory-Flat.

**442-320 Welding Occupational Development** 1 credit

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.

**442-321 Arc Welding (SMAW) Vertical Positions** 3 credits

This course emphasizes shielded metal arc welding techniques in the vertical and down positions. Included are AWS fillet and groove welds using E-6010, and low-hydrogen electrodes in weld assemblies. Prerequisite: 442-316 Arc Welding (SMAW)-Horizontal.

**442-322 Advanced Welding Techniques** 3 credits

Depending upon student needs, this course may include shielded metal arc welding techniques in the overhead and pipe positions. Included are AWS fillet and groove welds using E-6010 and low-hydrogen electrodes in weld assemblies. Additional skill development or independent study of special welding processes, techniques and applications may be included. Prerequisite: 442-314 Arc Welding (SMAW) Basic Theory-Flat, or 442-302 Basic Arc and 442-306 Advanced Arc.

**442-323 Gas Metal Arc and Flux Core Arc Welding Processes** 3 credits

Emphasis is placed on gas metal arc, flux cored arc welding and plasma arc cutting theory, set-up, and safety. Development of skills and techniques in all positions on carbon steels, stainless steel and aluminum are applied to standard AWS joints. Prerequisite: 442-314 Arc Welding Basic Theory-Flat or 442-302 Basic Arc.
442-324 Layout and Fabrication Techniques 3 credits
This course emphasizes geometric and triangulation layout, hand and power tools, maintenance/repairs, and fabrication techniques and applications. Prerequisites: 421-393 Drawing Interpretation, 442-314 Arc Welding Basic Theory—Flat, 442-323 Gas Metal Arc and Flux Cored Arc Welding Processes, or concurrent enrollment.

443-303 Building Repair and Maintenance 3 credits
Students are instructed on safety, schematics, wall framing, electrical services, insulation, drywall applications, painting, floor applications, roofing and siding applications. Other activities involve the study of appropriate applications of material to facilities.

461-322 Small Engine and Chassis Mechanics 10 credits
The principles of small internal combustion engines, including two-cycle and four-cycle, are studied in detail. Design, construction, engine testing, diagnosing, disassembly, repairing and reassembly, and engine break-in are thoroughly covered. Engine tune-up, carbonization and electrical systems are also included. Snowmobiles, chainsaws, sharpening and balancing of rotating elements are covered. Students become familiar with the tools, machines and equipment that are used for engine repair work in the power equipment shop.

461-323 Power Equipment Repair 10 credits
The repair of equipment powered by small gas engines is emphasized in this course. Included are charging systems, electric starters, linkage, hydraulic drives, belt drives, chain drives, gear drives, clutches, brakes and all other elements of a power train, motorcycles, outboard motors, and accessories used on power equipment and engines.

461-328 Small Engine Laboratory 2 credits
Students work on individual projects approved by the instructor, such as building a two-stroke or four-stroke engine stand or developing advanced technical knowledge or skill in any of the motorcycle, marine, or small engine service areas. Prerequisite: 461-322 Small Engine Repair or 461-323 Power Equipment Repair.

461-330 Service Shop Management 2 credits
This course focuses on the basic principles of setting up and operating a small engine shop. Students study the financial, operational and marketing aspects of a small engine dealership or service shop, and they work in groups to set up their own small engine service shop businesses in a written report.

462-303 Industrial Maintenance 2 credits
This course involves the study of the basic principles of physics specific to electro-mechanical systems, which have frequent and common practical applications for students pursuing vocations in technical and industrial education. Emphasis is placed on measurement, lubrication, energy, power, machines, properties of matter, and fluid and chemical properties. Installation, timing and synchronization of machine drive components are studied. Disassembly and assembly of industrial components with hands-on application is conducted.

462-311 Industrial Maintenance Mechanics 3 credits
Emphasis is placed on installation of automated equipment, as well as on interfacing, troubleshooting and maintaining automated manufacturing systems. Students study packaging, process, transportation, storage, retail and communications systems used in industry.

462-314 Manufacturing Systems Application and Control 3 credits
Students study robotics, work cells and flexible automation systems. Troubleshooting and repair are emphasized.

462-316 Fluid Distribution Systems 2 credits
This is an advanced course on fluid systems for repairing fluidic systems. Components studied include fittings, thread cutting, pipe sweating, solder, accessories, codes, repair equipment and tools. Knowledge and skills involved in replacement of parts, distribution systems and the networking of hydraulic systems arc covered.

502-301 Barber/Cosmetologist Techniques I 12 credits
This course introduces various services performed by the barber/cosmetologist. The emphasis is on hair analysis, shampooing, scalp and hair treatments, facials, basic haircutting and hair styling. Students work on patrons and are given on-the-job instruction to develop the necessary skills.

502-302 Barber/Cosmetologist Techniques II 12 credits
A continuation of 502-301 Barber/Cosmetologist Techniques I, this course emphasizes studies and applications in advanced hairdressing, permanent waving, blow-drying, permanent waving, hair coloring, hair straightening, hair relaxing, thermal hair straightening and facial services. Students continue to work on patrons with instructions while performing these services.

502-303 Barber/Cosmetologist Techniques III 8 credits
A continuation of 502-302 Barber/Cosmetologist Techniques II, this course emphasizes hairstyling, manicuring, hairpieces, facial make-up, advanced perming and coloring. Students are given instruction and additional work on patrons to further develop the necessary skills to pass the State Examination for entrance into the job market.

502-311 Barber/Cosmetologist Theory I 3 credits
Students study hair analysis, shampooing, scalp and hair treatments, facials and basic haircutting.

502-312 Barber/Cosmetologist Theory II 3 credits
Theories of advanced haircutting, chemical services and facial services are presented.

502-313 Barber/Cosmetologist Theory III 5 credits
The theory of hairstyling, nail services, facial make-up, advanced perming and hair coloring is presented.

502-390 Barber/Cosmetologist Science I 2 credits
Tools, equipment, hygiene, grooming and personal development, product knowledge and product use are covered. Emphasis is placed on nomenclature, usage, care and proper selection.

502-391 Barber/Cosmetologist Science II 2 credits
Bacteriology, sanitation, anatomy and physiology, disorders of the hair, skin and scalp, history of barbering and cosmetology, laws, rules, board authority and professional ethics are presented.

502-392 Barber/Cosmetologist Sales and Advertising 1 credit
This introductory sales course stresses 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 customers. The course includes the application of the sales approach, demonstration and close.

503-305 Chemistry of Hazardous Materials 3 credits
This course presents an analysis of hazardous materials classifications as well as specific hazards of materials found in today's environment. Students are given theoretical information and practice in research skills to enable them to prepare for handling of hazardous materials incidents.
503-106 Chemistry of Hazardous Materials II 2 credits
Firefighting tactics associated with chemicals, gases, flammable liquids, corrosives, poisons, explosives, rocket materials, toxic fumes and health hazards are covered in this course.

503-108 Building Construction and Design 3 credits
The basic principles of structural design, as it relates to fire prevention and safety, are covered in this course. The student becomes familiar with various types of construction as well as building codes and fire prevention ordinances related to construction.

503-110 Fire Hazards and Causes 3 credits
This course covers the fundamentals of fire investigation and practices. The student examines the role of the modern fire investigator and the techniques used to determine the cause and origin of various fire situations, including arson.

503-112 Fire Prevention 3 credits
In this course, the student examines and explores the need for a complete and thorough fire prevention program in all areas of society. Fire prevention organizations, both private and public, inspection, interpretation and enforcement of codes and ordinances, as well as reports and records, are covered. Public relations and educational programs are also emphasized.

503-114 Fire Protection Systems 3 credits
In this course, students survey and examine various suppression and detection systems presently in use. The design and operation of sprinkler systems, portable fire extinguishers, foam systems, carbon dioxide systems, dry chemical systems, halogenated agent systems, explosions, suppression systems and various other fire detection systems are studied.

503-120 Equipment and Apparatus 2 credits
This course involves a complete study of conventional and up-to-date firefighting apparatus and equipment. The theory of operation and problems of maintenance are also studied, as well as the considerations for application of new equipment and new equipment purchase.

503-123 First Responder 3 credits
This course is designed to provide a current study of the practical and legal aspects of emergency treatment and the rescue of persons involved in all sorts of situations where loss of life is a prime consideration.

503-125 Fire Suppression 3 credits
In this course, students learn the procedures involved in the task and tactical levels of fire suppression. Basic company functions are studied in conjunction with their role in an incident management system.

503-131 "Principles of Fire Control" 2 credits
This course presents the principles and practices used in fire suppression and control. Students learn the chemistry and physics of fire, extinguishing agents and the different techniques employed in the prevention and extinguishment of fire.

503-134 Introduction to Fire Organization 2 credits
This course provides an overview of the public and private sectors. Specific subjects include history of fire protection, fire protection services, fire science terminology and careers in the fire service field—both public and private.

503-145 Water Supply Hydraulics 3 credits
This course provides a basic knowledge of hydraulics, in theory and practice. The student calculates and computes waterflow problems for municipal, industrial and fire service situations. It is recommended that students with a weakness in math complete Industrial Math I and II before enrolling in this course.

503-150 Standards and Loss Control 3 credits
In this course, students survey and examine the methods and procedures used in preventing and controlling losses in the industrial environment. This course also covers OSHA standards and practices as well as laws and codes governing industry.

503-153 Strategic Operations and Disaster Planning 3 credits
In this course, students learn the procedures involved in the strategic level of incident management. The incident command system is studied in depth in relation to various local, state and federal agencies.

503-160 Hazards of Industrial Processes 3 credits
This course investigates the hazards encountered by fire service personnel in combating fires and other emergency situations in industrial operations. Environmental, chemical, radiological and mechanical hazards are covered.

504-101 Introduction to Law Enforcement 3 credits
This course offers students the opportunity to explore and critically analyze the police role in a free and democratic society. Development of policing society from the perspective of the past, present and future are studied. The course culminates with student groups actively debating a contemporary police issue using the "advocates" format.

504-102 Organization and Administration 3 credits
This course is designed as an introduction to managerial theory and organizational behavior. Universal concepts which apply to all work situations are presented. The course is intended to be a prerequisite to all other management courses. The objective is to provide students with knowledge and insight about organizations in order to improve student success later as an organizational member. Additionally, students research and design, as group members, a screening and selection program similar to public safety hiring programs presently in practice.

504-111 Criminal Justice Administration 3 credits
This course is a survey of the criminal justice system, from English Common Law heritage to the present. Major emphasis is on presenting students with an overview of the system, its organization and operation.

504-113 Criminal Law Procedures 3 credits
This course provides students with an in-depth view of criminal law beginning with a study of procedural law and terminating with an analysis of substantive criminal law, its scope, definition, classification, and the elements constituting some of the more common crimes. Prerequisite: 504-111 Criminal Justice Administration.

504-115 Criminal Evidence 3 credits
In this course, students are introduced to the basic principles of evidence, including the constitutional limitations imposed on law enforcement authorities with respect to the following areas: probable cause for arrest, arrest, search and seizure, interrogation and confessions. The course also covers evidence from the perspective of the practical problems of evidence gathering and courtroom presentation. Prerequisite: 504-113 Criminal Law Procedures.

504-116 Constitutional Protections and Interrogation Procedures 3 credits
The objectives of this course are two-fold: first, to acquaint students with the constitutional limitations imposed on law enforcement personnel with respect to interrogation and confessions; secondly, to familiarize students with the general theories governing the interrogation process and the techniques for achieving effective persuasion. Specifically, to 1) break down, define and explain morphology of formed questions and its influence on respondents; 2) learn and explain the legal requirements associated with questioning witnesses and suspects as valid influential evidence in court; 3) define the physiological response to structured questions and what they imply; and 4) observe and participate in interrogation exercises. Prerequisite: 504-115 Criminal Evidence.

504-121 Patrol Procedures 3 credits
This course deals with the patrol operation as it exists in the modern police department. It analyzes the varied methods of patrol, activities, responsibilities and deployment and distribution problems. The course also explores the role of the patrol unit in police and community relations and crime prevention.

504-123 Criminal Investigation 4 credits
This course is designed to acquaint students with the basic techniques of investigation procedures which include: crime scene procedures, collection and preservation of evidence, evaluation and comparison of evidence. Students also learn to develop sources of information and surveillance techniques. Laboratory exercises enable students to obtain hands-on train-
### COURSES 504-131 TO 508-324

**504-131 Traffic Investigation and Enforcement** 3 credits  
This course encompasses a study of traffic laws, their basis, development and integrated relationship with Wisconsin Motor Vehicle Law. A course objective is to enable students to understand human failures and reactions as operators of motor vehicles. The use of discretionary power, and necessary coordination with traffic engineers, statisticians and educators, by enforcement representatives on local, state and national levels for the welfare and safety of the public is also covered.

**504-136 Juvenile Procedures I** 3 credits  
This course is a basic study of juvenile delinquency which emphasizes factors and causes that result in delinquent behavior. The juvenile (adolescent) is examined from a contemporary standpoint relative to societal changes.

**504-137 Juvenile Procedures II** 3 credits  
This course deals with the juvenile justice system. The philosophy of the juvenile court is examined. Wisconsin's Children's Code is studied, and the juvenile as a victim is discussed. Prerequisite: 504-135 Juvenile Procedures I.

**504-141 Technical Report Writing** 3 credits  
Basic writing skills are reviewed in preparation for learning to document, in a clear, concise and accurate fashion, the essential elements of information contained in police reports. It is recommended that students complete 801-151 and 801-152, Communication Skills I and II, before enrolling in this course.

**504-145 Investigative Photography** 3 credits  
This course is a basic introduction to photography, the use of the camera, understanding film characteristics and purpose, darkroom procedures, problems of film contrast, photo enlargements and basic procedures in portrait, scenery, crime scene and evidence photography. An objective of the course is to enable the student to understand legal and courtroom requirements, as well as the problems of prejudicial and probative value of photos for court evidence.

**504-146 Forensic Photography** 2 credits  
This course is an advanced follow-up to 504-145 Investigative Photography. It covers use of the camera for crime scene photography, macrography and micrography. Forensic applications of ultraviolet and infrared photography for comparison analysis and preparation of enlargements for courtroom presentation are also covered.

**504-150 First Responder** 3 credits  
This course deals with the immediate and temporary care given in case of accident, illness or emergency childbirth. This course qualifies students for the standard or advanced Red Cross First Aid Certificate.

**504-154 Advanced Criminal Investigation** 3 credits  
This course makes an in-depth study of selected crime areas such as arson, narcotics, homicide, etc. It discusses the scope of the problem as it pertains to law enforcement. Investigative procedures unique in dealing with those specific criminal investigation areas are explored.

**504-175 Special Problems** 1-3 credits  
This is a specialized and highly-individualized course in criminal justice problems that may cover most any technical aspects of criminal justice--as agreed between the instructor and the student. The credits are based on the type of study assignment, field training or experience gained.

**504-180 Practical Police Problems** 3-6 credits  
This program presents the student with an opportunity to integrate learned classroom theory and skills with real-life experience under the direct supervision of police practitioners. The student is placed within a police agency to interact, observe closely and participate to a limited degree--with practitioners during the performance of their regular duties. Furthermore, each student receives intense one-on-one instruction in developing useful police reports based on field experience. Prerequisite: completion of two semesters in the Police Science program.

### 508 Dental Assisting

**508-304 Dental Materials II** 2 credits  
The chemical and physical composition, functions and limitations of the materials used in dentistry are discussed in this course. Laboratory exercises are provided to acquaint the student with various laboratory procedures used in dentistry.

**508-305 Dental Theory I** 2 credits  
Topics covered in this course include: microbiology, sterilization, oral hygiene, dental decay, nutrition and preventive dentistry.

**508-307 Dental Theory II** 1 credit  
This course involves study of the etiology and pathology of diseases of the oral cavity. An overview of dental office practice, as it relates to drugs and the assistant's role in dispensing them, is also covered.

**508-308 Dental Materials I** 2 credits  
This course provides a discussion of various types of restorative materials used in dentistry. The uses of plaster of Paris, stone models and impression materials in dentistry are covered. Laboratory exercises are required to acquaint the student with various materials.

**508-310 Dental Anatomy** 2 credits  
This course consists of 1) a survey of structure and function of the body in general, i.e., skeletal system, cardiovascular system, respiratory, central nervous system, and reproduction; and 2) a study of the human dentition, dental terminology, and growth and development of the oral cavity: Topics such as dental and oral anomalies, bones of the head, nerve and blood supply to the head and neck, muscles of mastication and facial expression, sinuses, tonsils and salivary glands are also covered. Students draw various teeth from different aspects to better acquaint themselves with the anatomy of each tooth. Time is also spent studying human skulls and models.

**508-320 Dental Practice Administration** 1 credit  
This course deals with the business aspect of dental offices. Topics studied include confidentiality, ethics and jurisprudence. Students also receive instruction in appointment scheduling, recall systems, telephone techniques, office forms, laboratory cases, mail, financial arrangements and bookkeeping systems. In addition, topics such as interviewing for a job, job application and personnel policies are covered. In general, this course helps prepare the dental assisting student for employment as a receptionist or business assistant in a dental office.

**508-321 Chairside Theory I** 2 credits  
This course involves study of the theory related to the skills needed in chairside dental assisting. Some of the topics which are included are equipment use and maintenance, the function of instruments, properties and uses of aesthetics, cavity classification and preparation, operative dentistry and dental prophylaxis.

**508-322 Chairside Techniques Laboratory I** 2 credits  
This course encompasses instruction and practice in chairside dental assisting skills. These skills include use and maintenance of equipment, oral evacuation, receiving and dismissing patients, preparing restorative materials, instrument identification, instrument transfer, local anesthesia, dental prophylaxis and fluoride application.

**508-323 Dental Assisting Radiography** 2 credits  
In this course, students become familiar with the nature of Roentgen rays, the physics of x-ray machines and radiation protection. Laboratory emphasis is on processing and mounting radiographs and developing intra-oral radiographic techniques.

**508-324 Chairside Theory II** 1 credit  
This course continues study of the theory and skills needed in chairside dental assisting. Emphasis is placed on four-handed dentistry and expanded duties. Included are oral inspection, orthodontics, periodontics, oral surgery, periodontics, endodontics, prosthodontics, public health, geriatric dentistry, and dentistry for the disabled patient.
508-325 Chairside Techniques Laboratory II 1 credit
This course offers instruction and practice in chairside dental assisting skills—both traditional and in expanded functions. Included are oral inspections, orthodontics, oral surgery, periodontics, endodontics, instrument sharpening and review of selected first semester items.

508-335 Clinical Affiliations 1 credit
Affiliations are scheduled in general practice offices, specialty offices, the city-county clinic, and the dental hygiene clinic. The student assists and observes in these offices, under the supervision of a licensed dentist and the employed dental assistant. Students are visited by an instructor approximately every five days.

508-336 Clinical Affiliations II 4 credits
This is a continuation of 508-335 Clinical Affiliations. At the end of the course, the student will have affiliated a minimum of 300 hours.

508 Dental Hygiene

508-101 Clinical Dental Hygiene Laboratory II 2 credits
The emphasis of this course is on application of the theory, principles and further study of dental instrumentation, including practice on lab partners and eventual treatment of oral prophylaxis patients in a clinical setting.

508-103 Clinical Dental Hygiene Theory II 2 credits
This course encompasses the study of patient assessment procedures, including treatment planning, phase microscopy, oral indices, vital signs, patient counseling and nutritional assessment.

508-105 Dental Hygiene Theory and Laboratory I 4 credits
This course is designed to provide students with knowledge and understanding of the principles of clinical dental hygiene. Emphasis is placed on the development of skills used in prevention, recognition and initial treatment of dental and periodontal disease.

508-113 Tooth Morphology 1 credit
This course involves a study of dental nomenclature, anatomic form, function, functional relationships and supporting structures of human primary and secondary teeth.

508-117 Clinical Dental Hygiene Theory III 2 credits
A continuation of Clinical Dental Hygiene Theory I, this course studies advanced instrumentation procedures and further assessment procedures, including x-ray interpretation, pain control, four-handed dentistry, nutritional counseling and possible expanded functions.

508-118 Clinical Dental Hygiene Laboratory III 4 credits
A continuation of Clinical Dental Hygiene Laboratory I, this course puts special emphasis on advanced instrumentation techniques and an in-depth study of a preventive therapy case employing all assessment and prophylactic techniques learned thus far.

508-123 Clinical Dental Hygiene Theory IV 1 credit
This continuation of Clinical Dental Hygiene Theory II emphasizes job selection, the dental hygienist in private practice, special needs patients, and an in-depth review of previous studies for national examination.

508-124 Clinical Dental Hygiene Laboratory IV 4 credits
This continuation of Clinical Dental Hygiene Laboratory II offers further practice of techniques and procedures already learned.

508-128 Dental Materials 2 credits
This course is an introduction to the nature, qualities and general characteristics of modern dental materials and dental operative procedures. Sources, properties, uses and techniques of manipulation for materials commonly used in dentistry are covered. Laboratory practice is provided for preparation of materials used for restorations, impressions and models.

508-131 Dental Emergencies 1 credit
This course is a combination of both the didactic and practical content of the American Heart Association's basic life support course. It provides training in more advanced emergency care techniques for emergencies more likely to be encountered by dental professionals in an office setting. Successful completion of the course entitles the student to be certified in basic life support. The course also surveys and provides ways of managing emergencies that are dental in nature, i.e. lost filling, abscess, traumatic injury to the mouth, etc.

508-139 Periodontics 2 credits
This course involves a study of the periodontium-etiology, classification and characteristics of periodontal disease, a study of the cause, prevention and treatment of periodontal disease with clinical application and role of the dental hygienist.

508-138 Dental Hygiene Radiography 2 credits
This course involves a study of the nature, effects, generation and use of Roentgen rays. Discussion and practice with equipment, materials, safety measures and techniques followed in making dental roentgenograms are covered. The course features lectures and demonstrations of the application of Roentgen rays for dental diagnostic purposes. Electrophysics of the equipment, position of films, angulation of the machine and processing and mounting of dental radiographs are also discussed.

508-139 Histology 2 credits
This course encompasses an overview of embryological processes, especially those involved in the formation of face, oral and dental structures. A study of cells and tissues is presented, along with a study of the composition and microscopic anatomy of the teeth and their supporting structure.

508-142 Pharmacology 2 credits
This course involves a study of the principles of pharmacology and the pharmacology of representative drugs which are in current use and affect dental practice. Special consideration is given to antibiotics, sedatives, pain-relieving drugs and anesthetics.

508-145 Pathology 3 credits
This course is an attempt to understand oral disease so that it can be properly diagnosed and adequately treated. It presents a correlation of human biology with the clinical signs and symptoms of oral disease. Where possible, the prognosis of each disease is considered as a reflection of underlying tissue alteration and of contemporary therapeutic measures. Emphasis is placed on the physiological and chemical aspects of oral disease.

508-148 Oral Anatomy and Physiology 2 credits
This course involves a study of the anatomy and physiology of the head and neck. Detailed study of osteology, myology, neurology and the circulatory system is offered. Students also cover the effects of normal and abnormal respiration, swallowing and mastication on teeth.

508-190 Personal and Community Health 2 credits
This course is designed to help the student develop an appreciation of the origin and development of the public health movement, the scope of current public health concerns and the role of government in the formation of policy and in the organization and provision of health services. An objective of the course is to develop an understanding of public health methods and an awareness of the dental hygienist's role in the promotion of dental health within the context of the total health of the community. The course is also designed to create awareness of some of the current issues pertaining to the provision, delivery and financing of health care services.
509-10 Medical Assistant

509-110 Medical Records 3 credits
This course is designed to help students become acquainted with medical records and statistical reports as they are prepared, used, and stored in a clinic, nursing home, or hospital. Students learn to become familiar with the various types of medical insurance, to increase their knowledge of medical terminology, to learn medical abbreviations, and to be aware of the need for strict release of information policies. Prerequisite: 509-180 Medical Terminology I and 509-181 Medical Terminology II.

509-111 Medical Terminology and Records 3 credits
This course is designed to be a continuation of 509-180 Medical Terminology I. It includes the study of medical insurance, commonly-used medical records, and policies and procedures related to the preparation, use, and storage of medical records. Prerequisite: 509-180 Medical Terminology I.

509-180 Medical Terminology I 2 credits
This course is designed to help the student become familiar with medical terminology, to understand how medical terms are formed, to become familiar with the meaning of many word roots, prefixes and suffixes, to be able to spell, define and pronounce many medical terms, and to form a working knowledge of a medical dictionary.

509-181 Medical Terminology II 2 credits
This course continues the study of medical terminology and includes the study of the American Medical Association's style manual. Students learn the meaning of many word roots, prefixes and suffixes, to be able to spell, define and pronounce many medical terms, and to become skilled in the use of a medical dictionary.

509-303 Body Structure and Function 2 credits
This course is a concise introduction to basic body structure and function and includes normal and abnormal states of the body, basic concepts of hygiene, human pathology as it affects each body system, nutrition, physical fitness and human sexuality are presented. Common problems encountered in the medical office and clinic are emphasized.

509-313 Practice Management 1 credit
This course introduces the practices of a physician's office and how medical terminology is used in the workplace. Concepts and procedures involving the use of medical terminology are presented.

509-314 Law and Ethics 1 credit
This course introduces the practices of a physician's office and how medical terminology is used in the workplace. Concepts and procedures involving the use of medical terminology are presented.

509-318 Health Concepts 1 credit
This course introduces the practices of a physician's office and how medical terminology is used in the workplace. Concepts and procedures involving the use of medical terminology are presented.

509-355 Clinical Lab I 3 credits
This introductory course is designed to acquaint students with simple laboratory techniques that may be performed by a medical assistant in a physician's office. Through demonstration and practice, students learn to perform common tests used in the medical office. Simple microbiology and anatomy testing are emphasized.

509-356 Clinical Lab II 3 credits
This course is designed to extend the student's learning to include phlebotomy and simple hematology techniques. Prerequisite: satisfactory completion of 509-355 Clinical Lab I.

509-360 Medical Terminology I 2 credits
This course is a basic introduction to the use of medical terminology. Emphasis is placed on recognition, division, definition, spelling and pronunciation of word parts. Medical terms are used in each unit as they pertain to anatomy and physiology in health and disease.

509-361 Medical Terminology II 1 credit
This course focuses on special medical terminology, including abbreviations used in medical records and prescriptions; pharmacological terms, especially categories of drug action; diagnostic imaging and cancer terminology; and review of basic medical terminology through an analysis of a medical paper. Students present current events and conduct discussions.

509-362 Clinical Assisting I 3 credits
This 13-week course focuses on assisting the physician with special diagnostic procedures, including electrocardiography, and assisting with minor surgery, plus administration of medication. Prerequisite: satisfactory completion of 509-316 Clinical Assisting I.

509-365 Office Procedures 2 credits
This course focuses on assisting the physician with special diagnostic procedures, including electrocardiography, and assisting with minor surgery, plus administration of medication. Prerequisite: satisfactory completion of 509-316 Clinical Assisting I.

509-370 Externship 2 credits
This course is a basic introduction to the use of medical terminology. Emphasis is placed on recognition, division, definition, spelling and pronunciation of word parts. Medical terms are used in each unit as they pertain to anatomy and physiology in health and disease.

509-371 Medical Office Emergencies 1 credit
This course is a basic introduction to the use of medical terminology. Emphasis is placed on recognition, division, definition, spelling and pronunciation of word parts. Medical terms are used in each unit as they pertain to anatomy and physiology in health and disease.

510-103 Body Structure 3 credits
This course is designed to provide a basic and concise introduction to the structure and function of the human body including information on normal and abnormal conditions of each body system, and fundamental knowledge to maintain body efficiency and prevent disease. The course includes the proper utilization of medical terminology, spelling and pronunciation as it relates to the body systems.

510-105 Nursing--Associate Degree 6 credits
This course is designed to assist students in the development of their roles as associate degree nurses. Included are cognitive, affective, and psychomotor behaviors basic to the practice of nursing. The course introduces the four curriculum concepts of basic human needs, life cycle changes, common well-defined health problems, and the five roles of the associate degree nurse. Using basic human needs according to Maslow, students are introduced to the physiology needs of oxygen, activity, rest, nutrition, elimination and comfort. The safety and security needs of skin protection, protection from physical injury, freedom from infection, and freedom from emotional jeopardy are introduced, as well as the love and belonging needs of acceptance and spirituality. The concept of common well-defined health problems and its relationship to the client's ability to meet basic needs is presented. Emphasis is placed on the following roles of the associate degree nurse: 1) provider of care as they implement basic nursing care for clients in the clinical setting; 2) communicator as they begin to use therapeutic communication techniques when interacting with clients; and 3) member within the profession focusing on the role of the student in the profession. Students learn about life cycle changes and how they affect human needs. When planning care for various age groups, consideration is given to developmental tasks, cognitive ability, vulnerability, and stress related to hospitalization, loss and culture. Students are introduced to the nursing process with emphasis on client assessment.
510-130 Nursing Ethics and Trends 1 credit
This course emphasizes the role of the associate degree nurse as a member of the profession of nursing as well as transition to the level of a registered nurse. Levels of practice, the role of the associate degree nurse, and legal responsibilities related to nursing practice are explored. In addition, the structure and purpose of the State Board of Nursing, process for licensure, and employment responsibilities and opportunities are included. The course also introduces the student to current ethical and health care issues as well as trends in nursing. The function of nursing organizations is also presented. Prerequisites: 510-105 Nursing Fundamentals, 510-140 Nursing Process I, 510-141 Nursing Process II, 510-142 Nursing Process III, 510-143 Nursing Process IV.

510-140 Nursing Process I 5 credits
This course is designed to help the student develop an understanding of the role of the nurse as well as selected human needs and how they are affected by life cycle events and common well-defined health problems. The life cycle concepts of the normal aging processes, including physiological changes, psychosocial changes, cultural aspects and loss, are explored. Needs for activity and mobility, safety and security, and self-esteem are emphasized specifically as they relate to common neuromuscular, orthopedic and sensory health problems. The provider and communicator roles of the nurse are emphasized with focus on the assessment, planning and implementation steps of the nursing process when caring for an individual client. Clinical experiences are provided in structured health care settings with adult clients. Prerequisite: 510-105 Nursing Fundamentals.

510-141 Nursing Process II 5 credits
This course is designed to help the student develop an understanding of the role of the nurse as well as selected human needs and how they are affected by life cycle events and common well-defined health problems. Physiological, safety and security, love and belonging and, to a limited extent, self-esteem needs of clients are explored. The life cycle concepts of family dynamics during times of change and loss are developed. The effects of the individual's illness, hospitalization or disability on the family unit are explored. Application of growth and development and family concepts is made to the health care of preschool and school-age children. Client needs of nutrition, elimination, safety-security, and love/belonging are emphasized specifically as they relate to cancer, gastrointestinal health problems and basic unilegal health problems. The provider and communicator roles of the nurse are emphasized with focus on the assessment, planning and implementation steps of the nursing process when caring for individual clients throughout the life cycle. Clinical experiences are provided in structured health care settings. In addition, the role of the student as a member in the profession of nursing is further developed, and the role as client advocate is introduced. Prerequisite: 510-105 Nursing Fundamentals.

510-142 Nursing Process III 5 credits
This course is designed to help the student develop an understanding of the role of the nurse and selected human needs and how these are affected by life cycle events and common well-defined health problems. The course looks at the physiological, safety and security, love and belonging and, to a limited extent, self-esteem needs of the clients. Clients' needs for safety and security and nutrition and elimination are emphasized as they relate specifically to neurological, fluid and electrolytes, reproductive, endocrine, and urinary health problems. The teacher and evaluator roles of the nurse are emphasized with focus on all four steps of the nursing process when caring for individual clients throughout the life cycle. Clinical experiences are provided in structured health care settings. In addition, the roles of the student as a member in the profession of nursing and as a client advocate are further developed. Prerequisites: 510-105 Nursing Fundamentals, 510-140 Nursing Process I, 510-141 Nursing Process II.

510-143 Nursing Process IV 5 credits
This course is designed to help increase students' understanding of the role of the nurse and how human needs are affected by life cycle events and common well-defined health problems. Life cycle events and concepts concerning the infant, toddler, adolescent, young adult, and childbearing family are explored. While the physiologic and safety needs continue to be stressed, the needs of love and belonging and self-esteem are emphasized. The provider and communicator roles of the nurse continue to be developed, and the evaluation step of the nursing process is stressed. The role of the client teacher is an added focus of classroom and clinical experiences. Clinical experiences are provided in structured health care settings with a focus on childbearing families and families with sick children. Licensed practical nurses admitted to the program with advanced standing may have the opportunity to challenge selected aspects of the course. Prerequisites: 510-105 Nursing Fundamentals, 510-140 Nursing Process I, 510-141 Nursing Process II.

510-144 Nursing Process V 5 credits
This course is designed to help the student integrate the five roles of the associate degree nurse when meeting selected needs of clients that may be affected by life cycle events and/or common well-defined health problems. Application for life cycle concepts to middle adulthood is a focus of this course. The physiological need for oxygenation is emphasized specifically as it relates to common well-defined health problems of the cardiovascular, hematologic and respiratory systems. Other needs, physiologic, safety-security, love and belonging, self-esteem and, to a limited extent, self-actualization are integrated. The five roles of the associate degree nurse are integrated in classroom and clinical experiences. Managing client care is a particular emphasis of the clinical experience. Clinical experiences with adult clients are provided in structured acute care settings. An observational experience in a medical-surgical intensive care setting is also provided. Prerequisites: 510-105 Nursing Fundamentals, 510-140 Nursing Process I, 510-141 Nursing Process II, 510-142, Nursing Process III, 510-143 Nursing Process IV.

510-145 Nursing Process VI 5 credits
The focus of this course is on integration of the four unifying concepts of the curriculum: human needs, life cycle, common well-defined health problems, and roles of the nurse. Emphasis is placed on the roles of the nurse as communicator, manager and member within the profession. Additionally, evaluation of self in the development and integration of all five roles of the nurse is emphasized. Clinical experiences are provided with adult clients in structured health care settings. Experience with psychiatric clients is provided. Licensed practical nurses are provided an opportunity to challenge the theory portion of psychiatric nursing. Prerequisites: 510-105 Nursing Fundamentals, 510-140 Nursing Process I, 510-141 Nursing Process II, 510-142 Nursing Process III, 510-143 Nursing Process IV.

510 Practical Nursing

510-334 Elementary Nursing 5 credits
This course is designed to teach basic nursing skills and the underlying principles needed by the student to assume his/her responsibilities as a practical nurse. This knowledge and skill enabled the student to function in relatively simple situations and to assist the registered nurse as an integral part of the nursing team in the care of more acutely ill patients. Lectures and demonstrations are supplemented by laboratory and clinical experiences in hospitals and nursing homes. Selected learning experiences in these clinical areas are under direct supervision of instructors from the college. Consideration is given to the role of the practical nurse within the framework of various methods of nursing care delivery systems and the use of the problem-solving approach to nursing care. Basic skills are stressed to develop healthy and effective relationships with other members of the health team.

510-335 Body Structure 2 credits
This course provides an insight into basic human anatomy and physiology including fundamentals needed for the understanding and evaluation of health practices related to each system and the body as a whole.

510-336 Nursing the Adult Patient I 4 credits
This course, intended as a foundation for 510-337 and 510-338, Nursing the Adult Patient II and III, covers basic concepts of health, illness and nursing care applicable to the adult. The student is introduced to the nursing process and to new medical terminology. The initial focus is on home-
ostasis and preventive aspects of health care, and then includes imbalances common to many illnesses and the patient needs created by these conditions. Emphasis is placed on nursing involvement in total patient care. Also included is an introductory unit to pharmacology. A supervised clinical experience in a general hospital or nursing home facility that incorporates theory with direct patient care is a component of this course.

510-337 Nursing the Adult Patient II (including Geriatric Nursing) 7 credits
This course gives the student the opportunity to study, in greater depth, the more common conditions affecting each body system. Emphasis is on nursing care and intervention therapy within the practical nursing role. Also included is an overview of drug therapy. The student studies the general characteristics, uses, side effects and nursing implications of drug therapy according to classification and system usage. In addition to a supervised general hospital experience, the student has experience in a nursing home setting with emphasis on the developmental needs of the older adult. A unit on cardiopulmonary resuscitation (CPR) is included.

510-338 Nursing the Adult Patient Ill and Law 5 credits
A continuation of 510-337, this course studies the legal aspects of nursing in relation to the roles of the practical nurse.

510-339 Interpersonal Relationships in Nursing 1 credit
This course introduces the student to his/her personal and vocational responsibilities as a student in the Practical Nursing program. It examines the complex means of communication, the behavioral and cultural aspects that influence its cause, and the dynamics of the nurse-patient relationship. The development of communication skills in the nursing situation and the techniques utilized in developing interpersonal relationships are explored. The role of the practical nurse within the framework of various health care delivery systems and the use of the problem-solving approach to nursing care is explored. The development and utilization of the nursing process and charting are introduced. The ethical and legal responsibilities of both a student and practicing practical nurse, are identified. The foundation for identifying the patient needs is established through an understanding of human development using the theories of Maslow, Erikson, Freud and Beck. The basic concepts of stress, how it affects human behavior, and stress management are incorporated.

510-356 Growth and Development 2 credits
This course is designed to help the student gain an understanding of the developing person from fetal development through adult life. It includes normal growth and development and appropriate development tasks. Gerontology is discussed with an emphasis in preventive nursing and care of the older adult in the nursing home and hospital. The tasks of facing death are explored. The study of nutrition and nutritional requirements during the life cycle are included. Areas covered are vitamins, minerals, fats, protein, carbohydrates, cellulose and water. Understanding cultural and religious food preferences, consumer information and safe food handling are incorporated. Alternations of nutrients to meet the needs of altered physiological function is discussed.

510-359 Nursing Mentally Ill 3 credits
This course provides students with a basic understanding of the dynamics of human behavior so they may better understand themselves and patients. The understanding is built on recognition of healthy and unhealthy coping mechanisms with emphasis on the symptomology of behaviors. The course includes a supervised experience in care of the mentally ill in a psychiatric facility.

510-362 Parent-Child Nursing 4 credits
This course is designed to assist the student practical nurse in developing a broad perspective of the meaning of family-centered parent-child nursing. Basic information about normal developmental changes and health maintenance provides the framework for meeting the needs of the normal family and the ill child. Clinical experience to enhance the student practical nurse’s understanding of his/her role on the health team are provided in structured settings including a hospital, family practice and pediatric clinic.

CO U R S E S  510-337 TO 511-130

511-104 Introduction to Gourmet Food Preparation 4 credits
This course provides the student with basic gourmet kitchen techniques and functions. It prepares the student for making various stocks for the preparation of basic sauces, and provides basic knowledge of a variety of gourmet soups and garnishes. The foods served in these classes are available to the student body, faculty and staff.

511-105 Sanitation 1 credit
This course provides an understanding of food service sanitation principles and the role of food service personnel in the prevention of contamination and foodborne illness.

511-106 Food Science Theory Laboratory 1 credit
The basic methods of food preparation, standards, principles and techniques used in the preparation of fruits, vegetables, meat, poultry, fish, gelatin, eggs, milk, cheese, fats and oils, soups and sauces, salads and sandwiches, and bakery products are studied. Sanitation in food service is also included.

511-108 Bakery I 1 credit
In this course, students obtain understanding of the fundamental principles of baking. Starchy foods, breads, pies, cakes, Danish pastry, puff pastries, breads and doughnuts are explained in theory and prepared in the laboratory by students.

511-109 Food Preparation Laboratory I 6 credits
Food preparation for the college cafeteria provides experience in preparing food in quantity. Students are assigned through a rotational system to all stations of the kitchen. Basic menus for all entrees are used, with emphasis on the selection of items which give the student the widest experience in preparing a variety of popular entrees. The course includes preparation of all types of food—meat, fish and fowl, fresh, canned and frozen vegetables, fancy products and casseroles cooking. It also includes principles of thickening agents, techniques and preparation of basic stocks and sauces, meat cutting, boning, tying and portioning, elementary storeroom operations and procedures. Inter-related to all areas are the essentials of hygiene, safety and sanitation.

511-112 Food Preparation Laboratory II 6 credits
A continuation of 511-109, this course includes work schedules, formulas and costs needed to actually fulfill the menus being offered in the faculty and student dining rooms. Job analysis and worksheets are completed for each task to be performed. Supervision is provided for all food preparation and service areas.

511-117 Meat Science 3 credits
This course covers the history and economics of the meat packing industry. Meat inspection and identification of wholesale and retail cuts of beef, pork, lamb, veal and variety meats is covered. Proper cooking methods for each cut of meat, together with the cost and yield, are included. Each student experiences meat cutting procedures and practices used in quantity food preparation.

511-118 Food Service in Institutions 3 credits
Emphasizing the service (dining room) phase of restaurant operations, this course examines traditional service techniques as well as current service trends, explores dining room organization and staffing for effective service, develops in-house food and beverage selling strategies. Students concurrently enrolled in 511-104 Gourmet Foods apply ideas developed in this class as well as analyze their actual experiences in the dining room. Instructional methods include team teaching.

511-130 Gourmet Foods 4 credits
A continuation of 511-104, this course includes the preparation and service of all gourmet foods. Lectures and demonstrations are given on the use of herbs and wineries in international-style cooking. The course covers the fundamental principles of food preparation and cookery as it relates to classic cuisines. All varieties of sauces are prepared along with the artistic arrangement and display of foods. The classical menus are studied with emphasis placed on special foods which require extra care and art in their preparation. The foods served are available to the students, staff and faculty of the college.
511-133 Ice Sculpturing and Decorative Foods 2 credits
Using the appropriate tools and techniques, ice sculptures for show pieces are created by students. Decorative show pieces needed to accent a buffet table are covered. Chaud froid work and glazes are also included. The classical art of pulled sugar work is taught, demonstrated and applied by the students for artistic displays, show pieces and culinary exhibits.

511-140 Culinary Language 1 credit
This course introduces students to the sounds and structures of several foreign languages important to the culinary world. Students are engaged in producing correctly written menus and pronouncing culinary terms acceptably. Based on a humanistic approach to learning, this course allows students to enjoy increased self-confidence and to appreciate the learning situation.

511-152 Menu Planning and Nutrition 2 credits
This course covers the principles of menu planning for various types of food service operations. Nutritional qualities and functions of food as they apply to various menus and diets are also discussed.

511-158 Food Costs and Percentage Analysis 3 credits
This course covers the calculation of food costs and the use of food cost records. Problems are presented that are related to cost factors. Pricing of menu items and a study of labor costs and the effect they have on the overall operational costs is included. The mechanics of food and beverage purchasing are also included in the course curriculum. The course covers what and where to buy, the selection of suppliers, the various purchasing systems, and the practical aspects and legal considerations of food buying.

511-169 Food Management 2 credits
This course covers the principles and techniques in food preparation for the student preparing for hotel and restaurant management. Students successfully completing the course should have an understanding of how to prepare basic menu items using a variety of methods and equipment. In addition, students should know basic principles of plate presentation, with attention to timing and coordination for actual service. Instructional methods include instructor demonstration and student participation.

511-185 Food Service Layout and Design 2 credits
This course covers the planning of food service layouts to meet the requirements of specific types of food operation. Students complete plans that include the essential equipment required for the various types of food services. Storage and sanitation requirements are stressed to fit into each specific plan.

511-193 Job Orientation 1 credit
Job Orientation provides students with specific occupational information to prepare them for seeking employment. Personal data sheets, job interviews, letters of introduction and recommendation are covered. Former graduates are invited to discuss needs of the student before employment. Representatives of labor, management, business and the professions are invited to discuss points of interest toward becoming an employee.

512-300 Introduction to the Operating Room 1 credit
This course is an introduction to the Surgical Technician program, the student's function, hospital organization and lines of authority. A brief history of surgery is presented. Stress is given to developing an understanding of the meaning and correct usage of medical-surgical terminology, weights and measures, introduction to metric system and pharmacology, and moral and legal responsibilities.

512-303 Surgical Technician Anatomy I 2 credits
This course is designed to provide students with a concise introduction to the human body structure and function. The normal state of the body is presented to enable the student to more effectively assist in the surgical procedure. The student should acquire knowledge of the location of body parts, their structure and main functions. Limited reference is made to abnormalities and what happens when body parts do not function together due to disease, injury or malfunction.

512-310 Surgical Technician Communications 1 credit
This course is designed to introduce the student to the fundamentals of communication, with an emphasis on modes of communication most frequently used in the clinical environment. Skills related to attainment of employment are also emphasized.

512-315 Surgical Technician Theory and Laboratory I 8 credits
In this course, lectures and demonstrations are supplemented by clinical experience in the operating room. Emphasis is placed on the evolution of surgical asepsis, the process of prevention and control of infection, care and safety of the surgical patient, principles of operating room techniques, specific surgical procedures, and related hospital and nursing activities. Development of the role of the scrub technician and the assisting circulator is stressed.

512-317 Functional Microbiology 1 credit
This course is designed to introduce students to the study of morphology and classification of micro-organisms and their effect on human body tissue. It includes a study of the infectious process and the transmission of infectious diseases. Immunology, nosocomial infection and common diseases are studied. Methods of control by means of packaging, sterilization and processing are stressed.

512-320 Surgical Technician Theory II 2 credits
This course is designed to give students a working knowledge of surgical procedures involved (including the anatomy of the areas and pathophysiologic), positioning, surgical preparation, draping, instruments and accessory or special equipment needed for each specific surgical procedure. A unit on cardiopulmonary resuscitation (CPR) is included.

512-321 Surgical Technician Anatomy II 1 credit
This course is directly related to the surgical procedures seminar. It is designed so that students review, expand and associate specific body structures with related surgical procedures.

512-323 Surgical Technician Laboratory II 12 credits
During this course, clinical experience is provided in hospital operating rooms. Students practice and perfect operating room skills under strict supervision employing adaptation consistent with individual hospital procedures. Students learn to function in ambulatory surgery, recovery room and central supply. Clinical conferences are conducted daily to clarify learning experiences in each clinical area.

513 Medical Laboratory Technician

513-100 Introduction to Medical Laboratory Careers 3 credits
This course provides an introduction to the profession of medical technology and the tasks of the medical laboratory technician. It includes the study of medical terminology, ethics, legal issues, first aid, CPR, the collection of blood specimens, and performance of basic hematology procedures.

513-101 Clinical Microscopy 3 credits
This course covers the physical, chemical and microscopic examination of urine, some special procedures performed on urine, and an introduction to stool analysis, semen analysis and pregnancy testing.

513-104 Hematology 5 credits
This course covers the study of blood, hematopoiesis, principles and procedures for routine hematology tests in the clinical laboratory, principles and procedures for selected special hematology tests in the clinical laboratory, coagulation and blood disorders. Prerequisite: 513-100 Introduction to Medical Laboratory Careers, or consent of instructor.
514-107 Instrumentation 2 credits
This course involves study of the fundamentals of clinical laboratory instrumentation, which includes the principles of electricity, the principles of operation, routine cleaning and maintenance of clinical laboratory instruments, and special procedures as applied to specific instruments.

514-108 Clinical Immunology 5 credits
This course provides theoretical background and practical application of immunological principles in serology, immunochromy and immunohematology. Emphasis is on the serodiagnostic methods used for identification of certain disease states and compatibility testing with related testing programs. Prerequisite: 513-104 Hematology, or consent of instructor.

514-109 Clinical Chemistry 5 credits
This course covers the study of gravimetric, titrametric, colorimetric, spectrophotometric, electrophoretic, potentiometric, and automatic blood chemistry procedures which include glucose, BUN, proteins, carbohydrates, liver function tests, preparation of standard curves, quality control and other body fluids special tests. Prerequisites: 806-201 General Chemistry or 806-209/806-210 General Chemistry I and II.

514-110 Clinical Microbiology 5 credits
This course involves in-depth study and application of laboratory methods used in the isolation and identification of pathologic microorganisms especially for bacteria, parasites and fungus, and sensitivity testing of antimicrobial agents. This course also provides an overview of the clinical basis of infection and the specimen collection procedures for viral and rickettsial diseases. Prerequisites: 806-203 General Microbiology.

514-112 Seminar 1 credit
This program is divided into two parts: the Pre-Practicum Seminar and the Post-Practicum Seminar. The Pre-Practicum Seminar, held prior to the practicum assignment, is designed to prepare medical laboratory technician students for the practicum. Prerequisites: completion of all program courses except Practicum and Pre-Practicum Seminar. The Post-Practicum Seminar is composed of examinations given at hospital laboratories following each rotation and a mock registry exam at MATC at the conclusion of the practicum. Prerequisites: all program courses including Pre-Practicum Seminar and 513-113 Practicum.

514-113 Practicum 10 credits
Students are assigned an 18-week externship (fourth semester) at an affiliating hospital laboratory and enrichment sites. Some of the affiliating laboratories are outside Madison. Therefore, students can anticipate being placed for the practicum in Baraboo, Fort Atkinson, Green Bay, Marshfield, Beloit or Neenah, as well as in Madison. Prerequisites: all program courses except Post-Practicum Seminar.

514-115 Developmental Principles 4 credits
This course reviews normal developmental sequences, emphasizing the relationship between sensorimotor, cognitive and psychosocial performance components and functional abilities. The developmental frame of reference is applied to pediatric and adult OT treatment contexts.

514-120 Occupational Therapy Process 4 credits
This course involves computing occupational therapy and nursing home resident activity services; exploring the occupational therapy assistant role at each stage of the OT process; emphasizing initial screening, evaluation and care planning; developing basic performance skills required in practice; and applying knowledge and skills in a resident activities field placement.

514-125 Community Practice 3 credits
This course focuses on ways to promote a client's functioning in the community with specific emphasis on work settings. Students review principles of prevention and normalization. Teaching skills are developed, including client needs assessment, resources research and program development and implementation. Approaches to working with persons who are developmentally disabled are stressed, including behavior management strategies. Prerequisite: 514-115 Developmental Principles.

514-130 Physical Rehabilitation Practice 5 credits
This course emphasizes common health conditions and functioning problems clients may experience in medical, surgical and physical rehabilitation situations, including related occupational therapy services. Coursework stresses skill development in client interaction and therapy intervention through micro-therapy simulations, and exposure to various prevention strategies and rehabilitative procedures such as work simplification, adaptive techniques, splinting and range-of-motion exercises as well as rationale for each. Instruction in cardiopulmonary resuscitation is also included. Prerequisites: 806-207 and 806-208 Anatomy and Physiology and 514-120 OT Process.

514-135 Mental Health Practice 4 credits
This course emphasizes common mental health conditions and functioning problems clients may experience as well as related occupational therapy services. Coursework stresses skill development in client interaction and therapy intervention through micro-therapy simulations and exposure to various rehabilitative procedures such as interviewing, assessing clients' behavior and performance skills, planning treatment, and developing various activity interventions. Prerequisites: 809-231 Introduction to Psychology or 809-197 Psychology of Human Relations, 809-233 Developmental Psychology, 514-110 Self/Group Dynamics, and 514-120 Occupational Therapy Process.

514-140 Health Care System 2 credits
This course explores various aspects, issues and trends in health care delivery and how these impact on the practice of occupational therapy. Concurrent enrollment in 514-105 Field Observation is recommended.

514-145 Recreation Practice 3 credits
This course introduces the theory of recreation; the importance of play and leisure activities to health; selection of activities appropriate to client developmental levels, interests, abilities and lifestyle; and orientation to community recreational resources. Skills in performing, as well as leading, group or individual recreational activities are developed. Prerequisites: completion of first and second semester OT courses is recommended.

514-146 Minor Media I 1 credit
This course provides students with experience and skill development in a variety of craft media. Students are introduced to teaching methods, techniques, and departmental maintenance duties.

514-149 Minor Media II 1 credit
This course provides students with experience and skill development in a variety of craft media. Teaching methods, activity analysis and activity adaptation are emphasized. Prerequisite: completion of 514-148 Minor Media I is recommended.

514-150 Media and Skills 4 credits
This course involves the refinement of skills in analyzing activities, selecting activities suitable to the needs and interests of clients, and leading or teaching activities and adapting them to client limitations. Activities such
as ceramics, woodworking, weaving, music, dramatics and computer use are included. Prerequisites: completion of first and second semester Occupational Therapy courses.

514-160 Mental Health Fieldwork 4 credits
514-165 Physical Rehabilitation Fieldwork 4 credits
514-175 OT Fieldwork-Specialty 3 credits

These courses include full-time fieldwork placements in physical rehabilitation, mental health and an additional specialty practice area in approved training centers throughout Wisconsin and adjoining states. Fieldwork education emphasizes integration of academics and practical experiences toward achieving entry-level OT assistant competencies and work habits. Prerequisites: satisfactory completion of first, second and third semester courses; demonstration of prerequisite work habits and personal performance skills.

514-170 Seminar on Practice and Management 1 credit

This colloquium provides review and feedback on academic and fieldwork experiences toward bridging the gap between training and on-job realities and exceptions to the rule. Unique fieldwork experiences are shared with classmates, and fundamentals of job-hunting are covered. An introduction to department management and employee or volunteer supervision is emphasized; since many graduates will head activities departments in nursing homes and community settings. Prerequisite: completion of or concurrent enrollment in fourth semester fieldwork courses.

514-180 Special Problems 1-3 credits

This elective course allows the student an opportunity to further explore a specialized interest regarding occupational therapy practice. An individualized learning contract is developed with an OT faculty advisor.

515. Respiratory Therapy

515-101 Respiratory Therapy Fundamentals 5 credits
This course discusses the basic principles and techniques of routine respiratory therapy procedures. The laboratory portion provides the opportunity to use the equipment and apply theories of operation. A 32-hour introductory clinical rotation provides an observational experience to in-hospital practice of respiratory care.

515-105 Introduction to Respiratory Therapy 2 credits
This course is designed to provide an introduction to the anatomy and physiology of the respiratory and cardiovascular systems. Programmed instruction in medical terminology is covered independently by the student.

515-115 Pulmonary Physiology 3 credits
This course is designed to give students the depth in understanding of physiology of respiration necessary for meaningful clinical experiences. The lecture portion includes all basic areas of respiratory physiology, while the laboratory portion of the course is primarily concerned with respiratory function testing techniques.

515-120 Respiratory Therapy Procedures I 5 credits
This is the first of a two-semester course designed to prepare students in mechanical ventilation, infection control, airway management and cardiopulmonary monitoring.

515-122 Respiratory Therapy Procedures II 5 credits
This is a continuation of 515-120 Respiratory Therapy Procedures I and is taken concurrently with 515-126 Respiratory Therapy Clinical Practice II. This course is designed to prepare the student in three primary areas of respiratory care—pediatrics, pulmonary function testing and pulmonary rehabilitation/home respiratory care. Emphasis is placed on learning how to manipulate and manage a variety of intensive care as well as diagnostic equipment. This course involves a variety of computer applications.

515-125 Respiratory Therapy Clinical Practice I 5 credits
This course involves supervised clinical experience in selected hospitals two days per week. The student is provided an opportunity to develop skills in routine therapy and the care of patients. A weekly, three-hour clinical discussion class is also included to review previously learned skills and develop understanding of chest x-ray and EKG interpretations.

515-126 Respiratory Therapy Clinical Practice II 5 credits
This course involves supervised clinical experience in selected hospitals two days per week. The student is provided an opportunity to develop respiratory care skills in caring for patients in intensive care units. A weekly three-hour clinical discussion class provides the student with a formal review of respiratory care practices in preparation for the self-assessment mock board exams given during this semester. Students also present patient care studies to their fellow classmates and instructors. This course also provides an introduction to the assessment of fluid and electrolyte balance and handle this balance impacts on patient management.

515-127 Respiratory Therapy Clinical Practice III 2 credits
This course involves supervised clinical experience in selected hospitals five days per week for six weeks. The student is provided an opportunity to further develop routine, as well as advanced, respiratory therapy skills in the care of adult and pediatric patients.

515-130 Pathophysiology 2 credits
This course is taught by a respiratory therapist faculty member and a group of local pulmonary specialists, and is designed to provide the student with an understanding of the diagnosis, pathophysiology, clinical manifestations, treatment and prognosis of a variety of pulmonary disorders or diseases.

515-131 Pharmacology 2 credits
This course is designed to give respiratory therapy students the knowledge needed to safely administer respiratory therapy drugs. It is also designed to give the student knowledge of important non-respiratory drugs which are commonly given to respiratory therapy patients.

516. Optometric Technician

516-101 Optometry I 2 credits
This course covers the history of optometry, relationships between optometry, ophthalmology and opticianry. The course also covers technical career, scope of services of the optometric, optometric terminology, introduction to optometric services, introduction to technical services, ethics and conduct, office and equipment care.

516-105 General Optics 3 credits
This course covers the properties of light, functional and psychological aspects of vision, basic visual optics, visual anomalies, perception, color vision, visual fields, eye movements, acuity, metric system, corrective lenses, and the ophthalmic prescription.

516-115 Ocular Anatomy and Physiology 2 credits
This course familiarizes the student with the form and function of the human eye. It includes discussion of pathological conditions and the use of pharmacological agents in the eye.

516-120 Ophthalmics 4 credits
This course covers use of the lensometer to inspect and measure lens powers, different types of lenses, base curves and prism, federal requirements, tints, sizing, lenses, and use of the lens gauge.

516-125 Optometry II 4 credits
This course covers frame definitions, parts and types of frames, measurements of frames and lenses, pigmentation of frames, inserting and removing lenses, introduction to dispensing of eyewear, and visual skills testing.

516-126 Optometry III 4 credits
This course involves study of practical experience in the instrumentation used in an optometric office, tonometry, keratometer, blood pressure, and visual fields/visual testing.

516-127 Optometry IV 3 credits
This course offers the student an in-depth study of eyewear selection and special problems when fitting eyewear, refractors, frame repair and progressive addition lenses.

516-130 Contact Lens 4 credits
This course gives the student in-depth exposure to the technical aspects of contact lens practice. Lecture and laboratory emphasize lens verification and modification and patient evaluation and education.
516-135 Special Procedures 3 credits
This course provides the student with experience and knowledge in areas of special vision care procedures: orthoptics, visual perceptual skills, low vision, ophthalmoscope, microbiology of the eye, slit lamp; goldmann tonometry, and treatment of eye diseases including instillation of drugs and eye patching. Patient instruction and assistance are emphasized in practical sessions.

516-140 Optometric Practice Management 3 credits
This course provides a study of front office management techniques including telephone and appointment book management, filing, recall systems, business letter writing, and computer management systems. The course also covers writing a job application letter and resume and interviewing techniques.

516-145 Preclinical 3 credits
This course prepares students for clinical affiliation by allowing them to perform complete vision screening on patients from the college. Class discussions are held analyzing the results of the screenings as well as the student's performance.

516-150 Clinical Experience 4 credits
Students participate 40 hours per week for eight weeks of assigned clinical experience in the office of an optometrist. They are expected to achieve specific educational objectives determined for this experience.

518 Food Service

518-301 Food Preparation Theory 2 credits
This course teaches the basic methods of food preparation, standards, principles and techniques used in foods for recipes used in quantity food production. Small quantity lab production of eggs and egg products, meats, fish, poultry, cheese products, small quantity baking and dessert preparation is practiced.

518-307 Introduction to Food Service 1 credit
This course is an orientation for students preparing for careers in food service. Specific areas to be covered are: safety and sanitation, setting up and serving a cafeteria line, work simplification, planning cafeteria menus, converting recipes, food costs, culinary language, and the use of microwave ovens.

518-310 Basic Food Production I 4 credits
This course introduces the student to quantity food preparation, techniques, principles and equipment. Preparation and service of soups, salads and sandwiches are included in this course, as well as culinary terminology, utilization of quantity measuring devices; and portion and quality control.

518-311 Basic Food Production II 3 credits
This is a continuation of 518-310 Basic Food Preparation I. The student is encouraged to exercise his/her creativity and produce more complex products, participate in menu planning and attractive food presentation, and develop appropriate public relations behavior in customer service.

518-312 Short Order Cooking 1 credit
This course introduces the student to equipment and methods used in short order cooking, i.e. deep fat frying, grilling and sandwich making. The student practices order taking and applying a systematic plan to ensure customer satisfaction.

518-313 Introductory Foods 1 credit
This course involves a study of the physical properties, the terminology and the principles involved in the preparation of eggs, milk, meat, poultry, fish, fruit, vegetables, soups, sauces, cereal products, batters and doughs, salad dressings, cheese, gelatin and beverages.

518-316 Food Preparation Laboratory I 9 credits
This course introduces quantity food preparation for cafeterias, short order facilities, bake shops and catering departments. Students are assigned on a rotation system to all stations within the production area. After students complete food preparation, they continue with food service for their assigned areas. Students start with basic food preparation and, as knowledge is acquired, they proceed to more advanced recipes, techniques and assignments.

518-317 Food Preparation Laboratory II 9 credits
Foods from the production area including meats, soups, salads, sandwiches, bakery products and beverages are served. This course emphasizes arrangement of food, portion control, disposition of leftover food from service line, proper storage, maintenance of equipment and sanitation. The college food service operation provides realistic hands-on experience for students. Short order preparation and service, cafeteria preparation and service, and food catering are part of daily food services offered to the faculty and students of the college.

518-318 Food Service Sanitation 1 credit
The principles of safety and sanitation are emphasized, stressing the importance of personal hygiene, proper food handling and storage, proper methods of handling and cleaning equipment, dining room sanitation, and regulations and standards governing food establishments.

518-334 Bakery Production I 1 credit
Fundamental baking techniques and principles are developed and applied to familiarize the student with bakery production for a food service operation. Some cake decorating is also included.

518-335 Bakery Production II 1 credit
This course is a continuation of 518-334, in which students apply the skills they are learning to a greater extent.

518-370 Employment Orientation 1 credit
Job seeking and job keeping skills are presented to the student through mock interviews, role playing, group discussion, writing the resume and practicing positive job attitudes. Personal goals and interests are defined by the student to help develop a positive self-concept.

518-382 Decorative Foods 1 credit
This is a laboratory course providing practice in producing decorative foods for commercial use. This class acts as a staging area for developmental culinary concepts. The goal is to nurture the creativity of the individual student chef, and provide a tangible reward of recognition among peers.

520 Human Service Associate

520-105 Introduction to Human Services 3 credits
This course introduces students to human services work by examining the scope, values and principles of the human service profession. Students are introduced to the typical roles and duties of human service workers and assess their own motivations, attitudes and interests.

520-106 Orientation to Human Services Populations 3 credits
This course introduces students to the social problems that contribute to the dysfunction of individuals, groups, families and communities. The course specifically addresses problems, needs, conditions and events that bring people to human service organizations.

520-110 Assessment and Program Planning 3 credits
This course focuses on the process of gathering functional assessment information and utilizing it to develop appropriate support systems for individuals with disabilities. Emphasis is placed on learning how to perform ecological assessments and plan functional individual habilitation/educational plans.

520-112 Introduction to Developmental Disabilities 3 credits
This course is an introduction to developmental disabilities, including mental retardation, chronic medical illness, traumatic brain injury, autism and multiple handicaps. Discussions focus on service delivery systems for people with disabilities and the ways in which graduates will participate in the service system. Descriptions of the effects of different types of developmental disabilities comprise a major portion of the course.

520-116 Teaching Strategies for Persons with Disabilities 3 credits
This course is a continuation of 520-110 Assessment and Program Planning, and as such, focuses on methods and strategies to implement individual habilitation/educational plans. Students learn a variety of teaching strategies, data collection methods and positive approaches to supporting persons with developmental disabilities in community settings.
52G-116 Group Work Skills 3 credits
Students learn the skills they need to organize, facilitate and participate in groups. Through reading and experiential exercises, students learn about group process, stages of group development, leadership styles, their own behavior in a group, and the types of groups used in human service work.

52G-117 Interviewing 3 credits
Students learn the principles and techniques needed to conduct informational and supportive interviews. Students practice interviewing skills during class.

52G-120 Community Service Agencies 3 credits
This course focuses on the characteristics and functions of human service organizations and the roles of human service workers in those organizations. Students learn the organizational skills of assessment, planning, budgeting, grant writing, evaluation and consulting.

52G-130 Social Change Skills 3 credits
Students are introduced to the principles and strategies of planned change and to the role of human service workers as community organizers. Students learn how consumers affected by a social problem can clearly define an issue, set a goal, and organize strategies and techniques to bring about social change.

52G-135 Issues in Alcohol and Drug Abuse 3 credits
This course is designed to provide the student with a basic understanding of the use and abuse of alcohol and other drugs. It 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, identify methods of substance abuse treatment, and introduce the student to local treatment services. This course is endorsed by the Wisconsin Alcoholism and Drug Counselor Certification Board, Inc.

52G-136 Counselling Alcoholics and Other Drug Abusers 3 credits
The purpose of this course is to train students in basic listening and responding skills, to familiarize students with the twelve core functions performed by AODA counselors (screening, intake, orientation, assessment, treatment planning, counseling, case management, crisis intervention, client education, referral, reports and recordkeeping, and consultation) and to provide a structured learning environment in which students can practice, demonstrate and develop skills in these core functions. This course is endorsed by the Wisconsin Alcoholism and Drug Counselor Certification Board, Inc.

52G-139 Human Service Agency Experience I 4 credits
Students develop skills as human service workers by working directly or indirectly with clients in community agencies 16 hours per week. They are closely supervised by an agency supervisor and a faculty member. The Human Services program staff makes the field placement assignments.

52G-140 Human Service Agency Experience II 5 credits
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. Prerequisite: 52G-139 Human Service Agency Experience I.

52G-151 AODA: Special Populations—Youth 1 credit
This course examines the special needs and concerns of adolescents with chemical problems. Class content includes an overview of alcohol and other drug abuse (AODA) in adolescents, current trends and research, family patterns and their relationship to adolescent AODA, an overview of the juvenile justice system, confidentiality guidelines, prevention of chemical problems, intervention, treatment and aftercare of adolescents.

52G-152 AODA: Special Populations—Women 1 credit
This course focuses on the specialized issues which both substance abusing women and AODA treatment personnel face. The course topics include the nature of the problem in Wisconsin, social attitudes and financial realities impacting on women, the effect of media message, sex role differentiation, life stages of women, health and sexuality concerns, rape, incest and domestic abuse, and a "how to get help" section.

52G-153 AODA: Special Populations—Older Adults 1 credit
This course focuses on prevention and intervention strategies for dealing with adjustment problems of aging in our society. It covers older adult demographics and lifestyles in relationship to alcohol and drugs. Methods of identifying problems, current trends, research and resources for intervention and treatment are also be addressed.

52G-154 AODA: Special Populations—Ethnic Minorities 1 credit
This course focuses on exploring and understanding cultural differences. It addresses cultural values and norms with emphasis on Black, Hispanic and Native American groups. This information is then related to culturally specific alcohol and drug abuse intervention and treatment strategies.

52G-155 AODA: Special Populations—Other Disabilities 1 credit
This course focuses on alcohol and drug abuse and several special populations. These populations are gays and lesbians, criminal justice clients and veterans of military service. The course examines each population and identifies special needs and characteristics and the relationship of societal norms, minority status and alcohol and drug use/abuse. From this information, participants develop specialized strategies for AODA prevention, intervention and treatment.

52G-156 AODA: Special Populations—Other Disabilities 1 credit
This course focuses on the relationship of alcohol and drug abuse and other disabilities. The course examines the special needs of developmentally disabled, mentally ill, hearing/vision impaired and physically impaired. After examining each population, effective strategies for AODA prevention and treatment are developed.

52G-157 Human Service Counselling Skills 3 credits
This course introduces students to the basic concepts of psychoanalytic theory, ego counseling, Rogers counseling, transactional analysis, rational-emotive therapy, and reality therapy. Students learn how counseling theories identify and define problems, explain personality development, and treat problem situations.

52G-160 Introduction to Gerontology 3 credits
This introduction to gerontology covers psychological, sociological and physical aspects of aging. The course addresses aging as a social issue and explores the problems confronting the elderly in American society.

52G-162 Administration in Gerontology 3 credits
This course is designed to teach the student ways to manage a facility or agency that serves older adults. The course addresses agency purposes, finances, record-keeping, administrative policies and facility management. Particular emphasis is placed on budgeting, financial resource development and the administrative tasks of staff and volunteer supervision.

52G-164 Case Management and Program Development for the Elderly 3 credits
This course introduces students to the basic principles of case management, including assessment and interview skills. Students also learn to develop programs for older adults, including identification of needs, budgeting and evaluation.

52G-188 Human Services Experience Conference I 3 credits
This course is a small group seminar designed as a companion, supportive course to the agency experience. It is designed to relate 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. Must be taken concurrently with 52G-139 Human Service Agency Experience I.

52G-189 Human Services Experience Conference II 3 credits
This course is a continuation of Human Service Agency Experience Conference I. Students continue to develop skills specific to their field of work placement and develop and complete a major project for their field Work Agency. Must be taken concurrently with 52G-141 Human Service Agency Experience II. Prerequisite: 52G-188 Human Service Agency Experience Conference I.
526-101 Radiography Introduction to Radiologic Technology 5 credits
This course is an introduction to the career field of radiologic technology, radiation protection, professional ethics, methods of patient care, medical-legal issues, prime exposure factors, and technical factors of film quality. The operation of energized x-ray units is demonstrated. Students perform experiments to emphasize how KVP, MA, Time and Source-image distance affect radiographic film quality. Students are also introduced to the clinical aspects of radiologic technology. They observe and assist radiologic technologists with various procedures. Prerequisite: acceptance and enrollment in program.

526-102 Radiographic Anatomy 3 credits
This course involves the inter-relationship of anatomical parts with emphasis on three-dimensional location. The location of anatomical parts by the use of external landmarks is stressed. Skeletons, phantoms and animal dissections are used to illustrate these landmarks and structure location. Radiographs may also be used. Gross physiology and organ size, shape and location are discussed and demonstrated on anatomical models and/or radiographs. Cross-sectional structure locations are identified on images (ultrasound/computer tomograms) if available. Prerequisite: acceptance and enrollment in program.

526-103 Radiographic Physics 2 credits
This course defines, discusses and demonstrates the use of fundamental and derived units and reviews basic math, mechanics, subdivision of matter, mass-energy equivalence, magnetism, electricity, electromagnetism, generators and motors, transformers, rectifiers, and voltage-current controlling devices. Electromagnetic spectrum energies are discussed.

526-111 Radiographic Procedures I 5 credits
Fundamentals of radiographic positioning and the terminology used to describe radiographic positioning are studied. Standard projections are discussed, demonstrated, practiced on fellow students (no exposures), performed on phantoms, and then on patients with appropriate supervision present. Immediate procedure corrections and film critiques are done on each projection. Body areas covered are the chest, abdomen and extremities. Prerequisites: completion or concurrent enrollment with 526-101 Introduction to Radiologic Technology, 806-218 Anatomy, and 509-180 Medical Terminology.

526-112 Radiographic Procedures II 5 credits
Fundamentals of radiographic positioning and the terminology used to describe radiographic positioning are studied. Standard projections are discussed, demonstrated, practiced on fellow students (no exposures), performed on phantoms, and then on patients with appropriate supervision present. Immediate procedure corrections and film critiques are done on each projection. Body areas covered are: urinary and gastro-intestinal tract, skull, spine and mammography. Prerequisites: 526-101 Introduction to Radiologic Technology, 526-102 Radiographic Anatomy, 526-111 Radiographic Procedures I, and 509-180 Medical Terminology.

526-121 Applied Clinical Radiography I 2 credits
Students perform standard radiographic examination of patients of chest, abdomen, urinary and gastro-intestinal tract, extremities, skull, mammography and shoulder and pelvic girdle with appropriate supervision. Students assist technologist with the exams studied in Radiographic Techniques III plus special positions of examinations for above standard tests. Timely film critiques, competency documentation forms and professional assessment instruments are used for evaluation. Major and minor affiliates are used. Prerequisite: 526-112 Radiographic Procedures II, 526-131 Radiographic Techniques I, and 526-141 Radiologic Science.

526-122 Applied Clinical Radiography II 2 credits
This is a continuation of Applied Clinical Radiography I. Students may perform all standard projections of chest, abdomen, urinary and gastro-intestinal tract, extremities, skull, mammography and shoulder and pelvic girdles with limited supervision as clinical competency indicates. Students perform special examinations and specialized projection under qualified supervision. Students may be rotated to various shifts to ensure optimal clinical experiences as clinical competency indicates. Timely film critiques, competency documentation forms and professional assessment instruments are used for evaluation. Prerequisites: 526-121 Applied Clinical Radiography I, 526-111 and 526-112 Radiographic Procedures I and II, 526-103 Radiographic Physics, 526-141 Radiologic Science, and 526-131 and 526-132 Radiographic Techniques I and II.

526-123 Applied Clinical Radiography III 1 credit
This course is a continuation of examination performances in all radiographic imaging areas with limited supervision as clinical competency indicates. Assignments to various shifts may be made to provide an increased examination base as needed to gain clinical competency. Timely film critiques, competency documentation forms and professional assessment instruments are used for evaluation. Prerequisite: 526-122 Applied Clinical Radiography II.

526-124 Applied Clinical Radiography IV 1 credit
This course is a continuation of examination performances in all radiographic imaging areas with limited supervision as clinical competency indicates. Assignments to various shifts may be made to provide an increased examination base as needed to gain clinical competency as needed. Timely film critiques, competency documentation forms and professional assessment instruments are used for evaluation. Prerequisite: 526-123 Applied Clinical Radiography III.

526-131 Radiographic Techniques I 5 credits
This course involves a discussion of the characteristics of radiographic film, construction and design of radiographic dark rooms, and manual and automatic processing techniques, including the processing chemistry needed for each. Also described are radiographic principles with emphasis on radiation protection and radiographic film quality. Methods of reducing patient exposure to ionizing radiation through the selection of proper exposure factors and the use of accessory devices are demonstrated. Prerequisites: completion of 526-101 Introduction to Radiologic Technology and 526-112 Radiographic Procedures II; completion of or concurrent enrollment in 526-101 Radiographic Anatomy, 526-111 and 526-112 Radiographic Procedures I and II, and 526-141 Radiologic Science.

526-132 Radiographic Techniques II 3 credits
A continuation of 526-131 Radiographic Techniques I, this course concentrates on methods of special radiographic techniques for stereoradiography, scanography, tomography, pelvimeter methods, and image intensification. Theories and principles are discussed, demonstrated and practiced. Prerequisites: 526-131 Radiographic Techniques I and 526-141 Radiologic Science.

526-141 Radiologic Science 3 credits
This course features a discussion of x-ray properties, including x-ray production, interaction of x-rays with matter, other x-ray properties, basic single- and three-phase x-ray circuits, construction of x-ray tubes and methods of radiation, detection and measurements. Students perform lab experiments to demonstrate affect of KVP, MAS, distance and collimation upon patient exposure. Radiation dosimetry, biology, patient and personnel protection and health physics are studied. X-ray spectra, HVL, depth dose, structural shielding and radiation codes are discussed. Inquiries for completion of 526-103 Radiographic Physics, 526-101 Introduction to Radiologic Technology and 526-131 Radiographic Techniques I; and completion of or concurrent enrollment in 526-111 Radiographic Procedures I.

526-150 Special Procedures 4 credits
Students are introduced to the specialized and higher technical procedures in radiography, CT scanners and digital subtraction angiography equipment are discussed, demonstrated and utilized as the technologist permits. The medical indications and anatomy demonstrated for each examination are surveyed in an integrated approach to include a study of some medical and surgical diseases. Students assist with CT imaging and interventional angiography studies under close supervision. Emphasis is placed on the theory of quality assurance in an x-ray environment. After a detailed study of test theory, students actually perform a question-and-answer survey of a radiology department. These tests are performed under indirect supervision after training in the use of the test tools and then the results are intensively reviewed with reports submitted to the department supervisor for corrective action, if needed. Prerequisites: completion of 526-121 Applied Clinical I,
526-153 TO 536-326 COURSES


526-153 Introduction to Specialized Radiology 1 credit
Students are given the opportunity to rotate or tour the radiology subspecialties of MRI, radiotherapy, nuclear medicine and ultrasound. MRI and radiation therapy equipment are discussed, demonstrated (if applicable), toured (if appropriate), and utilized as the technologist permits. This course includes assisting in nuclear medicine and ultrasound imaging at a basic level. This course serves to develop interest in those areas in departments and clinics where a level of cross training is acceptable. This training is not sufficient for certification in these imaging modalities. Prerequisite: 526-150 Special Procedures.

526-161 Practicum I 1 credit
This course is a continuation of radiographic exam performance in all radiographic imaging areas with decreasing direct supervision by a qualified technologist as the student improves skills and clinical competency increases. Students perform standard radiographic examinations of patients of the following body areas: chest, abdomen, extremities, shoulder and pelvic girdles. Students also perform any special views and positions of exams of the listed body areas. Film critiques are held in conjunction with the clinical assignments on an individual basis and as a group if necessary. Assignments to non-traditional shifts are made to increase and diversify the patient exam base. This course is normally offered in the first fall semester. Prerequisites: completion of or concurrent enrollment in 526-101 Introduction to Radiologic Technology, 526-102 Radiographic Anatomy, 526-111 Radiographic Procedures I, and 504-180 Medical Terminology.

526-162 Practicum II 1 credit
This course is a continuation of radiographic exam performance in all radiographic imaging areas with decreasing direct supervision by a qualified technologist as the student improves skills and clinical competency increases. Students perform standard radiographic examinations of patients of the following body areas: chest, abdomen, extremities, shoulder and pelvic girdles, mammography and skull. Students also perform any special views and positions of exams of the listed body areas. Film critiques are held in conjunction with the clinical assignments on an individual basis and as a group if necessary. Assignments to non-traditional shifts are made to increase and diversify the patient exam base. This course is normally offered in the first spring semester. Prerequisite: 526-161 Practicum I and all its prerequisites.

526-163 Practicum III 1 credit
This course is a continuation of radiographic exam performance in all radiographic imaging areas with decreasing direct supervision by a qualified technologist as the student improves skills and clinical competency increases. Students perform standard radiographic examinations of patients of the following body areas: chest, abdomen, extremities, shoulder and pelvic girdles, mammography and skull. Students also perform any special views and positions of exams of the listed body areas. Film critiques are held in conjunction with the clinical assignments on an individual basis and as a group if necessary. Assignments to non-traditional shifts are made to increase and diversify the patient exam base. This course is normally offered in the second spring semester. Prerequisite: 526-162 Practicum I and all its prerequisites.

531 Emergency Medical Services

531-330 EMT-Basic 4 credits
This course follows the revised 1984 EMT-Basic course (US DOT). Hospital emergency room experience is included as well as (if approved) ride-along experience with Madison Fire paramedics or a Madison area EMT-Basic ambulance. Wisconsin Ambulance Attendant Licensure Exam is provided.

531-332 EMS Vehicle Operator 1 credit
This course is the US DOT Emergency Vehicle Operator course for ambulance operations. It includes defensive driving, range driving, driver evaluations, and vehicle maintenance/troubleshooting.

531-334 EMS Rescue Techniques 1 credit
This course reviews extrication techniques for auto accidents and expands extrication and rescue techniques to include agricultural hazards and industrial problems, as well as water rescue. Hands-on experience is provided in field settings.

531-335 EMS Systems Management 1 credit
This course includes radio communications, medical records and reports, introduction to systems management, training, recordkeeping, personnel management, supply/inventory control, and other daily administrative responsibilities. Experience is provided through field trips to dispatcher centers and ambulance service manager(s).

531-338 EMS Personal Communications 1 credit
This course includes the dynamics of communication, principles of speech, stress management, and patient interview techniques.

536 Pharmacy Technician

536-310 Pharmaceutical Calculations 2 credits
This course reviews basic math, including addition, subtraction, multiplication and division of whole numbers. The course covers mathematical systems used by health professionals, emphasizing the metric, apothecary, and household measures, and approximate equivalents. Students gain an understanding of drug calculations, including percentage determinations.

536-311 Pharmacy Communications 2 credits
Communication theory and practice are studied with special attention to pharmacy situations. Emphasis is placed on active listening, rapport with patients, patient concerns, sales techniques, business communication, and group communication and problem solving.

536-312 Pharmacy Operations I 2 credits
A definition of the pharmacy technician role and responsibilities are presented, as well as a study of general operations of pharmacies at different settings. Emphasis is placed on computer usage, purchase requisitioning and order preparation, charges and billing, filing procedures, patient profile preparation, reference material, cash register operations, physician's orders, controlled substances, security and telephone procedures.

536-313 Pharmacy Operations II 2 credits
This course is a continuation of Pharmacy Operations I; it emphasizes over-the-counter drugs, glucose monitoring devices, eyewashes, IV pumps and durable medical equipment, drug distribution systems, and inpatient/outpatient pharmacy services.

536-315 Pharmacy Regulation and Inventory Control 2 credits
This course deals with the history, development, and current regulations and laws of handling different types of drugs. It covers purchasing, storing, dispensing and recordkeeping, as well as drug abuse.

536-322 Introduction to Drug Classification and Pharmacology 2 credits
Pharmaceutical terminology is presented, including generic and brand names of drugs by pharmacologic classification. A survey of actions, reactions and routes of administrations of major pharmacologic groups is presented.

536-324 Pharmacy Unit Dose 2 credits
This is a laboratory study of the unit dose (individually packaged medications) drug distribution system. Emphasis is placed on setting unit doses while concentrating on accuracy and speed. Students gain an understanding of the physician's orders sheets, patient medication profiles, deliver and/or exchange of medications and filling of unit doses.

536-326 Pharmacy Sterile Products 3 credits
This is a laboratory study of the aseptic compounding techniques for parental administration. Emphasis is placed on the equipment and aseptic techniques used in the preparation of parenteral admixtures (injectable solutions), and infection control.
536-330 Pharmacy Bulk Compounding 2 credits
This is a study of compounding techniques of solutions, powders and ointments. Emphasis is placed on safety, cleaning, and housekeeping; packaging; batch records; labeling; use and maintenance of compounding equipment; weighing and measuring; and compounding of products of high quality.

536-338 Pharmacy Clinical Affiliation I 1 credit
This course provides on-the-job experience and training to expose the student to different pharmacy settings. Students are assigned to a cooperating affiliation site and are under the supervision of a registered pharmacist.

536-339 Pharmacy Clinical Affiliation II 4 credits
This course continues Pharmacy Clinical Affiliation I. Emphasis is placed on practicing skills and gaining experience in all aspects of drug preparation and distribution utilized by the participating affiliation site.

536-346 Pharmacy Seminar 1 credit
Instruction consists of students sharing and presenting their experiences to their fellow students, as well as an examination of job placement techniques.

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602.157 Technical Brake/Steering Systems 3 credits
The principles of drum and disc brake designs, inspection and diagnosis are studied. All designs of steering systems are included. Lab experiences include inspecting, troubleshooting and the repair and replacement of defective or worn parts of the complete brake and steering system. The use of correct procedure and tools is stressed. Prerequisite: completion of or concurrent enrollment in 604-141 Industrial Mathematics I.

602.158 Service Management 2 credits
The principles of various types of business organizations are examined and applied to automotive wholesale and retail businesses, ultimately focusing on the automobile service department. Service department operation is covered in detail and depth from large to small organizations. The conventional line method of management is stressed. Employment possibilities and job interviewing techniques are discussed. Prerequisite: 602-153 Power Transmission Systems.

602.162 Accessories 2 credits
This course explores equipment supplied by both major manufacturers of automobiles and aftermarket 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.

602.163 Vehicle Suspension and Alignment 3 credits
Principles of suspension designs, wheel alignment angles, headlight alignment, inspection procedures, parts replacement, steering gears, shock absorbers and sway bars, frame designs, tire design and operation, and wheel balancing are studied. On-the-job experiences include inspecting and correcting suspension angles, parts replacement, adjusting steering gears, aligning headlights, and balancing wheels. Four-wheel alignment is included. Prerequisite: completion of or concurrent enrollment in 601-141 Industrial Mathematics I.

602.166 Driveability and Fuel Systems 4 credits
Diagnosis and repair of electrical and fuel systems are studied. The use of computerized test equipment to properly tune a vehicle for good driveability is stressed. Carburetor systems are examined in detail with an introduction to computerized engine controls. Prerequisite: completion of or concurrent enrollment in 601-141 Industrial Mathematics I.

602.175 Special Problems 3 credits
The student pursues a course of instruction based on individual needs for advanced technical knowledge or skill in the automotive service area. The area of concentration is determined by the student and advisor. Prerequisite: fourth semester enrollment and permission of the instructor and division dean/chairperson.

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605.109 Alternating and Direct Current Fundamentals 3 credits
The basic principles of AC and DC circuits are used to study the operation of electric arc welding equipment. Emphasis is placed on the troubleshooting of commercial arc welding equipment. The student participates in classroom and laboratory exercises on the basic concepts and laws of alternating and direct current circuits. Ohm's Law, and half-, full-wave and bridge rectifier currents are studied. The effects of high and low frequencies are also examined in relation to welding practice.

605.112 DC Fundamentals 3 credits
This course studies basic DC concepts and theories, including Ohm's Law, Kirchoff's voltage and current laws, and thevenin's, Norton's, miller's and maximum transfer of power theories. RC time constant circuits and DC voltage measurements introduce the use of the oscilloscope and the square wave generator. Proper techniques with digital multimeters for the measurement of current, voltage and resistance are emphasized. Corequisite: concurrent enrollment in 604-161 Electronics Mathematics I.
605-113 Solid State Devices I 
2 credits
Students are oriented and introduced to library resources, lab write-up procedures and soldering. Lab activity introduces solid state devices, including diodes and transistors. Prerequisite: completion of or concurrent enrollment in 605-112 DC Fundamentals.

605-114 AC Fundamentals 
3 credits
This course emphasizes the study of AC voltages, current and power by use of phasors and polar and rectangular coordinate techniques, including multi-phase circuits. The uses of resistors, capacitors, inductors, and transformers in AC circuits are included. Use of the oscilloscope is emphasized in measuring phase angles, as well as the evaluation of resonant conditions and high and low pass filters by use of dual trace and time base functions. Prerequisites: 605-112 DC Fundamentals and 804-161 Mathematics I.

605-115 Analog Solid State Devices—AC Analysis 
2 credits
AC principles are applied to rectifier and zener diodes. Loading effects upon terminal voltage and ripple components are observed in capacitor-filtered, half-wave, full-wave and bridge rectifier circuits. Voltage regulators are introduced. The common source FET configuration is validated in the laboratory and procedures for the upper and lower half-power points, bandwidth, voltage and current gain, signal phase inversion, and input and output impedance are studied. Norton and Thévenin theorems are applied to amplifiers. FET constant current source is covered along with advanced soldering techniques. Prerequisite: 605-113 Solid State Devices I.

605-116 Analog Solid State Circuits 
5 credits
This course reviews small signal amplifiers and studies the basics of various types of transistors, multistage amplifiers, power amplifiers, differential amplifiers, integrated circuits, feedback circuits, oscillators, and regulated power supplies. Prerequisites: 605-114 AC Fundamentals and 605-115 Analog Solid State Devices—AC Analysis.

605-118 Digital Circuit Fundamentals 
2 credits
Basic digital fundamentals are applied to number systems, Boolean logic and Karnaugh mapping principles. Gate theory is validated in lab applications. Corequisite: concurrent enrollment in 605-112 DC Fundamentals.

605-119 Digital Circuits 
2 credits
Basic digital fundamentals are continued with shift registers, counters, tri-state logic devices, multivibrators, half and full adders, timers and comparators. A logic probe project is included. Prerequisite: 605-118 Digital Circuit Fundamentals.

605-130 Instruments—Industrial Devices 
3 credits
The use of test instruments (oscilloscopes, logic analyzer, advanced spectrum analyzer, etc.) and automatic test systems (using the IEEE H88 Bus) is studied. Devices investigated include sensors, final actuators (including motors), thyristors and operational amplifiers. Prerequisite: 605-114 AC Fundamentals.

605-140 Electronic Calculus and Circuit Analysis 
3 credits
The relationship of charge to current, the sources of induced voltage and a comparison of average and instantaneous current, voltage and power are covered. Filter and attenuation networks, transmission line losses, audio principles and antenna distribution factors are verified. Phasors, logarithmic and exponential functions introduce topics beyond Ohm’s Law and basic theorems. A technical language of communication is developed in the course. Principles are demonstrated or held in lab settings. Prerequisite: completion of or concurrent enrollment in 605-116 Analog Solid State Circuits.

605-142 Analog Systems and Measurement 
3 credits
Analog signal processing as well as principles and applications of test equipment are covered. Emphasis is placed on conceptual understanding of analog systems as well as hands-on experience with measuring instruments and simple analog systems. The use of instrument manuals is stressed. Prerequisite: 605-126 Industrial Electronics.

605-143 Industrial Control Systems 
3 credits
Industrial controllers and applied systems are studied. Specific control systems focus on programmable controllers, motor speed, control systems, feedback systems, servo-mechanisms, industrial robotics, closed loop industrial systems and on-line microcomputer controls. Prerequisite: 605-115 Analog Solid State Devices—AC Analysis.

605-150 Electronic Data Transmission 
3 credits
A study of selected circuits and systems basic to the electronic telecommunications industry is made. The basic telecommunication systems investigated are the electronic transmission, receiving, encoding, decoding, storing and retrieving of information. Examples of some of the specific circuits investigated that make up parts of these systems are oscillators, filters, AM modulation, FM modulation, PLL, time and frequency division multiplexing, pulse width modulation, SSB and heterodyning. Prerequisites: 605-116 Advanced Analog Solid State Circuits and 605-176 Introduction to Digital Systems.

605-151 Troubleshooting and Maintenance 
3 credits
Students acquire hands-on experience at using circuit diagrams and test equipment to locate problems in malfunctioning equipment. The art of speedy, logical diagnosis using the proper mix of theory and test instruments is emphasized. A variety of modern electronic equipment in varying states of improper operation are examined and repaired. Extensive experience is gained in using and interpreting component specifications from spec sheets, data books and catalogs. Prerequisite: fourth semester standing.

605-152 Microprocessors and Digital Systems 
3 credits
Students study microprocessors and digital control systems. Topics include microprocessors, interrupts, DMA, parallel and serial I/O, peripherals and software applications. Laboratory exercises and a hardware/software project provide practical experience with digital systems. Prerequisites: 605-176 Introduction to Digital Systems and 605-173 Electronic Computers and Assembly Language.

605-173 Electronic Computers and Assembly Language 
3 credits
The fundamentals of electronic computer systems are examined. The basic structure and function of computer hardware is covered from a system level perspective. Students are introduced to DOS usage. The ability to use assembly language to write machine language programs is developed. Prerequisite: 605-119 Digital Circuits.

605-174 Introduction to C Language 
3 credits
This course is an introduction to the basics of C language programming using the Turbo C compiler.

605-176 Introduction to Digital Systems 
3 credits
This course studies the electronic aspects of digital systems. Topics include a review of basic digital components, logic families, printed circuit fabrication, memory components and digital to analog and analog to digital conversion. Laboratory exercises and a project provide practical experience with digital systems. Prerequisite: 605-113 Digital Circuit Fundamentals and 605-119 Digital Circuits.

605-190 Special Problems—Electronics 
2-4 credits
Students may select a project or projects following previous or current courses of study which strengthen areas of electronic interest. Projects must be in keeping with time allowed. Projects must be in concert with and under the supervision of the instructor for credit.

605-192 Introduction to Electronics 
1 credit
This course introduces the electronic industry and the electronic way of thinking. Job opportunities in electronics, basic computer use, soldering and wiring techniques, and specialized electronic graphs are covered.
606-100 Introduction to Mechanical Graphics 3 credits
This course is an introduction to the basic theory of engineering drawings, their content and the instruments and skills necessary to make acceptable drawings. Topics include geometric constructions, lettering and the theory and practice of orthographic projection.

606-102 Intermediate Mechanical Graphics 3 credits
Student are given further opportunity to apply basic skills and theory of engineering graphics. Major topics include section views, auxiliary views and dimensioning practices. Limited introduction to the computer as a design tool is included using the IBM/PC. Prerequisite: 606-100 Introduction to Mechanical Graphics or consent of the instructor.

606-104 Advanced Mechanical Graphics 3 credits
Major topics include threads and fasteners, springs, gears and cams, and standard dimensioning practices. Students are introduced to the basic use of geometric dimensioning and tolerancing. Extensive use is made of standard tables, charts and handbooks for information regarding standard materials. Tolerances, limits and fits are introduced as design tools. Additional use of computers to make two-dimensional drawings is emphasized. Prerequisite: 606-102 Intermediate Mechanical Graphics.

606-105 Materials Processing 2 credits
This course is an introduction and orientation to the material applications field. Related technical information is supported by experiences on the operations in machining electrical, sheet metal and welding fabrication of materials. Prerequisite: 606-150 Manufacturing Processes.

606-106 Applied Mechanical Graphics 3 credits
This purpose of this final course in the study of drafting is to apply the theory aspects of the first three courses. Emphasis is on the preparation of a complete detailed working drawing Opportunity to develop additional skills in the use of CADD for two- and three-dimensional drawings is provided. Prerequisite: 606-104 Advanced Mechanical Graphics.

606-110 Descriptive Geometry 3 credits
The fundamental theory of orthographic projection is studied in detail using the concept of points, lines and planes. The course applies the theoretical aspects to practical problems involving such things as bearing, slope, true length, strike, dip and intersections. Problems are limited to flat and curved surfaces-so warped surfaces or compound curvatures are studied. All problems are solved graphically. Prerequisite: 606-102 Intermediate Mechanical Graphics.

606-112 Tool Design 2 credits
The fundamentals of tool design are presented to acquaint students with the language and methods used in designing jigs and fixtures. Through problems and actual designing of jigs and fixtures, students are given the opportunity to complete tool design drawings and to further develop drafting skills. Prerequisites: 606-104 Advanced Mechanical Graphics and 606-155 Statics and Mechanics.

606-116 Machine Design 3 credits
This course is designed to apply the basic principles of mechanics and strength of materials to the design of machine parts. Typical elements studied include bolts, screws, shafts, clutches, belts, chains, gears and bearings. Prerequisite: 606-170 Strength of Materials.

606-120 Introduction to Computer-Aided Drafting (MDT) 2 credits
Students are made aware of the basic capabilities of two-dimensional software used in the computer-aided drafting (CAD) environment as it applies to mechanical design. Major emphasis is placed on learning the basic commands and input required to make CAD drawings. Emphasis is placed on exploring and learning the capabilities of the CAD system, not necessarily becoming a proficient operator of the system (this could come with direct usage of the equipment and hands-on lab time). Prerequisite: 606-100 Introduction to Mechanical Graphics, equivalent work experience, or consent of instructor.
607-133 Civil Engineering Technology

607-133 Civil Engineering Estimating 2 credits
Estimating for general civil engineering work is stressed. Detailed estimates as prepared by contractors for bidding purposes, general estimates as prepared by engineers, and approximate estimates are discussed. Highways, water and sewer lines, bridges, culverts, streets and general construction grading are covered. Prerequisite: fourth semester standing.

607-140 Strength of Materials 3 credits
Basic principles of the strength of engineering materials are presented. Topics include simple stress, properties of materials, welded and riveted joints, beams, combined stresses, columns and reinforced concrete. Prerequisite: 607-178 Mechanics.

607-147 Basic Civil Drafting 3 credits
This course introduces students to the basic skills of drafting, such as line work, lettering, and the use of basic drafting tools. The problems are related to those that may occur in the work of a civil engineering technician. Orthographic projection, bearing, true length, inclination, contours, cross-section, etc., are covered.

607-154 Surveying I (Architecture) 3 credits
The fundamentals of surveying as they apply to architecture are studied, including the use of surveying equipment and instruments. Types of surveys covered include boundary, topographic and construction. Prerequisite: completion of or concurrent enrollment in 804-151 Technical Mathematics I.

607-155 Introduction to Surveying 4 credits
This course is designed as an introduction to the fundamental principles of surveying. Methods of measuring distances are discussed along with the corrections which should be applied to rectify errors. Instruction and practice is provided in the use of the transit and level for making field measurements of angles and elevations. Azimuths, bearings and angles are studied and the principles of traverse computations are presented. Calculations for coordinates and areas are also included. Prerequisite: completion of or concurrent enrollment in 804-151 Technical Mathematics I.

607-156 Route Surveying 4 credits
The principles of route surveying for public works systems are covered. The course includes reconnaissance and preliminary surveys as well as stakeout surveys with computation and fieldwork. Calculations for layout of vertical and horizontal curves and the drafting of highway plans, profiles and cross sections are included. Prerequisite: 804-151 Technical Mathematics.

607-158 Advanced Surveying 3 credits
The principles of advanced surveying are presented. Subjects include triangulation, state plane coordinates, astronomical observations, topographic mapping, and use of the total station and electronic distance measuring (EDM) system. Prerequisite: 607-156 Route Surveying.

607-168 Legal Elements of Land Surveying 3 credits
Legal principles of how surveyors locate land boundaries from the written words of a deed are covered. These principles are drawn up from the many precedents set by the courts.

607-171 Structural Detailing 3 credits
This course presents the principles involved in producing detailed drawings of structures including concrete, steel and pre-stressed concrete members. Prerequisite: 614-125 Introduction to CAD-2D.

607-175 Boundary Location 3 credits
The principles and practices of boundary control are presented in this course. Laws and customs relating to boundary, writing property descriptions and field practice in locating property are covered.

607-176 Water Supply and Sewerage 2 credits
This course gives an understanding of the principles involved in the design of water supply and sewerage systems. Topics include the basic concepts of hydraulics and hydrology, water resources and distribution systems, and sewage treatment and collection systems. Prerequisite: third semester standing.

607-177 Legal Elements of Engineering Technology 3 credits
Legal principles involved in a civil technician's work are presented, including contract law, construction contract specifications and ethics.

607-178 Mechanics 3 credits
Principles of engineering mechanics are presented, including parallel forces, concurrent forces, non-concurrent forces, non-co-planer forces, friction center of gravity and centroids. Prerequisites: 804-151 Technical Mathematics I and 804-152 Technical Mathematics II.

607-181 Field Inspection and Materials Testing 3 credits
The fundamentals of the inspection of construction projects are covered. Major divisions of the course include inspection of curviwork, pavements, pipelines, and steel and concrete structures in order to determine compliance with the project drawings and specifications. The materials testing phase of this course includes field testing of soils to determine their engineering properties and lab testing of soils, concrete, aggregates and metals. Prerequisites: 804-151 Technical Mathematics I and 805-153 Communication Skills I.

607-190 Special Problems—Civil 2 credits
This course provides opportunities for advanced study, both group and individual, in the processes and recording of project development from inception to completion. The student selects a topic (problem), collects data through research, tabulates the data, draws conclusions and makes recommendations. Prerequisite: fourth semester standing.

607-193 Job Orientation 3 credits
The purpose of this course is to help the graduating student assemble materials and information to ease the tension of the interview and enable the graduate to make a positive impression on the interviewer. To accomplish this, students review their academic records, assemble a portfolio, prepare a resume, write a cover letter and make other preparations for the interview. In addition, some of the responsibilities and challenges which accompany a full-time job as an engineering technician are discussed, such as work attitude, absences, hourly versus salaried positions and personal financial management. Prerequisite: fourth semester standing.

614-105 Fundamentals of Building Construction 3 credits
This course studies fundamental concepts of good construction and their application to new construction, existing construction and remodeling.

614-111 Architectural Theory and Drafting I 3 credits
Engineering drawing and the theory of drafting, along with good lettering and line quality are emphasized. Lettering, use of drafting tools, line work, orthographic projection, axonometric drawings, land measurement, vector analysis, geometric shapes, perspective drawings, shading and reflections are covered in the first semester. Prerequisite: concurrent enrollment in 804-151 Technical Mathematics I.

614-112 Architectural Theory and Drafting II 3 credits
Working in codes and specifications, students develop a complete set of working drawings for a small commercial building or residence. Areas of planning are: excavation and backfill, foundations, floor plans, windows and doors, structural components, exterior characteristics, electrical wiring, stairways and fireplaces, joint framing and rafter framing, interior built-ins, plot plans, heat loss and heating, plumbing systems, and pictorial projections. Prerequisite: 614-111 Architectural Theory and Drafting I.
614-113 Architectural Theory and Drafting III 3 credits
Students are taught the basic use of computer-aided drafting and design (CADD) systems. They also acquire introductory-level skills in 2D and 3D drafting as it applies to CADD systems. Prerequisite: 614-112 Architectural Theory and Drafting II.

614-114 Architectural Theory and Drafting IV 3 credits
Advanced engineering design and drafting are studied. Advanced CADD applications are provided. Prerequisite: 614-113 Architectural Theory and Drafting III.

614-118 Architectural Rendering 2 credits
Application of perspective principles in architectural presentation is made. Drawings and renderings are made for presentation. Emphasis is on: pencil techniques, wash and tempera colors. Prerequisite: 614-111 Architectural Theory and Drafting I.

614-121 Construction Materials 3 credits
This building construction course emphasizes materials used in construction and their manufacture and application in various construction systems from wood frame to masonry, steel and pre-cast concrete. Basic properties of materials are discussed as well as how, when and where to use them. Prerequisite: concurrent enrollment in 804-151 Technical Mathematics I.

614-123 Electrical and Mechanical 4 credits
Wiring principles for electrical installation as applied to architectural design, as well as state, city and local utility codes, are examined. The design and installation of complete air conditioning systems— including heating, cooling, humidification and air cleaning—are studied. Private and public water and sewerage systems are discussed and designed. New trends in mechanical systems are researched. Construction sequence, pre-built home design, and construction trade duties are covered. Prerequisite: 614-112 Architectural Theory and Drafting II.

614-124 Industrial Computer Applications 1 credit
Engineering technicians entering the workforce are expected to be able to use microcomputers for basic engineering applications. To promote such facility and to provide students with a tool that will be useful throughout the program, this course provides training in the PC disk operating system (DOS), spreadsheet use and word processing.

614-125 Computer-Aided Drafting—2D (Civil) 2 credits
Introduction to CAD Civil Engineering is designed to make students aware of the basic capabilities of two-dimensional software used in a computer-aided drafting (CAD) environment. Major emphasis is placed on learning the basic commands and input required to generate CAD drawings. Emphasis is placed on exploring and learning the capabilities of the CAD system and not necessarily on becoming a proficient operator (this could come with direct usage of the equipment and hands-on lab time). A significant portion of the course focuses on using CAD in the civil engineering application. Prerequisite: one semester of drafting, equivalent work experience or consent of instructor.

614-125 Computer Aided Drafting (2D CAD) (Mech) 2 credits
The basic capabilities of two-dimensional software used in a computer-aided drafting (CAD) environment are taught. Computer equipment and industry usage are introduced. Major emphasis is placed on learning the basic commands and input required to make a 2D drawing and how to then, in turn, manipulate this information to obtain various three-dimensional projects. Emphasis is on learning the basic software and not necessarily becoming a proficient operator (this could come with direct usage of the equipment and hands-on lab time). Prerequisite: 614-111 Architectural Theory and Drafting I.

614-126 Computer-Aided Drafting (3D CAD) 2 credits
This course is designed to make the student aware of the basic capabilities of three-dimensional software used in computer-aided drafting environments. Major emphasis is placed on learning the necessary commands and input required to make a 3D drawing and how to then, in turn, manipulate this information to obtain various three-dimensional projects. Emphasis is on learning the basic software and not necessarily becoming a proficient operator of the system. A brief introduction to point software and its applications is also provided. Prerequisite: 614-125 Computer-Aided Drafting—2D.

614-132 Building Estimating 2 credits
Problems and responsibilities of the estimator are studied, including plans, specifications and published construction cost data. Emphasis is on understanding estimating techniques and methods of preparing estimates and take-offs. Prerequisite: 804-151 Technical Mathematics I.

614-135 Building Codes 2 credits
Forms of contracts including specifications are discussed and a study is made of them for such construction materials as lumber, brick, steel and glass. Primary emphasis is given to the study of local zoning regulations, building codes, the State Uniform Dwelling Code, and other code documents. Prerequisite: 614-111 Architectural Drafting I.

614-142 Concrete Detailing 3 credits
Basic concepts of design as applied to concrete beams, slabs, columns and foundations are developed. Emphasis is placed on the understanding of functional design. Practices related to the placement of reinforcing rods and to concrete mixtures, as indicated in specifications or plans, are also studied. Prerequisite: concurrent enrollment in 607-140 Strength of Materials, 614-111 Architectural Theory and Drafting I and 804-151 Technical Mathematics I.

614-147 Steel Detailing 2 credits
Orthographic projection, isometric projection, and perspective views, as related to structural steel shop drawings, are presented. Students make detailed drawings of structural steel assemblies and sub-assemblies. Prerequisite: Prerequisite: concurrent enrollment in 607-140 Strength of Materials, 614-111 Architectural Theory and Drafting I and 804-151 Technical Mathematics I.

614-148 Steel Detailing 3 credits
Students gain a basic understanding of structural sections, terms and conventional abbreviations and symbols used by the structural fabricators and erectors. They make detailed drawings of beams and columns. Use of the A.I.S.C. Handbook and the tables of squares, logarithms and the trigonometric functions are introduced for making calculations for various members and riveted connection details.

614-190 Special Problems 2 credits
Students work on individual residential design research projects. Project parameters require complete on-site energy dependence without sacrificing modern convenience, a maximum of 25,000 BTU loss, and a location north of Madison, Wisconsin. The student is exposed to solar, wind, water, methane and wood as sources of energy-efficient building design. Prerequisite: fourth semester standing.

614-193 Job Orientation 1 credit
Occupational information which prepares students to seek employment is covered, including personal data sheets, job interviews, and letters of introduction and recommendation. Former graduates are invited to discuss points of interest toward becoming an employee. Prerequisite: fourth semester standing.

621-104 Robotic Welding Systems 3 credits
Computer-aided welding applications, including material handling, positioning, jigs and fixtures are presented. Students program welding and cutting equipment to produce sound weldments. They also work with industrial robots, CAD, CAM and CNC equipment.

621-105 Fundamentals of Arc 3 credits
This course includes a study of the electric arc and its application to welding; the power supplies, characteristics and uses of welding electrodes; and the science of fusion and penetration. A study of joint design and welding symbols is also made.

621-110 Shielded Metal Arc 4 credits
Welding techniques in all positions on a variety of metals are studied. The welding techniques used for structural, pipe, pressure vessel and maintenance work are developed. Structural steel qualification skills are also developed.
621-115 Gas Welding Techniques 2 credits
A study is made of the oxy-acetylene welding process and its application. Students are also provided with an opportunity to develop techniques used in welding, brazing, surfacing and soldering.

621-120 Gas Shielding Arc Welding Process Techniques 4 credits
This course provides students with an orientation to the operation of gas shielding welding processes and equipment. The techniques of applying gas welding processes to ferrous and non-ferrous metals are developed on sheet, plate and pipe materials.

621-125 Survey of Welding Processes 4 credits
A study of all welding processes and their fundamentals, applications and economic value to the metal fabrication industries is made.

621-126 Manufacturing Materials Processing 2 credits
This course provides an introduction and orientation to the material applications field. Related technical information is supported by experiences on the operations in machining electrical, sheet metal and welding fabrication of materials. Prerequisite: 605-160 Manufacturing Processes.

621-130 Welding Codes, Analysis and Testing 4 credits
Students develop procedures in accordance with recognized welding codes written by industrial standards committees such as AWS, ASME and the Wisconsin Administrative Code for Buildings/Bridges. Non-destructive testing practices are developed along with other methods of analyzing weldments for soundness, composition, strength and service integrity.

621-140 Weldability of Materials 3 credits
The capacity of a metal to be welded under the fabrication conditions imposed and the ability to perform satisfactorily in service are studied. The similarities and differences among the various welding processes as they pertain to the weldability of metals are also examined.

621-145 Metal Work and Foundry Techniques 3 credits
This metals course provides the theory and practice needed to successfully prepare weld joints through the use of hand and machine tools.

621-146 Welding Metallurgy 3 credits
The field of metallurgy is studied, including the location of ore deposits, conditions found in the earth, derivation of metals from their ores, refining, purification, admixture and alloying, and the manufacture into ferrous and non-ferrous metals, testing of metals for mechanical properties, and common metal problems, such as fatigue and corrosion.

621-148 Welding Metalurgy 3 credits
Advanced students interested in furthering their knowledge and skills in areas such as robotic welding, metallography or weldment analysis may be assigned special problems through consultation with the department's head or division dean.

621-193 Job Orientation 1 credit
Specific occupational information which prepares students for seeking employment is presented, including personal data sheets, job interviews, letters of introduction and recommendations. Former graduates are invited to discuss needs of the student before employment. Representatives of labor, management, business and the professions are invited to discuss points of interest toward becoming an employee.

621-196 Visual Art Journal for the Visual Artist 3 credits
One and one makes three. Visual art and good writing, taken together, add up to quality and thoroughness in communication that surpass words or art presented alone. Born of this concept and operating in workshop fashion, this class gives visual communications students basic newswriting skills and style, an intensive dose of grammar and mechanics, personal interviewing skills, and other basic writing tools so they can put words and visual materials together in printed pages, slide-tape presentations, radio-TV spots, two- and three-dimensional displays and in brochures and organizational newsletters.

801-151 Communication Skills I 3 credits
This course is designed to improve students' reading, writing and researching skills. The course begins with the basics of effective writing: clear sentence structure, accurate punctuation and concise diction. Students then learn to organize their ideas into sharply focused, coherent paragraphs. Finally, students learn to use the library to find career-related journal articles and to read and summarize these articles accurately.

801-152 Communication Skills II 3 credits
This course applies the skills taught in Communication Skills I to specific communication situations, both oral and written. Students learn how to prepare a detailed resume and write effective letters and on-the-job reports. Students also learn to express themselves in a job interview, to participate in a group discussion and to organize and deliver speeches.

801-153 Technical Report Writing 3 credits
This course covers the writing of technical reports of various types and forms, including the writing of a research paper on a technical subject related to the student's occupational field of interest.

801-158 Technical Communications 3 credits
This course is designed for students who need to communicate highly technical information to persons outside their own areas of expertise. The emphasis is on speaking and writing clearly about technical processes, procedures and equipment in terms comprehensible to the lay person. Prerequisites: 801-151 Communication Skills I and 801-152 Communication Skills II or consent of instructor.

801-175 Individual Projects in News and Magazine Work 2 credits
Students write their own thoughts, stories and the stories of others for SLAMT, the student newspaper, or for freelance markets; refine photography, story illustration or cartooning skills; or plan detailed magazine, brochure or advertising page designs. Through independent study and practice, students build on their skills with weekly help and advice from professionals in journalism, art, advertising and photography. Students must obtain consent of the instructor to enroll.

801-197 Technical Reporting 3 credits
This course is a year-long investigation into technical resources and practice in preparing and presenting oral and written technical communications. Emphasis is placed on the six stages of preparation and performance: researching, planning, organizing, writing, revising and presenting. In these reports, the use of visual aids and illustrations is stressed along with audience analysis. In addition, this course also includes a technical correspondence and group problem-solving. The student engages in technical activities directly related to his/her program. Prerequisites: 801-151 Communication Skills I and second semester standing.

801-201 English Composition I 3 credits
This basic course in expository writing develops skills for preparing a research paper. The readings, which provide materials for discussion and models for study, are intended to aid the student in acquiring the skill of understanding ideas in written form. The course assumes a basic knowledge of English grammar.

801-202 English Composition II 3 credits
This course is a continuation of 801-201 English Composition I. It is intended to extend the skills of critical reading and expository writing using essays, fiction, drama and poetry to provide further practice in expressing thought through effective written English.

801-203 Advanced Composition 3 credits
This course continues the study of expository writing for students who wish to attain advanced skills in managing the written language. Prerequisite: two semesters of college English including 801-201 Composition I or consent of instructor.

801-204 Introduction to Modern Literature I 3 credits
This introductory literature course emphasizes major British and American writers of the nineteenth century with some attention to the origins of modern drama.
801-215 Survey of British Literature I
This course covers the writing of short stories, poetry and the short play or film script. Discussion focuses on students' manuscripts.

801-245 News-Writing and Reporting
This intensive introductory course in journalism has been designed to give students a better understanding of the unique role and responsibilities of the journalist working in a "free press" democratic society. The course covers the concerns, problems and techniques of the news reporter, and provides practical experience in news gathering, editing, interviewing and copywriting. Prerequisites: 801-201 English Composition I.

801-246 Feature Writing
Operating as a writer's workshop, where students read, discuss and critique one another's work, this class gives aspiring freelance writers of nonfiction, and those who might be headed for journalism school, a first chance to be published writers. Class members learn to meet deadlines, conduct interviews, choose lively story material from inside and outside the college, write query letters, and complete rigorous editing and rewriting of their own and other material. Features ranging from personality profiles, personal experiences and historical features to columns and essays are chosen for publication each month in the student newsmagazine, SLANT. Prerequisites: 801-245 News-Writing and Reporting or 801-201 English Composition I.

801-248 Visual Communication in Publications
Through reading, discussion and laboratory experience, students learn page design concepts, copypopping and headline writing, picture selection and spatial relationships leading to visual impact on the printed page. Students plan, design and edit pages for the student newsmagazine, SLANT. Students also learn the newest special effects techniques made possible by the technological changes in publishing over the past 20 years.
803-212 American History 1865 to the Present 3 credits
This course covers a survey of American political, economic and social development from the end of the Civil War to the present.

803-213 History of the American West 3 credits
This course covers the expansion, settlement and economic development of the American West, especially that region west of the Mississippi River. Emphasis is placed on developing institutions, utilization of resources, and contributions of ethnic groups (including Indians) to this history. Particular attention is given to the settlement of Wisconsin. Completion of 803-211 American History 1607-1865 or 803-212 American History 1865-1945 is recommended.

803-214 Native American History 3 credits
This course focuses on Native American cultures and histories from early times to the present. Particular attention is placed on the variety of lifestyles of native peoples, their early reactions to white men, outstanding native leaders, assimilation efforts and relations with the U.S. government. Completion of 803-211 American History 1607-1865 or 803-212 American History 1865 to Present is recommended.

803-215 American History Since 1945 3 credits
This course traces the developments in politics, society and culture of the U.S. since 1945. It focuses on new social movements among Blacks and other ethnic groups, youth and women, environmentalism and the renewal of religion in American society in recent decades. It also investigates the rise of the U.S. to global power and the domestic consequences and responses to this new status.

803-220 History of Western Civilization I 3 credits
This course is an introduction to the development of Western civilization from the inception of human society through the end of the medieval period of European society. The course emphasizes the primary social, economic, political and intellectual elements of a civilization and their interaction with physical environment and technology. The course also examines the nature of change in civilizations of the ancient and medieval periods of Western historical development and the links between the major civilizations whose history constitutes the basis for the concept of Western civilization. The primary civilizations examined are Mesopotamia, Egypt, Greece, Rome and Medieval Europe with references to other relevant societies, such as the Hebrew, Phoenician, Persian and Arabic cultures.

803-221 History of Western Civilization II 3 credits
This course offers a brief survey of Western civilization which provides general knowledge to be used in an examination of a series of topics or issues that have been and continue to be significant in the development of Western Civilization since 1600. The topics, which include industrialization, revolution and imperialism, are traced in historical context that provides a framework for an in-depth analysis of their origins and development as well as their current status.

803-223 History of the Third World: Asia 3 credits
This course is an introduction to civilization in Asia. It explores the different lifestyles and ways of thinking significant to historical development in India, China and Japan from early times to the present. The course offers perspectives on how and why these Asian societies developed their distinctive approaches to civilization, what happened to these societies as they came into contact with the West, and finally, how these societies have approached modernization. Prerequisite: one course in European History or History of Western Civilization.

803-224 History of the Third World: Africa 3 credits
This is an introduction to the civilizations of Africa from early man through the present. The course focuses on African society before western penetration, the basic nature of African institutions, the colonial experience of Africa, and the development of Africa since independence in 1960. Prerequisite: one course in European History or History of Western Civilization.

803-225 The World in the Twentieth Century 3 credits
This course focuses on the causes and consequences of the two world wars, the nature and impact of communism and fascism, the revolt against the West and the rise of the Third World, revolutionary movements and terrorism, the nuclear age and other technological and scientific developments, and their consequences for the culture of the twentieth century.
804-161 Electronics Mathematics I 4 credits
This course is a continuation of 804-151 Industrial Mathematics I. It surveys the following topics: factors of polynomials, algebraic fractions, slope and distance, inequalities, quadratic equations, graphs, linear equations in two unknowns, trigonometry and the solution of a variety of word problems. Prerequisite: 804-141 Industrial Mathematics I.

804-162 Electronics Mathematics II 4 credits
This course contains the following topics: phasor algebra and further topics in logarithmic and exponential equations with specific electronic applications, solution of second degree and higher equations using the quadratic formula and other methods, determinants and matrix algebra, binary arithmetic and Boolean algebra methods and their relationship to electronic gating circuits, trigonometric identities and solutions of trig equations, the analytical geometry of a straight line, concluding with using slope and limits to introduce graphical calculus, followed by an overview of differential and integral calculus with some applications. Prerequisite: 804-161 Electronics Mathematics I or equivalent competency level.

804-171 Basic Computer Mathematics 2 credits
This course covers problem-solving and software packages in the technical area using the IBM PC. Emphasis is placed on application problems that students may meet in their specializations. Concepts of programming include input-output of data, decisions, interactive techniques, data storage and alphanumeric data handling.

804-174 Computer Graphics in C 3 credits
This course introduces Microsoft Windows programming on the IBM PC. The compiler (and editor) used is Turbo C. While the special features of the Turbo C implementation are addressed, emphasis is placed on developing C as a structured programming language suitable for solving technical problems. Function construction and modular program design are stressed. I/O, C data types, control statements, arrays, pointers and disk file management are discussed.

804-208 Computer Science (Pascal) 3 credits
This is an introduction to the theory and use of computing machines. It covers the construction of algorithms and use of the structured language PASCAL to solve problems from the mathematical, physical or social sciences. One section of the course uses only the language PASCAL; another
section of the course also uses the procedure-oriented language FOR- TRAN. Students write approximately eight programs. The course consists of three hours of lecture and approximately one hour of informal laboratory work per week. The student should expect to spend five to seven hours per week, or his/ her own time in addition to the lecture/laboratory hours.

Prerequisite: completion of or concurrent enrollment in college algebra, or consent of instructor.

804-212 College Algebra
This course includes the fundamentals of topics covered in 804-201 Intermediate Algebra with a more axiomatic study of the set of real numbers and emphasis on the "function" concept. This course covers exponential and logarithmic functions, the theory of polynomial equations (including the factor and remainder-theorems), the use of matrices and determinants in solving linear systems of equations, mathematical induction, sequences, series, and the binomial theorem. The course meets four times per week.

804-213 Trigonometry
This course covers the study of the six trigonometric functions, their inverse functions; the solution of right and oblique triangles, basic identities, graphs of the trigonometric functions, logarithms, trigonometric equations, and functions of a composite angle. The course meets four times per week. Prerequisite: 804-212 College Algebra. Transferability: those people planning to enter the mathematics, engineering or science fields should check the school to which they plan to apply as to whether the credit for this course is transferable.

804-229 Mathematical Analysis
This course involves an integrated treatment of topics from college algebra and trigonometry and is designed to lay a sound foundation for higher courses in mathematics. Topics include: linear and quadratic functions, other polynomial functions, exponential and logarithmic functions, the trigonometric functions, and some analytic geometry in the plane. The course meets five times per week. Prerequisite: two years of high school algebra or equivalent and a satisfactory mathematics placement test score.

804-231 Calculus and Analytic Geometry I
This course is designed for students of mathematics, science and engineering. It provides an introduction to plane analytic geometry, basic properties of limits, rate of change of functions, continuity, simple derivatives of algebraic functions, curve sketching, maxima and minima, indefinite integral with applications, approximating an integration and applications of definite integration, such as area between two curves, volumes, surface area of revolutions, centroids, hydrostatic pressure and work. Differentiation and integration of inverse trigonometric functions and natural logarithms are covered. The course meets five times per week. Prerequisite: 804-213 Trigonometry, 804-229 Mathematical Analysis or consent of instructor.

804-232 Calculus and Analytic Geometry II
This course is designed for students of mathematics, science and engineering. It covers the topics involving the method of partial fractions, integration by parts, geometry of cones and conics, Polar curves, areas and integrals involving polar coordinates, parametric equations in kinematics and analytic geometry and vector differentiation are covered. Scalar and vector product of two vectors, differentiation of vectors, space curves, infinite series and convergence are covered. The course meets five times per week. Prerequisite: 804-231 Calculus and Analytic Geometry I or consent of instructor.

804-240 Basic Statistics
This is a basic college statistics for persons with a minimum knowledge of algebra. Appropriate techniques are studied for the systematic collection, presentation, analysis and interpretation of experimental results. In particular, formal procedures are developed that deal with the inherent uncertainty in inferences and decisions made when the underlying data are subject to random variation. Topics covered include descriptive statistics, basic probability theory, the binomial, normal, Student's chi-squared, and F distributions. In addition, the method of least squares and the one-way analysis of variance are developed and demonstrated. The primary focus of the course is the methodology of doing statistical inference (especially confidence intervals and hypothesis testing) about population parameters based on sample data. To this end, sampling distributions and the Central Limit Theorem are investigated.

804-302 Mathematical Fundamentals
This course is for students who need to review the fundamentals of arithmetic. It covers operations with whole numbers, decimals, fractions, per cents, proportions, units of measurement, powers and square roots, areas and volumes, signed numbers and solving simple equations.

804-306 Pre-College Algebra
This basic algebra course covers the four fundamental operations with signed numbers, fractions and polynomials in addition to graphing, solving linear equations and inequalities, factoring, solving quadratic equations by factoring, and solving systems of linear equations in two variables. Prerequisite: adequate skill in basic arithmetic.

804-308 Pre-College Geometry
This course covers the major concepts of geometry and is an accelerated version of the typical one-year course. Emphasis is placed on the use and understanding of the important facts about parallel lines, congruent triangles, circles and right triangles. Prerequisite: adequate skill in basic arithmetic.

804-310 Transition to College Mathematics
This course is designed for students who have completed high school algebra and geometry, yet are not ready for college-level intermediate algebra or technical mathematics. The course takes a non-traditional numeric approach to algebra, providing a basic algebra review with emphasis on the calculator, problem-solving and graphing. Topics include fractions, decimals, exponents, problem solving, linear equations in one and two variables, operations on polynomials, quadratic equations, rational expressions and fractional equations.

804-378 Mathematics I (for Food Service and Food Preparation Assistants)
1 credit
Student objectives for this course are: to become proficient in basic operations using whole numbers, common fractions and decimal fractions; to understand percent and be able to solve problems involving it; to be able to solve verbal problems as a consumer and as one preparing for an occupation; to obtain an introduction to the metric system, particularly the volume measures used in food preparation.

804-379 Mathematics II
1 credit
This course involves a review of fractions, decimals and percentage including the metric system, measurement, geometry, instrumentation and an introduction to calculators. The course is modified to meet the needs of a particular vocation.

804-380 Mathematics III
1 credit
This course covers simple algebra (signed numbers, algebraic manipulations, equations), ratio and proportion, graphs, and right triangle trigonometry. The course is modified to meet the needs of a particular vocation. Prerequisite: 804-379 Mathematics II or its equivalent.

804-381 Mathematics IV
1 credit
This course is for machine tool students only. The trigonometry consists of solutions of right and oblique triangles with specific application, the arithmetic of which is done on the hand-held calculator. The binary system is covered with the decimal number system, and application to numerical control is made. Graphing with rectangular coordinates is also applied to numerical control. In addition, formulas with application to the trade are studied. Prerequisite: 804-380 Mathematics III or its equivalent.

804-390 Computer Prep Math
1 credit
This course is an introduction to IBM-compatible personal computers. Each class hour starts with a brief explanation of the current topic followed by student work on the computers. The course centers on twelve assignments, each of which requires one or more pages of printout. Students first become familiar with the keyboard, monitor, printer and disk drive so they can save, retrieve and print their files. The rest of the course introduces WordPerfect, a database program; dBase, a database program; Lotus 1-2-3, a spreadsheet program; and Basic, a programming language. Microcomputer terminology is explained throughout the course.
### COURSES 805-201 TO 806-142

#### 805: Music

- **805-201 New College Singers** 1 credit  
A swing/show choral ensemble that performs the most current popular music with singers and dancers and light-sound-directing personnel; this course gives the participants an opportunity to work within the serious production of popular music at the college level. Students are encouraged to audition the first week of each semester.

- **805-205 Vocal Ensemble** 1 credit  
This ensemble consists of students interested in vocal music literature. A wide variety of music is covered. No prerequisite is necessary.

- **805-210 Jazz Ensemble** 1 credit  
A twenty-piece big band rehearsing and performing jazz literature, this course emphasizes jazz style and improvisation. Auditions are necessary.

- **805-215 Contemporary Music History** 3 credits  
This course takes a look at contemporary classical, pop and jazz music styles beginning with the turn of the century.

- **805-227 Music Appreciation** 2 credits  
This is a general survey course in music for those interested in learning through listening to performances of music recordings. The goal is to learn how to properly listen to music.

- **805-243 Instrumental Ensembles** 1 credit  
This course involves rehearsal and performance of music from various ensembles. It is open to all MATC students.

- **805-260 Basic Music Theory** 2 credits  
This is a course in developing basic music concepts in notation, intervals, scales, chords and rhythm through sight singing and elementary dictation. No previous musical knowledge is required.

- **805-261 Music Theory I** 4 credits  
This comprehensive course is designed to develop an understanding of common musical structures from both classical and popular idioms. It emphasizes literacy in standard musical notation, the understanding of keys and scales, chord structure and progression, harmony writing and arranging, form and composition. The course requires a basic reading knowledge of music. Students should have a strong music background or have taken 805-260 Basic Music Theory.

- **805-262 Music Theory II** 4 credits  
This is a continuation of 805-261 Music Theory I, with special emphasis on secondary chord relationships, modulation, pop and jazz chord symbols, and composition. Prerequisite: 805-261 Music Theory I.

- **805-265 General History of Music** 3 credits  
This course involves a survey of music styles in Europe through extensive record listening and biographical studies of composers during the Baroque, Classic and Romantic periods. Special guest lecturers and attendance at special concerts are an important part of the course.

- **805-267 Ear Training and Keyboard Theory** 2 credits  
This course offers practical musical skills for all types of musicians. It includes aural identification of scales, intervals and chords; melodic, rhythmic and harmonic dictation; and basic functional keyboard harmony. This course is strongly recommended for all Music Theory students.

- **805-270 The Music Listener** 1 credit  
The diverse aspects of the listening experience are considered. This course includes viewing of live performances and videos, listening to recordings, and class discussion. Minimal out-of-class reading and written work are required.

- **805-275 Musicianship for Pop/Rock Instrumentalists** 2 credits  
This course deals with the handling and management of both the musical and business aspects of the working musician. Emphasis is made on practical techniques for rehearsals, advertising, contracting and related topics.

- **805-276 Music Television** 3 credits  
This course is a study of the history, and an analysis of, music videos. This includes both their musical and visual content. Students produce a music video which they write, direct and film.

#### 806: Natural Science

- **806-104 General Cell Biology** 4 credits  
As an introduction to cells, course lectures emphasize the structure, diversity, chemistry and physiology of cells. Basic processes, such as cellular respiration, photosynthesis and division, are discussed. Genetics principles, as well as the molecular activities involved in DNA, RNA and protein synthesis, are described. Laboratory activities involve the study of measurement in biological systems and the use of statistics, population growth dynamics, respiration, fermentation and enzymology.

- **806-105 Principles of Animal Biology** 4 credits  
This is an introductory-level course focusing on general biological principles, cell structure and function, comparative morphology of invertebrates, genetics and human anatomy and physiology. Some consideration is given to biological processes as they relate to human ecology.

- **806-110 Technical Chemistry** 4 credits  
Technical Chemistry is a one semester chemistry course for students requiring skills and knowledge of the following topics: preparation and properties of solutions, acid-base chemistry and preparation of buffer solutions, chemical and solubility equilibria, and an introduction to organic and biological chemistry. Basic laboratory skills are developed, including measurement of mass, volume, pH, temperature, and solution concentration. Pipetting, titrating, and using the U.V.-Vis. spectrophotometer are emphasized. Prerequisite: one year of high school chemistry and/or pre-college chemistry and a passing grade on the pre-enrollment chemistry exam, or consent of the instructor. This course requires knowledge of the basic concepts taught in a first semester introductory chemistry course.

- **806-111 Chemistry I** 4 credits  
This course exposes students to the fundamental concepts of inorganic chemistry. Emphasis is placed on learning the basic principles and quantitative measurements used in chemistry. This foundation course consists of three hours of lecture and one, two-hour laboratory period per week.

- **806-112 Chemistry II** 4 credits  
This is a continuation of 806-111 Chemistry I. If offers further study of basic chemical principles and the application of these principles. Students are introduced to the properties, structures and reactions of organic compounds. Elementary aspects of biochemistry are considered.

- **806-141 Technical Science I-S** 3 credits  
In this course, the basic concepts of chemistry and physics are studied. Systems of units are first introduced, followed by elements, compounds, atomic structure, chemical symbols, the periodic chart and quantitative chemical relationships. Chemistry also includes properties of acids, bases and salts and acid-base indicators and selected areas of practical or applied chemistry. Physics topics include fluids, elasticity and laws of heat and gas. Emphasis is placed on qualitative phenomena with a de-emphasis on mathematical abilities for students. This course is broadly correlated with 804-141 Industrial Mathematics. Students enrolled in visual communication receive expanded study in the areas of light, vision, color, optics and optical instruments. Prerequisite: one year of high school science.

- **806-142 Technical Science II-S** 3 credits  
This survey course introduces students to the elementary concepts of physics and how these concepts are applied to basic technology. The course includes vector mechanics, statics, dynamics and introductory rotational mechanics. Statics and dynamics of fluids are briefly introduced. Heat and temperature, illumination and geometric optics, elementary electricity and magnetism are presented. This course includes approximately 34 hours of integrated student laboratory exercises. It is more problem-oriented than Technical Science I. The course is broadly correlated with 804-142 Industrial Mathematics II. Prerequisite: 806-141 Technical Science I-S or equivalent.
806-151 Technical Science I 3 credits
In this course, the basic concepts of chemistry and physics are studied. Chemical symbols, formulas, equations, atomic structure and chemical bonding are introduced. The kinetic molecular theory, states of matter, solutions, acids, bases, salts and the compounds of carbon are presented. The course includes thermal properties of matter and methods of heat transfer, and the study of elasticity and fluids. Emphasis is placed upon the application of scientific principles to the solution of problems encountered in modern technology. Prerequisite: 804-151 Technical Mathematics I or 804-161 Electronics Mathematics I.

806-152 Technical Science II 4 credits
This course begins with the study of vector analysis and proceeds through statics and dynamics. Both translational and rotational mechanics are studied. After work, energy and power are introduced, thermodynamics is studied. A brief introduction to wave motion follows. Geometric and physical optics precede an introduction to electricity and magnetism. As in 806-151 Technical Science I, emphasis is placed upon the application of basic scientific principles to the solution of practical problems encountered in modern technology. Prerequisites: 806-151 Technical Science I or equivalent, 804-151 Technical Mathematics I or 804-161 Electronics Mathematics I. Corerequisite: 804-152 Technical Mathematics II or 804-162 Electronics Mathematics II.

806-155 Health Technical Science 3 credits
The main objectives of this course are to develop a conceptual foundation of the basic properties of physics and to provide practical lab experience concerning the basic laws as applied to the field of respiratory therapy. Topics include the metric system, motion, force, energy, heat, pressure, hygrometry, static electricity, electric current and electric supply.

806-156 Radiography Technology Physics 3 credits
The main objectives of this course are to develop a conceptual foundation of the basic properties of physics and provide practical lab experience concerning the basic laws as applied to the field of radiography technology. Topics covered include mechanics, structure of matter, electrostatics, magnetism, electric circuits, electromagnetism, and rectification. There is a close correlation between material presented in lecture and laboratory experiments and experience. Prerequisite: high school algebra and physics or their equivalents are useful.

806-201 General Chemistry 5 credits
This course is primarily designed for students who need a modern, relevant chemistry for one of the allied health fields. This is a survey course covering a broad range of topics. Lectures and laboratory experiences cover the fundamental aspects of inorganic chemistry followed by the essentials of organic chemistry and an introduction to biological chemistry. Topics covered include elementary problem-solving, atomic structure, periodicity and bonding, reactions and energy changes, nuclear chemistry, solutions, colloids, organic functional groups and their reactions, lipids, carbohydrates, proteins, hormones, DNA and an introduction to metabolism. Prerequisite: one year of high school chemistry or pre-college chemistry.

806-203 Animal Biology 4 credits
This course covers general biological principles and emphasizes cell structure and function, comparative morphology of invertebrates, vertebrate anatomy, physiology and genetics. General consideration of biological processes, as they relate to human ecology, is given. Animal Biology, taken, with Zoology Concepts, equals five credits in Animal Biology.

806-205 Zoology Concepts 1 credit
This course discusses current issues in zoology and is supported by films, readings and student projects. The major part of the course is student-directed on topics of current biological importance. Prerequisite: concurrent enrollment in or completion of 806-203 Animal Biology.

806-206 General Anatomy and Physiology 4 credits
This course 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. Laboratory exercises include student dissection of fresh and preserved material as well as examination of a human cadaver. Prerequisite: one year of high school chemistry. This course is not acceptable in programs requiring two semesters of Anatomy and Physiology.

806-207 Anatomy and Physiology I 4 credits
This course features lectures and laboratory dealing with the human body as an integrated structural and functional unit including basic biochemistry, cell structure and physiology, histology, integument, nervous, endocrine, skeletal and muscular systems. Laboratory exercises include student dissection of various fresh and preserved materials as well as examination of a human cadaver. Prerequisite: one year of high school chemistry or one semester of college-level chemistry. This course is the first semester of a two-semester sequence and is not acceptable where a one-semester Anatomy and Physiology course is required.

806-208 Anatomy and Physiology II 4 credits
This course features lectures and laboratory exercises dealing with the human body as an integrated structural and functional unit including the circulatory, respiratory, digestive, excretory and reproductive systems. Laboratory exercises include student dissection of a cat as well as examination of a human cadaver. Prerequisite: 806-207 Anatomy and Physiology I or consent of instructor. This course is the second semester of a two-semester sequence and is not acceptable where a one-semester Anatomy and Physiology course is required.

806-209 Introductory College Chemistry I 5 credits
This is the first semester of a two-semester sequence in general college chemistry. Emphasis is placed on developing an in-depth understanding of chemical principles and concepts. Laboratory work is designed to assist students in understanding chemical concepts and to develop their problem-solving skills. The course is designed for those students expecting to take more than one semester of college-level chemistry. The student may complete the year of general college chemistry with either 806-210 or 806-212. Prerequisites: two years of high school mathematics or equivalent and one year of high school chemistry or 806-377 Pre-College Chemistry.

806-210 General and Biological Chemistry 5 credits
This course continues the quantitative inorganic emphasis established in 806-209 Introductory College Chemistry and includes the topics of kinetics, equilibrium, thermochemistry and electrochemistry. In addition, the major portion of the semester is devoted to an introduction of organic chemistry and biochemistry.

806-212 Introductory College Chemistry II 5 credits
This is a continuation of 806-209 Introductory College Chemistry I. The course includes application of principles to chemical reactions, thermochemistry, electrochemistry, qualitative analysis, coordination compounds and organic structures. Material is presented in lecture, discussion and laboratory settings. Prerequisite: 806-209 Introductory College Chemistry I.

806-213 Organic Chemistry I 5 credits
This course is an introduction to the subject of organic chemistry. Topics include the classification of organic compounds and the types of reactions they undergo, as well as the manner in which they proceed. The relationship of organic compounds to the environment is emphasized throughout the course. Laboratory experiments allow for the actual performance of reactions discussed theoretically in class. Prerequisite: one semester of college chemistry or consent of instructor.

806-214 Organic Chemistry II 5 credits
Organic Chemistry II is a continuation of 806-213 Organic Chemistry I. Topics include mass spectroscopy and U.V.-Vis. spectrophotometry; chemical synthesis using enolates, carbamions, and pericyclic reactions; and an introduction to biochemistry, including carbohydrates, lipids, amino acids, proteins and nucleic acids. The nomenclature, mechanisms, reactions and properties of the following classes of compounds is discussed: aldehydes, ketones, carboxylic acids, esters, acylation, halides, amines, amides, polycyclic aromatics, and heterocyclic aromatics. The course includes four hours of lecture and discussion and a three hour lab component each week.

806-215 Botany 4 credits
Plant science deals with a wide variety of organisms that are of great interest and are basic to our survival. These organisms are viewed from various perspectives-taxonomic, physiological, ecological, etc.—in hopes of deve-
opining an overall understanding and appreciation of their value and beauty. This will hopefully lead to wiser use and fuller life. Areas of emphasis include taxonomy and evolution, physiology, anatomy and ecology. A survey of plants and plant-like organisms is presented.

**806-217 Botanical Concepts** 1 credit

This course is an informal discussion period intended to provide students with a forum for discussing topics of their choice. The collection and free interchange of information and ideas is encouraged. Analysis and evaluation of student topics helps students to understand and function in today's highly technical world.

**806-221 General College Physics I** 5 credits

Physics 806-221 is the first semester of a one-year introductory course. The main objectives of this course are to develop a conceptual understanding of the basic properties of physics and to provide practical hands-on lab experience, which helps to broaden the understanding of physics. Understanding basic concepts serves as a foundation for the student to use, or see the use of, physics in his or her current or future profession and in the common events of everyday life. The course covers the basic properties of motion, force, energy, momentum, fluids, heat, thermodynamics and relativity. Developing good problem solving strategies is stressed. Prerequisites: two years of high school algebra and one year high of school geometry or equivalent. Trigonometry or high school physics or 806-358 Pre-College Physics are helpful if the student's algebra and problem-solving skills are weak.

**806-222 General College Physics II** 5 credits

Electricity, magnetism, optics and atomic physics are studied in this course through lecture, demonstrations and laboratory work. Prerequisite: 806-221 General College Physics I or equivalent.

**806-230 Human Anatomy** 4 credits

This course is a rigorous introduction to the structure of the human body for students in allied health or college transfer programs. Human development, histology and gross anatomy of each system are covered in detail. Normal functioning and selected dysfunctions are discussed in order to provide clear understanding of the role of each system. Detailed observation and dissection of human anatomical material (cadaver, selected organs, etc.) are used to develop a sound three-dimensional perspective on body structure.

**806-231 Biology of Human Aging** 4 credits

This course focuses on the biological phenomena associated with aging, including theories and characteristics of aging, and the reversibility and irreversibility of bodily functions and behavioral alterations as they are affected by neurological, immunological, endocrinological, myological, skeletal and circulatory changes. Prerequisite: a college-level biology, anatomy or physiology course, chosen from among 806-103, 806-105, 806-203, 806-206, 806-207, 806-208, or an equivalent post-secondary course.

**806-241 Earth Science** 3 credits

This course introduces students to the physical nature of the earth. The atmosphere, hydrosphere and lithosphere are studied in detail. Physical processes and an understanding of their causes and effects are investigated.

**806-242 Life in the Past** 3 credits

This course covers minerals, rocks, geologic time, origin of life, paleobiology, evolution and classification of fossil plants, invertebrates, and vertebrates in lecture and lab. An optional field trip is featured.

**806-243 Survey of Astronomy** 4 credits

This is an introductory course covering the observations, theories and principles of astronomy. Areas covered include the history of astronomy, telescopes, the earth and solar system, stars and their evolution, galaxies, and the evolution of the universe. The course consists of lecture-discussion sessions with some evening meetings for star viewing with the school's 8-inch telescope. Recommended prerequisite: high school algebra.

**806-255 Survey of Biochemistry** 4 credits

This survey of basic biochemistry is especially appropriate for nursing students or others in health-related fields. The structure and metabolism of amino acids, proteins, carbohydrates, lipids and nucleic acids are discussed. Other topics include enzyme function and inhibition, hemoglobin, metabolic diseases, membranes, hormones, vitamins, nutrition, bioenergetics, protein synthesis and DNA structure and function. Prerequisites: at least one semester of college chemistry, including a basic knowledge of organic functional groups, or consent of the instructor. Courses which satisfy this requirement are 806-201 General Chemistry, 806-210 General and Biological Chemistry or 806-212 Introductory College Chemistry I; or UW's Chemistry 104 or 108.

**806-273 Microbiology** 3 credits

This is an introductory course in microbiology. General topics and specific microbial pathogens are discussed. Material is coordinated in such a way that the same topics are covered in lecture and laboratory at the same time. Topics include: morphology of micro-organisms, sterilization and disinfection methods, pathogens causing disease in various body systems, normal flora of the body, drug sensitivity testing, complete blood counts, dental microbiology, fungal infections, eucaryotic parasites and serologic testing for viral infections and pregnancy testing.

**806-274 General Microbiology** 5 credits

This survey course includes the structure, function, ecology, nutrition, physiology and genetics of micro-organisms as well as a discussion of medical, industrial, agricultural and food microbiology. The course also includes an introduction to standard techniques and procedures used in the microbiology laboratory.

**806-280 Environmental Issues** 4 credits

This course introduces diverse issues of human impact on the earth's ecosystems and how humans must deal with the results because we are part of these ecosystems. Students explore local, state, national and international environmental topics. Chemical and biological effects on the environment are studied using a systems approach to understand the whole and its parts, in an attempt to understand the nature of various environmental issues. Socio-economic, political and ethical aspects are examined to assess solutions to these complex problems.

**806-307 Applied Physical Science** 2 credits

This course covers the fundamental principles of physical science that have practical applications in the printing industry. Emphasis is placed on the physical and chemical properties of matter as well as its composition.

**806-358 Pre-College Physics** 3 credits

Pre-College Physics is a one semester introductory course, which provides excellent preparation for algebra-based college level physics or for physics-based technical science. Students are introduced to some of the basic concepts of physics through lecture, demonstrations and lab experience, developing good algebra-based problem solving skills and strategies. The course covers the basics of scientific notation, metric system, significant figures, motion, force, energy, momentum and relativity.

**806-363 Science I** 2 credits

This course involves study of those basic principles of physics which have frequent and common practical applications for students pursuing vocations in trade and industry. Emphasis is on relating applications to student vocational fields. Topics include measurement, energy and power, machines, properties of matter, fluid principles and heat. The course features lecture, discussion and laboratory.

**806-377 Pre-College Chemistry** 3 credits

This one-semester course is designed for students who have not been exposed to chemistry at the high school or post-high school levels. Lectures and laboratory experiences cover some of the fundamental aspects of inorganic chemistry. Relevant mathematical manipulations are introduced as required. The course is an excellent preparation for college-level chemistry courses. Topics include the metric system, scientific notation and significant figures, properties of matter, atomic theory, nomenclature of simple inorganic compounds, periodic properties of the elements, writing of chemical equations, use of the mole concept, calculations from balanced equations, and studies of the liquid and gaseous states of matter.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>807-150</td>
<td>Physical Education for Public Safety</td>
<td>2 credits</td>
<td>This course involves conditioning techniques, strength training and assessment of physical fitness tools. Apprehension holds and self-defense are also covered.</td>
</tr>
<tr>
<td>807-183</td>
<td>Aerobic Exercise</td>
<td>1 credit</td>
<td>This introductory course uses the movement activities of the aerobic approach to fitness.</td>
</tr>
<tr>
<td>807-184</td>
<td>Group Exercise/Aerobic Leadership</td>
<td>1 credit</td>
<td>This course consists of group exercise techniques and emphasizes a variety of teaching methods directed at training individuals interested in a career in the fitness industry. Prerequisite: 807-183 Aerobic Exercise or 807-283 Aerobic Dance.</td>
</tr>
<tr>
<td>807-207</td>
<td>Introduction to Triathlon</td>
<td>1 credit</td>
<td>This course develops an understanding of the principles of conditioning and exercise with specific student application to triathlon training.</td>
</tr>
<tr>
<td>807-209</td>
<td>Baseball/Conditioning</td>
<td>1 credit</td>
<td>This is an introductory course designed to cover basic baseball skills, rules, strategy and play. Fitness methods and concepts are applied to the activity of baseball.</td>
</tr>
<tr>
<td>807-210</td>
<td>Conditioning/Weight Training</td>
<td>1 credit</td>
<td>This course covers techniques and methods for body development, conditioning, nutrition and safety. It is a personal program tailored to individual objectives.</td>
</tr>
<tr>
<td>807-211</td>
<td>Conditioning/Basketball II</td>
<td>1 credit</td>
<td>This advanced course is set up for individual needs in conditioning, basketball skill development and team concepts.</td>
</tr>
<tr>
<td>807-212</td>
<td>Advanced Weight Training</td>
<td>1 credit</td>
<td>This continuing course student knowledge of current weight training practices and trends. Aimed at individual interests, the course offers a review of beginning practices and terminology followed by an intensive program of physical development utilizing various techniques and equipment. Pre-requisite: 807-183 Aerobic Exercise or 807-283 Aerobic Dance.</td>
</tr>
<tr>
<td>807-221</td>
<td>Conditioning/Basketball I</td>
<td>1 credit</td>
<td>This is an introductory course in basic basketball skills, rules, strategies and game play. Fitness activities specific to the game are emphasized.</td>
</tr>
<tr>
<td>807-223</td>
<td>Volleyball I</td>
<td>1 credit</td>
<td>This is an introductory course in volleyball. Skills basic to the power game as well as rules and strategy for the beginning player are covered. Fitness activities specific to volleyball are included.</td>
</tr>
<tr>
<td>807-224</td>
<td>Volleyball II</td>
<td>1 credit</td>
<td>This course includes advanced skills and team strategies for the serious power volleyball player. Conditioning appropriate to advanced techniques is included.</td>
</tr>
<tr>
<td>807-225</td>
<td>Softball/Conditioning</td>
<td>1 credit</td>
<td>This is an introductory course designed to cover basic softball skills, rules and strategy. Fitness methods and concepts are applied to the activity of softball.</td>
</tr>
<tr>
<td>807-230</td>
<td>Swim I</td>
<td>1 credit</td>
<td>This course is for non-swimmers or swimmers with limited water skills, leading to improved proficiency and water adjustment.</td>
</tr>
<tr>
<td>807-231</td>
<td>Swim II</td>
<td>1 credit</td>
<td>This course covers advanced skills in propulsion, water entry, water safety and elementary rescue techniques leading to Red Cross certification.</td>
</tr>
<tr>
<td>807-232</td>
<td>Water Aerobics</td>
<td>1 credit</td>
<td>This course covers the principles of and experiences in aerobic conditioning through the activity of swimming, for students of all skill levels.</td>
</tr>
<tr>
<td>807-233</td>
<td>Lifeguard Training</td>
<td>1 credit</td>
<td>This course is designed to prepare individuals to assume the duties and responsibilities of lifeguards at swimming pools and at protected non-surf, open water beaches.</td>
</tr>
<tr>
<td>807-234</td>
<td>Scuba Diving</td>
<td>1 credit</td>
<td>This course outlines classroom, pool and open water diving, which may lead to lifelong PADI certification. Course fees include all necessary equipment, books and other materials. No prior experience is necessary.</td>
</tr>
<tr>
<td>807-235</td>
<td>Racquetball I</td>
<td>1 credit</td>
<td>This course reviews the basics of racquetball, continuing into advanced skills and strategies of game play.</td>
</tr>
<tr>
<td>807-236</td>
<td>Tennis I</td>
<td>1 credit</td>
<td>This introductory course focuses on basic stroke development, rules and strategy. Fitness activities specific to tennis are included.</td>
</tr>
<tr>
<td>807-237</td>
<td>Tennis II</td>
<td>1 credit</td>
<td>This course covers intermediate and advanced stroking and shot making plus racket grips, control and footwork. Game play includes advanced strategies in singles and doubles.</td>
</tr>
<tr>
<td>807-238</td>
<td>Racquetball II</td>
<td>1 credit</td>
<td>This introductory course covers the fundamentals of racquetball, emphasizing skills and strategy for the beginning and intermediate player.</td>
</tr>
<tr>
<td>807-240</td>
<td>Golf I</td>
<td>1 credit</td>
<td>This co-ed course stresses building an individual golf swing, shot making, rules and playing strategies.</td>
</tr>
<tr>
<td>807-241</td>
<td>Golf II</td>
<td>1 credit</td>
<td>This is an advanced course designed for serious intermediate and advanced golfers who want to improve their game. Emphasis is on practice routines, actual play and strategies for special shot making techniques.</td>
</tr>
<tr>
<td>807-242</td>
<td>Bowling I</td>
<td>1 credit</td>
<td>This course covers basic bowling techniques for beginners and advanced beginners. It includes the principles and development of the approach and delivery, rules and competition.</td>
</tr>
<tr>
<td>807-243</td>
<td>Dance I</td>
<td>1 credit</td>
<td>This course covers the basic techniques and creative experiences in dance movement.</td>
</tr>
<tr>
<td>807-244</td>
<td>Dance II</td>
<td>1 credit</td>
<td>This course covers intermediate and advanced techniques, creative activities and composition in dance dynamics. Experiences in special dance forms such as ballet, jazz, and modern are offered.</td>
</tr>
<tr>
<td>807-245</td>
<td>Social Dance</td>
<td>1 credit</td>
<td>This course develops knowledge and skills in the standard ballroom dance styles.</td>
</tr>
<tr>
<td>807-246</td>
<td>Contemporary Dance</td>
<td>1 credit</td>
<td>This summary course emphasizes contemporary dances with practical application.</td>
</tr>
<tr>
<td>807-250</td>
<td>Badminton</td>
<td>1 credit</td>
<td>This is an introductory course in badminton designed to provide basic skills and strategy of game play. Fitness activities specific to badminton are also included.</td>
</tr>
<tr>
<td>807-253</td>
<td>Archery</td>
<td>1 credit</td>
<td>Archery stresses shooting techniques, equipment and safety, competitions and their rules. The course is appropriate for all ability levels.</td>
</tr>
<tr>
<td>807-265</td>
<td>Soccer</td>
<td>1 credit</td>
<td>Soccer incorporates basic playing skills and fundamentals into a team game.</td>
</tr>
<tr>
<td>807-266</td>
<td>Wellness—Today</td>
<td>2 credits</td>
<td>This course is a contemporary approach to wellness, focusing on the health-related aspects of fitness. Major topics include: cardiovascular fitness, muscular strength and endurance, flexibility, body composition, nutrition and weight measurement, relaxation and stress management, and occupational fitness. The course culminates with an individualized development of a life-long wellness plan.</td>
</tr>
<tr>
<td>807-270</td>
<td>Bicycle Conditioning/Maintenance</td>
<td>1 credit</td>
<td>This course outlines the principles of conditioning and different techniques of training, whether alone or in group rides. Exercise sessions include both aerobic and anaerobic work. Basic bicycle maintenance and equipment are discussed.</td>
</tr>
</tbody>
</table>
807-279 Cross Country Skiing 1 credit
This practical course emphasizes techniques and safety in skiing, trail selection and planning, selection, care and maintenance of equipment.

807-283 Aerobic Dance 1 credit
This course focuses on an aerobic approach to fitness, utilizing aerobic dance movement activities.

807-295 Fall Sports Officiating 1 credit
This course is designed to develop skills in officiating volleyball and basketball (men and women). These skills may lead to WIAA certification.

807-286 Spring Sports Officiating 1 credit
This course is designed to develop skills in officiating softball and baseball. These skills may lead to WIAA certification.

807-289 Aerobic Dance/Weight Training 1 credit
This fitness course combines the aerobic approach to conditioning with lighter weights training approach.

807-290 Special Physical Education 1 credit
This course emphasizes beginning lead-up skills and strength development based on individual needs. Each student is provided with opportunities for the development of muscular strength, organic vigor, joint function and endurance. Social interaction via recreational games is encouraged. Individual programs and objectives are set up by a committee, incorporating therapy, restoration and correction of function(s).

808 Reading

808-103 Reading Improvement: College 2 credits
This course is for those who want to learn to read introductory college level texts in General Studies. The course builds a general adult vocabulary used in reading a textbook. Through discussion and demonstration, students learn concentration, study strategies and test taking in a variety of subjects.

808-105 Reading Improvement: Technical/Scientific 2 credits
This course is for students who want to read technical/scientific textbooks. Word roots of the scientific vocabulary are taught as a basis for learning, remembering and thinking with the language of science.

808-107 College Vocabulary 1 credit
This course develops college vocabulary to express complex ideas. Through demonstration and discussion, students learn semantic variations of words as used in various contexts. Students also learn differences between synonyms and euphemisms.

808-120 Speed Reading 2 credits
This course is for average readers who want to motivate themselves to read faster than they previously read. Through demonstration and discussion (with some pacing devices), students learn to use speed of thinking as the key to better understanding. Vocabulary is incidentally taught.

808-303 Introductory Reading (Developmental) 3 credits
This course is designed for students reading at an introductory level (fifth to eighth grade level). Individual and group instruction is given with emphasis on learning strategies needed to develop vocabulary and comprehension skills. This instruction is based on reading tasks encountered in daily life. Study skills, enabling the student to function independently in content or program courses, are also emphasized. Other practical reading skills are also stressed. Prerequisite: reading at the fifth grade level.

808-304 How to Study 1 credit
This is a short course on study-type reading offered three hours a week for nine weeks with open enrollment twice each semester. The student is introduced to and given the opportunity to apply efficient study techniques needed for effective textbook reading. Managing time, preparing to write a research paper and building exam competence are discussed.

808-307 Occupational Reading 2 credits
This course is designed for vocational-technical students who will be required to read technical reading matter in their textbooks or on-the-job manuals. The course focuses on vocational vocabulary, interpretation of illustrations and graphics found in textbooks, and comprehension of technical reading.

808-310 Intermediate Reading 3 credits
This course is designed for students reading at the high school level who need to develop and improve basic reading skills needed for college textbook reading. The emphasis is on vocabulary building and comprehension skills. Some study techniques which are needed to aid students in reading content material are included. Critical reading and the ability to draw correct inferences are also discussed. Prerequisite: reading at the eighth grade level.

808-315 Reading Vocabulary: Intermediate 1 credit
This course is for the student who wants to learn a general adult vocabulary. The words are commonly used in social interaction, the mass media and college study, yet are frequently unknown to beginning post-secondary students.

809 Social Science

809-115 Leadership Attitudes and Motivation 3 credits
This 30-hour course is divided into modules which are presented, ideally, in ten sessions of three hours each. A qualified coordinator guides and times the participants through the 74 projects with the help of printed reading materials, and ten taped reinforcement messages.

809-125 Government Process and Practice 3 credits
This course focuses on the structure and functioning of state and local governments within the context of federalism. Emphasis is placed on decision-making, structure, theory, behavioral characteristics and citizen participation. Although this is not a course in Wisconsin state and local government, Wisconsin provides the most often utilized cases.

809-127 Human Development 3 credits
This course is concerned with the physical, motor, cognitive and social development of the human across the lifespan. Emphasis is on recognition of and adjustment to normal development stages and typical life problems. The role of parents, peers and environmental factors on development and behavior is highlighted.

809-143 Family in America 3 credits
This course emphasizes problems facing the family in contemporary American society, including marital conflict and adjustment, parent-child relationships, and societal pressures.

809-195 Economics 3 credits
This course gives an overview of how a market-oriented economic system operates and surveys the factors that influence national economic policy. Basic concepts and analyses are illustrated by reference to a variety of contemporary problems and public policy issues. Concepts include scarcity, resources, alternative economic systems, growth, supply and demand, monetary and fiscal policy, inflation, unemployment and global economic issues.
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<tbody>
<tr>
<td>809-197</td>
<td>Contemporary American Society</td>
<td>3</td>
<td>In this interdisciplinary course, students examine social systems which affect them as employees, family members and citizens. Students study issues that illustrate how our traditional institutions (such as family, education, media, the workplace, the economy and government) are being changed by global political, demographic, multicultural and technological trends. By exploring contemporary issues, students expand their use of creative and critical thinking skills in evaluating information, making a decision, advocating a position, and participating in the democratic process.</td>
</tr>
<tr>
<td>809-198</td>
<td>Psychology of Human Relations</td>
<td>3</td>
<td>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.</td>
</tr>
<tr>
<td>809-202</td>
<td>Social Disorganization</td>
<td>3</td>
<td>This course examines the major issues confronting society: economic and political change, nationalism, race and ethnic relations, sexism, social and economic class, crime and justice, health and education, and family life. Causes, effects, possible solutions and future trends are discussed.</td>
</tr>
<tr>
<td>809-204</td>
<td>Marriage and the Family</td>
<td>3</td>
<td>This course is designed to assist students to obtain an understanding of dating, love, mate selection, sexuality, marital adjustment and parenting in American society; to gain personal insight into how to grow and develop as individuals, partners and parents within the institution of the family; and to achieve a meaningful and satisfying marriage and family life.</td>
</tr>
<tr>
<td>809-205</td>
<td>Contemporary Society</td>
<td>3</td>
<td>Contemporary Society describes and analyzes some of the key social, political and cultural aspects of American life. The theme of the course examines the tension between American ideals of individual freedom and equality, and the social and political realities of class, racial and gender inequality. The aim of the course is not to present any particular moral or political viewpoint, but to allow the student to evaluate competing moral and political claims about our social life and its future directions.</td>
</tr>
<tr>
<td>809-206</td>
<td>Women in Society: Social Institutions and Social Change</td>
<td>3</td>
<td>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.</td>
</tr>
<tr>
<td>809-207</td>
<td>Criminology</td>
<td>3</td>
<td>This course examines the relationship between crime and society. It describes and analyzes the social nature and causes of crime, the formulation, administration and enforcement of criminal laws, the prison system and treatment and rehabilitation programs in American society.</td>
</tr>
<tr>
<td>809-208</td>
<td>Contemporary Afro-American Society</td>
<td>3</td>
<td>The major theme of this course is that the Black community is a highly diversified, inter-related aggregate of people who unite into relatively cohesive structures in response to oppression, racism and patronized repression. The focus is on diversity within the Black community, economic life, occupational pursuits, earned income and business ventures. In addition, special attention is given to problems in education, family structure, political behavior and the diversity of lifestyles.</td>
</tr>
<tr>
<td>809-209</td>
<td>Women's Work/Women's Lives</td>
<td>3</td>
<td>In this course, the role of paid and non-paid work in the lives of women is examined. Using an interdisciplinary approach, specific occupational areas are analyzed from an historical, economic and sociological perspective. Current issues that impact on the women's labor force, and work performed by women-traditional and non-traditional—are presented and discussed.</td>
</tr>
<tr>
<td>809-210</td>
<td>Men: Social and Psychological Perspectives</td>
<td>3</td>
<td>This course provides an examination and analysis into the ways biology, culture and society shape American men's identity and life experiences. Topics include historical views; socialization; maleness; competitiveness and sports; violence and war; work and success; sexuality; relations with other men, women and children; health; and alternatives for men.</td>
</tr>
<tr>
<td>809-211</td>
<td>Macro-Economics</td>
<td>3</td>
<td>This introductory course describes and analyzes factors which influence the overall performance of the economic system. Supply-demand analysis, national income determination models, fiscal policy, money, financial implications, monetary policy, inflation, unemployment, international trade, economic growth, and public sector participation in economic affairs are among the topics considered. Description, analysis and critique of the economy's performance are included among various approaches to course content.</td>
</tr>
<tr>
<td>809-212</td>
<td>Micro-Economics</td>
<td>3</td>
<td>This introductory course examines economic concepts influencing the allocation of resources, production and distribution of final product in the U.S. economy. Supply-demand analysis, the implications of various market structures, determination of payment to economic resources, income distribution, and government participation in economic activity are among the topics considered. Description, analysis and critique of the economy's performance are included among various approaches to course content.</td>
</tr>
<tr>
<td>809-213</td>
<td>Comparative Economic Systems</td>
<td>3</td>
<td>This course describes and analyzes various approaches to resolution of the basic economic problem of production and distribution of economic goods and services. Classical capitalism, managed capitalism, socialism and democratic socialism are discussed. The systems are contrasted and evaluated in terms of such criteria as growth, efficiency, stability and equity. Various systems' historical development, institutional characteristics, and application to contemporary functioning economies are considered.</td>
</tr>
<tr>
<td>809-214</td>
<td>American National Government</td>
<td>3</td>
<td>This general survey course 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. Topics examined include: the U.S. Constitution, elections, interest groups, parties, mass media, congress, judiciary, the presidency and bureaucracy.</td>
</tr>
<tr>
<td>809-222</td>
<td>State and Local Government</td>
<td>3</td>
<td>American government can be understood as a system of institutions for social control only if it is examined at all three levels—national, state and local. This course addresses itself to the functioning of state and local governments and seeks to relate them and their activities to those of the federal government. Stress is placed upon behavioral characteristics of state and local governments in the total decision-making process. The importance and functioning of political parties, special interest groups, elections, legislatures, courts and executives are covered.</td>
</tr>
<tr>
<td>809-223</td>
<td>International Relations</td>
<td>3</td>
<td>This course focuses on the methods employed by nation states in interacting with each other as well as the forces influencing the nature of interaction. Attention is also given to institutions that have been erected in nation states' quest for power, peace and security. Nationalism, ideology, regional integration and trade are emphasized.</td>
</tr>
<tr>
<td>809-224</td>
<td>Government Practicum</td>
<td>2</td>
<td>This course involves political experience for students enrolled in 809-222 State and Local Government. Students are assigned as volunteers to state or local officials for ten hours per week. Discussions with instructor, student-prepared summary reports and journals are required. Prerequisites: Consent enrollment in 809-222 State and Local Government and consent of instructor.</td>
</tr>
<tr>
<td>809-225</td>
<td>Social Psychology</td>
<td>3</td>
<td>This course involves study of the individual in the social setting. Topics include interpersonal attraction, aggression and violence, sex roles, altruism, obedience, conformity, attitude change and others. Prerequisite: 809-231 Introduction to Psychology or 809-203 Introduction to Sociology.</td>
</tr>
</tbody>
</table>
809-231 Introduction to Psychology
This course involves 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 to several college transfer courses in psychology.

809-233 Developmental Psychology
In this course, the principles of human growth and behavioral development, from conception to death, are studied. The course includes methods of studying human behavior, theoretical approaches, individual differences, patterns and sequences of development, and relationships with peers and others. Prerequisite: 809-231 Introduction to Psychology.

809-235 Psychology of Personal Adjustment
This course is an in-depth study of factors contributing to the development of personality and adjustment and maladjustive behaviors. Psychological theories and concepts, such as stress and self, are explored. Tactics and strategies of adjustment, non-verbal behaviors, adjustment to changing sex roles and behavioral learning techniques are covered.

809-236 Applied Psychology
This course is based upon a broad spectrum of content in general psychology with emphasis on applying established principles to the common problems of normal adjustment, i.e. learning, modification of behavior, creative problem-solving, decision-making and social relationships. Emphasis is given to the ways people can learn to adjust to an almost constantly changing physical, social and economic environment.

809-237 Abnormal Psychology
In this course, emotional and behavioral disorders— their causes and effects on the individual, family and society—are studied. The student is exposed to types of disorder, therapy and theories of prevention. Prerequisite: 809-231 Introduction to Psychology.

809-240 Introduction to Latin America
The purpose of this course is to provide an interdisciplinary introduction to Latin America. Subject areas focus on history, politics, economics, society and culture. The course, taken as a whole, provides a broad and multifaceted exposure to several themes in particular: historical legacies which shape Latin American life; the experience of revolution and counter-revolution; various economic development strategies; contemporary social change and cultural expression. All of these themes are discussed from a variety of disciplinary perspectives, and include specific case studies as well as general overview.

809-250 Women in the Arts
This course introduces students to the contributions of women in the visual arts, music, theatre and related performing arts. It is designed to acquaint students with the theory, content, styles and issues related to women's works in various art fields, and with the criteria to assess their achievements. The course traces the constant presence of women in all the artistic media and explores women's significance in influencing how human beings perceive themselves and how the arts help to make all life more fully human.

809-260 Introduction to Philosophy
In this first course in the study of persistent philosophical problems, the student is introduced to the various fields of philosophy, philosophical methodology and the history of philosophy. The student 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.

809-261 Logic and Critical Thinking
This course presents the laws of logic, traditional and modern, governing induction and deduction, and of the common fallacies in reasoning, knowledge which is useful in all areas of work, study and life experience. Analysis of argument, language, hidden assumptions, concealed premises, is important to the consumer and the citizen. Defining and classifying concepts, evaluating evidence, drawing sound inference, and problem-solving techniques are some of the other areas to be explored.

809-262 Ethics: Theory and Application
Value systems, both traditional and current, are examined as theories and as they affect decisions regarding pornography, abortion, euthanasia, capital punishment, and social and economic justice.

809-263 East/West World Views
This course examines world views and their underlying assumptions. These world views are sometimes rooted in philosophy and sometimes in 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). It also focuses on Western rationalism and the scientific view of the cosmos. In each area, the course studies the ways in which philosophy and/or religion affects the concepts of nature, self, society and ultimate reality.

809-264 Reason in Communication
This course examines argument in familiar contexts. It emphasizes developing critical skills in comprehending, evaluating and engaging in contemporary forms of reasoning, paying special attention to the uses of argument in mass communication media.

809-265 Philosophy and the Arts
This course introduces the problems of art and aesthetics; the nature of art; the description, interpretation, and evaluation of works of art; and the nature of the aesthetic experience. Recommended prerequisite: 809-260 Introduction to Philosophy.

809-266 Energy and Society
This course emphasizes the complex inter-relationship between energy, the economy and the political process, and the environmental consequences of energy production and use. It explores sources and availability of fuels, analyzes the substantive choices among energy alternatives and their social, political and economic ramifications, and scrutinizes the structure of power in the socio-political system that constrain energy policy making and implementation decisions.

809-271 Families In Transition
The course includes the study of changes in the structure and function of the family and challenges created through the rapid transformation of family during the twentieth century. The development of an understanding of different types of contemporary family structures is emphasized.

809-272 The Nation's Health
The health care system and role of medical care in relationship to the health of Americans is explored from historical, ethical, political, economic, social and personal points of view. Issues about modern drugs, medical technology and biomedical research are considered.

809-280 Anthropology
Anthropology is the study of humans and their culture. This course is designed to introduce students to a survey of three major sub-disciplines of anthropology: physical anthropology, which explores human biology, evolution and the emergence of culture; archeology, which traces the rise of civilization; and cultural anthropology, which focuses on contemporary culture and is illustrated by the ethnographic study of a tribal society in South America.

809-352 Human Relations
This course covers basic psychological principles as applied to human relations at home, at work and in other areas of life functioning. Practical applications are stressed with an emphasis on classroom interaction and discussion.

809-356 Human Relations Survey
This course, practical human relations problems are presented with an emphasis on classroom interaction. Exercises are discussed in terms of basic psychological principles.

C O U R S E S 809-231 TO 809-356
Speech

810-101 Speech 3 credits
This course stresses the basic principles of effective public speaking and listening. The course includes an examination of the process of communication, the role of speech in self-development, the nature of meaning, and the art of persuasion. Practice in selecting speech topics, analyzing audiences, organizing speech content, improving speech delivery and critiquing speeches is provided via presentation of informative and persuasive speeches. Several graded and non-graded small group discussions sharpen additional communicative skills.

810-201 Fundamentals of Speech 3 credits
This course is an introduction to the concepts and techniques of oral reading via selected projects in the reading of children's literature, prose, poetry, drama and readers' theatre.

810-230 Introduction to Drama 3 credits
This is a beginning program in self-development in the techniques necessary to become a versatile and sensitive actor-physical and vocal expressiveness, analytical insight, and the creative synthesis of these skills in role-playing and theatrical production. The technical elements of production are emphasized for both theatre and television as the course finale is staged for television.

810-231 Intermediate Drama 3 credits
This course continues the examination of the actress, actor and theater technician roles started in 810-230 Introduction to Drama. Emphasis is placed on the director, set, sound and lighting design. Students learn through practical participation.

810-235 Technical Theater I 3 credits
Technical Theater I is an overview of all the backstage elements involved in theatrical production. The course is designed to provide basic knowledge of scenery, lighting, rigging, sound, props, costumes and stage management. Students have the opportunity to mix classroom with practical experience.

810-236 Technical Theater II 3 credits
Technical Theater II develops the skills introduced in Technical Theater I and explores the design aspects of scenery, lighting, sound and costumes for the stage. The student is encouraged to develop interest in theory, design, execution and portfolio preparation. Prerequisites: 810-235 Technical Theater I.

810-242 Public Speaking 3 credits
This course initially seeks to sharpen student awareness of speaker-audience relationships. From that theoretical base, the student is familiarized with the creative process of speech construction and organization which is applied to informative, informative and persuasive speech projects. Special emphasis is placed on stage fright, audience analysis, selection of topic, preparation and organization of content, and delivery of the speech.

810-250 Introduction to Film 3 credits
This course examines the 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.

810-260 Basic Drama Production 1 credit
This is a practicum which stresses self-development in the techniques necessary to become sensitive to all aspects of the theatrical production. There is a minimum of 20 hours required in community theatrical production during practicum. No prior acting or production experience is necessary.

Developmental Speech 3 credits
This course is designed to help the student develop and improve basic speaking skills. Developing understanding, confidence and competence in verbal and non-verbal communication is emphasized. Instruction will employ activities to help the student become an articulate communicator within the realms of social and job-related performance and problem-solving.

813-401/813-430 English 1 Second Language 3 credits
This is an open-entry, open-exit course designed for preliterate adult speakers of English as a second language. Class activities include about 80 percent oral/aural skills and 20 percent literacy skills.

813-402 Writing Lab 3 credits
Instruction in writing skills and composition is provided at varied levels and in different settings. The Adult Basic Education (ABE) Writing Lab is part of the Learning Center and provides guided assistance on basically three levels of writing: sentence writing, paragraph/theme writing, and letter writing and proofreading. Structured classes at the intermediate and precollege levels are also offered. These classes integrate writing, reading and composition skills in a comprehensive course. The precollege writing class also includes a library study skills component.

813-403/813-431 English 2 Second Language 3 credits
This is a low intermediate course for adult speakers of English as a second language. Class activities consist of 70 percent oral/aural skills and 30 percent literacy skills.

813-405/813-432 English 3 Second Language 3 credits
This is a low intermediate course for adult speakers of English as a second language. The major emphasis of the course is to improve listening, speaking, reading and writing skills. Roughly 60 percent of class time is spent in oral/aural work and 40 percent in reading and writing.

813-406/813-433 English 2 Second Language Transition 3 credits
This is the most advanced ESL class in the ESL program. It is a class for relatively advanced students before or concurrent to their entry into the regular ABE courses. Roughly 35 percent of class time is spent in oral/aural and 65 percent in reading and writing skills.

813-408 English 4 Second Language 3 credits
This is a high intermediate course for adult speakers of English as a second language. Class activities consist of 50 percent oral/aural skills and 50 percent reading and writing skills.

813-412 English Fundamentals 3 credits
This course is designed to teach basic English as a second language and literacy skills to adults with limited English-speaking ability as well as low literacy skills in their own native languages. It is preparation for or supplement to English as a Second Language. The content emphasis is survival English utilizing listening, speaking, reading and writing skills.

813-413 ILC English GED 3 credits
This course is designed for both the advanced beginner in listening and speaking skills, and for the less advanced reader and writer of English. Emphasis is on developing communication skills (listening, reading, writing, speaking, critical thinking) necessary for day-to-day survival and on allowing the student opportunities to recognize his or her own self worth.

813-414 ILC Math 3 credits
This is an open-entry, open-exit course designed to upgrade math skills for the adult learner who is assessed as functioning between the 0-8th grade levels in math. The course begins with whole numbers and finishes with fractions, decimals and percents. Students only study the material they need and do not have to begin lower than their present functioning level.

813-415 ILC Reading 3 credits
This open-entry, open-exit course offers group and individualized instruction in language arts and reading skills according to student needs and skill levels. Those reading at the 0-4th grade levels are placed in this course; placement assessment is done during registration. The curriculum covers phonics, structural analysis, reading comprehension and practical writing.
skills. Content areas are social studies, community resources, coping skills, health, money management, career development, and problem-solving.

813-416 ILC Lab
This educational setting permits any student of the ILC to work, at his/her own pace, on any ABE skill area the center offers. Some students have lab hours for math while meeting their reading needs in a structured class setting. A student may be in a GED class and attend lab for up to eight additional hours per week to gain access to study materials and teacher assistance. A student may attend lab only and pursue one or two very specific academic needs, e.g., spelling and punctuation. A final component of the lab is teacher availability to MATC program students. The lab supplements and complements our structured course offerings so that individual needs can be met when and where possible.

813-421 Basic Reading
This open-entry, open-exit and/or structured course offers group and individualized instruction in language arts and reading skills according to student needs and skill levels. Students with reading ability from 0-5th grade (level I) are recommended for this course.

813-422 ILC Disadvantaged
This course provides individualized academic support to students enrolled in vocational/technical programs. Content areas include computer literacy, math, English, composition, reading, writing and other areas in business, general education, health occupations, etc.

813-423 ILC Limited English
This course provides individualized instruction for students with limited English abilities. Some of the content areas include computer literacy, composition, math, English and vocabulary improvement.

813-424 ILC Special Needs
This course provides individualized instruction in various content areas to students with special needs. Some of the content areas include computer literacy, composition, math, English and vocabulary improvement.

813-427 Intermediate Reading Skills
This open-entry, open-exit and/or structured course offers group and individualized instruction in language arts and reading skills according to student needs and skill levels. Students with grade levels from 5-8th grade are referred for this course.

813-434/813-435 English as a Second Language Lab
ESL lab is a complement to all levels of the ESL programs. At least 80 percent of lab time is spent practicing oral/aural skills through work with cassette or guided drills.

813-436 Citizenship
This open-entry, open-exit and/or structured course offers activities and exercises for people who have a command of the English language and desire to become familiar with United States history and government. The course is primarily intended to prepare students for the examination for naturalizing citizens of the United States.

813-440 Basic Education Lab
ABE lab is a complement to all levels of the ABE program. Instruction is provided by Adult Basic Education instructors in an Instructional Learning Center concept. Content and appropriate materials are identified on an individual basis based on the need of each student.

813-441 Basic Education
This open-entry, open-exit course offers individualized and small-group instruction in all phases of basic education according to student needs and skill levels. Students follow a prescribed sequence of materials to achieve their long- and short-range goals set up with the instructors. Students may study any of the following: basic reading, math, citizenship, English as a Second Language (ESL), English, employability or everyday living skills, composition skills, GED, and career education.

813-450 Pre-College Skills
This course is designed for the adult student who lacks the basic skills in mathematics to succeed in a vocational/technical program. The course covers a rapid overview of basic math, including fractions, decimals and percents, and basic measurements, both English and metric, followed by basic application of algebra and geometry concepts. Students are provided the opportunity to drill and practice mathematical skills by using prepared computer programs in the Adult Learning Center. The course is strongly recommended for GED completers or any returning adult student who has a need to improve his/her math skills.

813-451 Basic Education Mathematics
This course covers the fundamental arithmetic skills including: whole numbers and their place value, addition, subtraction, multiplication, and division of whole numbers, and basic operations with money. This course can be in a structured and/or open classroom.

813-452 Mathematics Lab
This is an open-entry, open-exit and/or structured course designed to upgrade math skills for the adult learner who is assessed as functioning between the 0-12th grade level in math. The course includes instruction from the basic mathematical operations through basic algebra and geometry. Students only study the material they need and do not have to begin lower than their present functioning level.

813-461 Pre-GED
This open-entry, open-exit and/or structured course offers group and individualized instruction in language arts and reading skills according to student needs and skill levels. Placement testing is done upon entry to determine strong points and starting levels in pre-GED reading. Students with grade levels from 5-8th grade are recommended for enrollment in this course.

813-471 (GED) General Education Development
This is a structured general education development (GED) class with emphasis on reading comprehension in the areas of social studies, science, and classical and contemporary literature.

813-494 GED Via T.V.
The T.V. GED course consists of 34, 1/2-hour videotape programs aired on Channel 21. The program strands include: orientation and test-taking, reading, social studies, science, literature, grammar and math. There are three textbooks that accompany the program and are available for purchase at the MATC Bookstore. An instructor has telephone conferences with students once every two weeks to monitor progress. Special help sessions are offered as needed.

862-415 Career Education
This course is designed to provide career education training. Class participants individually analyze their qualifications, skills, work history, and career interests to target employment opportunities. Participants also examine specific job-seeking techniques and practice oral and written communication skills, interviewing techniques, and personal marketing skills.

862-420 Job-Seeking Skills
This is a course designed to provide career exploration and job-seeking skills training. Class participants individually analyze their qualifications, skills, work history and career interests to target employment opportunities. Participants also examine specific job-seeking techniques and practice oral and written communication skills, interviewing techniques, and personal marketing skills.

815-200 Introduction to Art History
This course involves a chronological survey of art from early cave paintings to current trends. Emphasis is placed on aesthetic and technical innovations due to changing religious, social, economic and political traditions in various countries and cultures.

815-201 Basic Design
Basic design provides involvement with the creative process, the traditional elements and principles of design, and various techniques for solving two-dimensional design problems.

815-202 Color and Design
Color and Design provides involvement with practical and theoretical color problems, while building knowledge of advanced design concepts.
815-203 Three-Dimensional Design  3 credits
This course explores the fundamental concepts of three-dimensional design through the development and construction of form and space structures ranging from the simple to the complex.

815-205 Drawing Fundamentals  3 credits
This is an introductory drawing class emphasizing sound craftsmanship and the study of basic freehand drawing skills. It includes the study of perspective; proportion, construction of solid forms, light and shade, and rendering in line and tone with a variety of media.

815-206 Cartooning  3 credits
The art of cartooning has a wide variety of applications. In addition to an historic overview, instruction is given in basic figure construction, action, expression, creating characters, selecting appropriate backgrounds and inking. Assignments cover various aspects of cartooning art and how the business functions.

815-207 Cartooning Seminar  3 credits
This course offers the student an in-depth opportunity to create an original cartoon feature from concept through finished art. Resources are provided to assist the student in marketing strategies. Prerequisite: 815-206 Cartooning, or permission of the instructor.

815-209 History of Cartooning  3 credits
Through illustrated lectures, this course presents the history of cartooning, from eighteenth-century English political cartoons to the present day. The medium is studied as art, literature and social commentary.

815-210 Art History: The Modern Era  3 credits
This course surveys the development of European and American art and architecture from the time of impressionism in the 1870s to the contemporary period.

815-219 Life Drawing  3 credits
Life Drawing is intended to introduce the student artist to drawing the figure in a variety of situations. Different drawing media are utilized for reasons of expression, detail, articulation, dramatic effect and reproducibility. Study of the human anatomy is included.

815-234 Photography  3 credits
This course features instruction in camera operation, basic darkroom developing and printing techniques. Assignments include: portraiture, spot news photos, group and action photos, the photo essay and feature photo. Students provide their own cameras and film.

815-241 Painting I  3 credits
This course is an introduction to basic painting techniques. It covers laying out the palette, preparing painting backgrounds, and the use of oil or acrylic media.

815-242 Painting II  3 credits
Emphasis in this course is on picture making, composition, personal expression in still life, landscape, figure painting, etc. It is an intermediate-level course. Prerequisite: 815-241 Painting I.

815-253 Jewelry I-Art Metal  3 credits
This course is a basic introduction in designing and fabricating jewelry. The core of the course is flat work in copper, brass, silver and casting. Some of the various processes covered are piercing, repoussé, casting, bezel setting, enameling, etc.

815-254 Jewelry II-Art Metal  3 credits
This is an advanced course for students with previous experience in basic processes who desire to develop depth in design and craftsmanship. Instruction is offered in the casting of silver and gold; fabrication in a variety of materials such as copper, brass, silver, wood and plastics. The making of settings is also covered. Prerequisite: 815-253 Jewelry I.

815-255 Printmaking  3 credits
This is an introductory course in the various graphic media, beginning with a brief history of development of the print media and continuing with demonstrations and studio work in the relief print media and an introduction to silkscreen printing. Emphasis is on the development of the single-color print. Recommended prerequisite: basic design or drawing.

815-256 Serigraphy  3 credits
Serigraphy is the name used for silk screen prints intended for the fine art market. This course emphasizes the personal vision of the artist or illustrator when creating a finished image suitable for sale to a gallery or poster outlet. Color and design and painterly techniques, as well as printmaking skills, are covered. All students are expected to complete three printed editions of fifteen.

815-290 Ceramics I  3 credits
This course is an introduction to clay as an art medium through demonstration of and experimentation with basic hand building methods. Individual involvement with the media and personal expression is encouraged from the beginning. Exploration of texture and form is emphasized. A brief introduction to the technical aspects of ceramics accompanies studio work. During the final weeks of the course, wheel throwing is introduced.

815-291 Ceramics II  3 credits
This course covers the development of basic skills in wheel throwing. After the student is able to throw six to eight-inch cylinders, form becomes the primary consideration. After the technical aspects of wheel throwing have been mastered, the student is introduced to methods of forming pitchers, bottles, bowls, platters and covered forms. Students are encouraged to introduce their own variations. Prerequisite: 815-290 Ceramics I.
## Administrative Officers

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Education Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>JOHN W. ALT</td>
<td>MATC-Reedsburg</td>
<td>B.S., University of Wisconsin–River Falls; University of Wisconsin–Platteville</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Graduate study, University of Wisconsin–Platteville; University of Wisconsin–LaCrosse; University of Wisconsin–Stout</td>
</tr>
<tr>
<td>MARIA HERNANDEZ</td>
<td>MATC-Downtown Education Center</td>
<td>B.A., University of Wisconsin–Milwaukee; M.S., University of Wisconsin–Milwaukee</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Graduate study, University of Wisconsin–Madison</td>
</tr>
<tr>
<td>LYNETTE I. HERTEL</td>
<td>MATC-Watertown</td>
<td>B.S., University of Wisconsin–Stout; M.S., University of Wisconsin–Stout</td>
</tr>
<tr>
<td>JERRY C. KEISER</td>
<td>MATC-Fort Atkinson</td>
<td>B.S., Purdue University; M.S., Purdue University</td>
</tr>
<tr>
<td></td>
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<td>Ed.D., Washington State University</td>
</tr>
<tr>
<td>MARY J. MIELKE</td>
<td>MATC-Portage</td>
<td>B.S., University of Wisconsin–Milwaukee; M.S.–University of Wisconsin–Madison</td>
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</table>

## Division: Deans, Chairpersons, and Coordinators

<table>
<thead>
<tr>
<th>Name</th>
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<tbody>
<tr>
<td>ROBERT W. AHRENS</td>
<td>Chairperson, Marketing</td>
<td>B.A., University of Northern Iowa; M.A., University of Northern Iowa</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Graduate study, University of Minnesota; Michigan State University; University of Wisconsin–Madison</td>
</tr>
<tr>
<td>KENT ANDERSON</td>
<td>Coordinator, Fire Service</td>
<td>B.S., University of Wisconsin–Platteville; M.S., University of Wisconsin–Milwaukee</td>
</tr>
<tr>
<td>EDUARDO ARANGUA</td>
<td>Dean, Alternative Learning</td>
<td>B.S., Texas A&amp;M; M.S., Corpus Christi State University</td>
</tr>
<tr>
<td>JERRY E. BUTLER</td>
<td>Chairperson, Art</td>
<td>B.S., Jackson State University, Jackson, MS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>F.A.A., Memphis Academy of Art; M.A., University of Wisconsin–Madison</td>
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<td>Ph.D., University of Wisconsin–Madison</td>
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<tr>
<td>JAMES K. EIGENFELD</td>
<td>Dean, Business</td>
<td>B.B.A., University of Wisconsin–Whitewater; M.B.A., University of Wisconsin–Whitewater</td>
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<tr>
<td></td>
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<td>M.S.Ed., University of Wisconsin–Whitewater; University of Wisconsin–Stout</td>
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## Faculty and Staff

<table>
<thead>
<tr>
<th>Name</th>
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<th>Education Details</th>
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<tbody>
<tr>
<td>JOAN S. SIMONE</td>
<td>District Director</td>
<td>B.S., Butler University, Indianapolis, IN; M.S., Indiana University, Bloomington</td>
</tr>
<tr>
<td>CARL R. BRICE</td>
<td>Assistant Director–Student Services</td>
<td>B.S., University of Wisconsin–Platteville; M.S., University of Wisconsin–Madison</td>
</tr>
<tr>
<td>EDWARD G. CLARKE</td>
<td>Assistant Director–Instructional Services</td>
<td>B.A., University of Wisconsin–Madison; M.S., University of Wisconsin–Milwaukee; University of Wisconsin–Stout</td>
</tr>
<tr>
<td>FREDERICK R. BIRTS</td>
<td>Outreach Services/Adult and Continuing</td>
<td>Education Administrator; Post-graduate study, University of Wisconsin–Milwaukee; University of Wisconsin–Madison; University of Wisconsin–Stout</td>
</tr>
<tr>
<td>BEVERLY S. NIEMEYER</td>
<td>Personnel Officer</td>
<td>B.S., University of Wisconsin–LaCrosse; M.S., University of Wisconsin–Madison; Ph.D., University of Wisconsin–Madison</td>
</tr>
<tr>
<td>CLIFFORD V. ANDREOLI</td>
<td>Registrar</td>
<td>B.S., Northern Michigan University; M.S., University of Wisconsin–Madison; Graduate study, University of Wisconsin–Madison</td>
</tr>
<tr>
<td>PETER J. VAN BRAMER</td>
<td>Admissions Administrator</td>
<td>B.S., Northwest Missouri State; M.S., University of Wisconsin–Platteville; Graduate study, University of Wisconsin–Madison; University of New Hampshire</td>
</tr>
<tr>
<td>GERALD LINDEMA</td>
<td>Financial Administrator</td>
<td>B.S., University of Wisconsin–Whitewater; B.B.A., University of Wisconsin–Madison; Graduate study, University of Wisconsin–Madison</td>
</tr>
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## Campus Administrators

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<thead>
<tr>
<th>Name</th>
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<tbody>
<tr>
<td>JOHN LALOR</td>
<td>Campus Administrator</td>
<td>A.A., Madison Area Technical College; B.S., University of Wisconsin–Stout; M.S., University of Wisconsin–Stout; Ph.D., University of Wisconsin–Madison</td>
</tr>
<tr>
<td>CLEMTUS J. FONTAINE</td>
<td>Dean, Agriculture-Agribusiness</td>
<td>B.S., University of Wisconsin–River Falls; M.S., University of Wisconsin–Madison; Graduate study, University of Wisconsin–Stout</td>
</tr>
<tr>
<td>SHARON HART</td>
<td>Dean, Technical and Industrial</td>
<td>B.S., Michigan State University; M.S., Indiana State University; Ph.D. candidate, University of Illinois, Champaign–Urbana</td>
</tr>
<tr>
<td>G. MARY HILL</td>
<td>Chairperson, Culinary Trades</td>
<td>B.S., University of Wisconsin–Stout; M.S., University of Wisconsin–Stout; Graduate study, University of Wisconsin–Madison</td>
</tr>
<tr>
<td>JAMES A. HOOD</td>
<td>Chairperson, Public Safety Services</td>
<td>A.B., Wayne State University; M.S., Michigan State University; Doctoral candidate, Michigan State University</td>
</tr>
<tr>
<td>ROLAND JOHNSON</td>
<td>Chairperson, Music</td>
<td>B.M., College of Music, Cincinnati; M.M., College of Music, Cincinnati; Doctor of Music, in honoris causa, Milton College</td>
</tr>
<tr>
<td>DONALD G. LINSTROTH</td>
<td>Campus Administrator/Chairperson, Apprenticeship</td>
<td>A.A., Gateway Technical Institute; M.S., Craftsmen–Apprenticeship; B.S., University of Wisconsin–Stout; Additional study, University of Wisconsin–Madison</td>
</tr>
<tr>
<td>ALDA PRESTON</td>
<td>Assistant Dean, Health Occupations</td>
<td>Diploma, Bethany Hospital School of Nursing, Kansas City, KS; B.S., Fort Hays State University, Hays, KS; M.A., University of Kansas–Lawrence; M.S., University of Missouri–Kansas City; Graduate studies, University of Missouri–Columbia; Hunter College, New York, NY</td>
</tr>
<tr>
<td>SARA SHERKOW</td>
<td>Dean, General Studies</td>
<td>B.S., Northwestern University; M.S., University of Wisconsin–Milwaukee; Ph.D., University of Wisconsin–Madison</td>
</tr>
</tbody>
</table>
**Faculty & Staff**

**RICHARD SHOLD**  
Public Safety Coordinator  
- B.A., University of Wisconsin–Madison  
- M.S., University of Wisconsin–Madison  
- Ed.S., University of Wisconsin–Stout

**DAVID L. SHONKILER**  
Assistant Dean, Technical and Industrial  
- B.S., Iowa State University  
- M.A., Southern Illinois University

**ABDULCADIR SIDO**  
Dean, Health Occupations  
- B.A., University of New Mexico–Albuquerque  
- M.S., University of Southern Illinois  
- Graduate study, University of Wisconsin–Madison  
- M.D., Marquette University, School of Dentistry

**MARIAN TIMMERMAN**  
Dean, Home Economics  
- B.S., University of Wisconsin–Stout  
- M.S., University of Connecticut

**JANIE WIMBERLY**  
Assistant Dean, General Studies  
- A.A., Daniel Payne University  
- M.S.W., University of Michigan

**Student Services Staff**

**RICHARD C. BADGER**  
Counselor  
- B.S., University of Wisconsin–Madison  
- M.S., University of Wisconsin–Madison

**LYNN BLISS**  
College Health  
- B.S.N., Louisiana State University–New Orleans  
- Graduate study, University of Wisconsin–Whitewater

**ELAINE WILKINSON**  
Veterans Service/Financial Aid Officer  
- A.D., Madison Area Technical College

**MICHAEL JORDAN**  
Counselor, Port Atkinson  
- B.S., University of Wisconsin–Platteville  
- M.A., University of Wisconsin–Platteville

**JOHN W. BRENEGAN**  
Athletic Director  
- B.S., University of Wisconsin–Platteville  
- M.S., Winona State College, Minnesota  
- Graduate study, University of Wisconsin–Madison

**EDMUND K. ERICKSON**  
Counselor  
- B.S., University of Wisconsin–Platteville  
- M.S., Winona State College, Minnesota

**CYNTHIA GOLDSMITH**  
Women's Career Counselor  
- B.S., Northwestern University  
- M.S., Northern Illinois University  
- Graduate study, University of Miami

**ROBERT H. GWYNNE**  
Career Planning and Assessment, Housing, GED Examiner  
- A.B., Dartmouth College  
- M.A., University of Colorado  
- Graduate study, Long Island University; Marshall University; University of Wisconsin–Madison

**RICHARD HARRIS**  
Affirmative Action/Student Service Projects Coordinator  
- B.S., University of Wisconsin–Madison  
- M.S.W., University of Illinois  
- Ph.D., University of Wisconsin–Madison

**CARL J. JENSEN**  
Financial Aid, Placement  
- B.S., Mankato State College  
- M.A., University of Northern Colorado  
- Graduate study, California State College–Long Beach and Los Angeles; University of California–Irvine and University of Southern California

**GERALD LAMERS**  
Special Needs  
- B.S., St. Norbert College  
- M.S., University of Wisconsin–Madison  
- Ph.D., University of Wisconsin–Madison

**ALAN LARSON**  
Computer Services Supervisor  
- B.S., University of Wisconsin–LaCrosse  
- Graduate study, University of Wisconsin–Madison

**H. DOUGLAS REDSTEN**  
Job Placement, Foundation and Alumni Director  
- B.S., University of Wisconsin–LaCrosse  
- M.S., University of Wisconsin–LaCrosse  
- Graduate study, University of Wisconsin–Madison

**KAREN ROBERTS**  
Student Life Administrator  
- B.S., University of Wisconsin–Madison  
- M.S., University of Wisconsin–Madison  
- Special Study, Tulane University  
- Doctoral candidate, University of Wisconsin–Madison

**WILLIAM ROWE**  
Financial Aid Supervisor  
- B.S., University of Wisconsin–LaCrosse  
- M.S., University of Wisconsin–Stout

**DELLA H. SCOTT**  
Women's Career Counselor  
- B.A., Howard University  
- M.Ed., Howard University

**Instructional Services Staff**

**J. ROBERT BURULL**  
Telecommunications Coordinator  
- B.S., University of Wisconsin  
- M.S., University of Wisconsin  
- Ph.D., University of Wisconsin

**PATRICIA CARTWRIGHT**  
Curriculum Coordinator  
- B.A., Milwaukee-Downer College (Lawrence University)
- M.A.T., University of Wisconsin–Eau Claire  
- Ph.D., University of Wisconsin–Madison  
- Graduate study, University of London; University of Wisconsin–Eau Claire

**PAUL MESKE**  
Instructional Media Specialist  
- B.A., University of Wisconsin–Eau Claire  
- M.S., University of Wisconsin–Stout

**LEE HAYDEN**  
Assistant Librarian  
- B.A., University of Wisconsin–Madison  
- M.L.S., University of Wisconsin–Madison

**JANET JEFFCOTT**  
Librarian  
- B.A., University of Wisconsin–Madison  
- M.A., University of Wisconsin–Madison  
- Graduate study, University of Wisconsin–Madison, University of Wisconsin–Stout

**Public Information Consultant**

**DEBBY THOMPSON**  
Undergraduate study, Shimer College, Waukegan, IL; University of Wisconsin–Oshkosh

**Facilities Construction Administrator**

**ROBERT P. TORKELSON**  
B.A., University of Wisconsin–Madison  
- B.A., University of Illinois–Champaign/Urbana  
- M.S., University of Illinois–Champaign/Urbana

**Building Engineer**

**BRUCE KOEHE**  
B.S.M.E., University of Missouri–Columbia  
- B.S.B.A., University of Missouri–Columbia  
- M.B.A., University of Wisconsin–LaCrosse

**Faculty**

**LOUISE ADAMS**  
Occupational Therapy Technician  
- B.S., University of Wisconsin–Madison  
- Graduate study, University of Wisconsin–Madison  
- O.T.R., American Occupational Therapy Association

**JOAN S. AGARD**  
English  
- B.A., Olivet College  
- Graduate study, Loyola University; University of Wisconsin–Madison

**KAREN L. ANDERSON**  
Science  
- B.S., University of Puget Sound, Tacoma, WA  
- M.S., Montana State University, Bozeman, MT
CORTLYN N. ALMQQUIST
Dairy Herd Management—Fort Atkinson
B.S., Iowa State University
M.S., University of Wisconsin—Madison
Ph.D., University of Wisconsin— Madison

JOHN ANDREWS
Commercial Art/Visual Communications
Freelance Illustrator and Designer
A.A., Madison Area Technical College
B.F.A., Advertising Illustration, Art Center
College of Design, Pasadena, California

FANCHON C. ARAGNO
French
B.A., Southern Methodist University
M.A., Rutgers University
Special Study, Laval University-Quebec, Institut de Touraine—France
Graduate study, University of Wisconsin—Madison

RICHARD ARMSTRONG
Chemistry
B.S., University of Wisconsin— Superior
M.S., University of Notre Dame

BARBARA ARNOLD
English
B.A., Grinnell College
M.A., University of Wisconsin—Madison

FREDERICK M. ARNOLD
Social Science
B.A., Grinnell College
M.S., Northern Illinois University
Graduate study, Northern Illinois University; University of Wisconsin—Madison

SPENCER J. ARTMAN
Microbiology
B.S., University of Wisconsin— Stevens Point
M.A., Drake University
Graduate study, Ohio State University

MICHAEL BARBER
Music
B.M., St. Norbert College
M.M., Ball State University
Post-graduate study, Ball State University; University of Wisconsin—Madison; University of Wisconsin—Stout

ALLEN BARKOFF
Biology
B.S., University of Illinois
M.A., Brown University
Graduate study, University of California; University of Wisconsin—Stout; University of Wisconsin—Madison

WM. PATRICK BARLOW
Speech and Theatre
B.A., University of Wisconsin—Madison
M.A., University of Wisconsin— Madison

JANNEKE C. BASKE
Art
A.D., Madison Area Technical College
B.A., University of Michigan
Additional studies, University of Wisconsin— Madson

JAMES R. BAUKNECHT
English
B.A., University of Wisconsin
M.A., University of Wisconsin
Ph.D., University of Wisconsin

SCOTT D. BAXTER
Printing
A.A., Madison Area Technical College
B.S., University of Wisconsin—Stout

DONALD BAYREUTHER
Accounting—Watertown
B.Ed., University of Wisconsin—Whitewater
M.S., University of Wisconsin—Superior

JAMES R. BAUKNECHT
English
B.A., University of Wisconsin
M.A., University of Wisconsin
Ph.D., University of Wisconsin

GLENN BODA
Science
B.S., University of Wisconsin—Madison
M.S., University of Wisconsin—Madison

VICKIE BOEDER
Business Education—Watertown
B.S., University of Wisconsin—Whitewater
M.S., University of Wisconsin—Whitewater

PAUL BOEGEL
Dental Hygiene—Downtown
D.D.S., Marquette University; School of Dentistry
Periodontics Certificate, U.S. Army

BARBARA BORDERS
Commercial Art/Visual Communications
B.S., University of Wisconsin—Madison
M.S., University of Wisconsin—Madison
Graduate study, University of Wisconsin— Madison

MARY JEANNE BOWEN
Clinical Dental Hygiene
B.S., Marquette University
Dental Hygiene Certificate, Marquette University

KAY M. BRADLEY
Animal Technician
A.D., Madison Area Technical College
B.S., Edgewood College

MICHAEL BRAUN
Dietetic Technician
B.S., University of Wisconsin—Green Bay
M.S., University of Wisconsin—Stout
Graduate study, University of Wisconsin— Madison; University of Wisconsin—Stout

PEGGY BREMER
Associate Degree Nursing
B.S.N., University of Wisconsin—Madison

ROBERT BRIEN
English
B.A., St. Mary’s College
M.A., Marquette University
Graduate study, University of Wisconsin— Madison

KENT R. BRIGHAM
Business Administration
B.B.A., University of Wisconsin—Madison
M.S., University of Wisconsin—Madison
Graduate and special study, University of Wisconsin—Madison; University of Wisconsin—Stout

CHARLES H. BROWN
Adult Basic Education—Downtown
B.S., University of Wisconsin—Madison
M.S., University of Wisconsin—Madison
ROBERT L. BROWN  
Wisconsin Apprenticeship System  
Journeyman Machinist/Machine Tool Builder  
Undergraduate studies, University of Wisconsin-Stevens Point; University of Wisconsin-Stout; University of Wisconsin-Madison; University of Wisconsin-Whitewater.

SUSAN BUBOLTZ  
Program Director/Medical Assistant  
B.S.N., University of Wisconsin-Madison  
M.S., University of Wisconsin-Stout

STANLEY BUREK  
Insurance  
B.S., University of Wisconsin-Madison  
M.S., University of Wisconsin-Madison

MARY BURNS  
Advisor-Information Processing  
B.S., Edgewood College  
Graduate study, University of Wisconsin-Madison; University of Wisconsin-Stout; University of Wisconsin-Eau Claire; University of Wisconsin-Stout

ROSA RIO BUSALACCHI  
Science  
B.S., Milwaukee School of Engineering  
M.S., University of Wisconsin-Madison

MARILYN CARIEN  
English  
B.S., Cornell University  
M.A., University of Wisconsin-Madison  
Ph.D., University of Wisconsin-Madison

BRIAN J. CARNEY  
Diesel and Heavy Equipment  
Industrial Management, Milwaukee School of Engineering  
Combustion Engines, Milwaukee Area Technical College  
Wisconsin Operating Engineers Apprenticeship-Journeyman  
Certificate in Training, Milwaukee School of Engineering

JAMES CARNITZ  
Machine Trades  
B.A., University of Wisconsin-Stout  
M.S., University of Wisconsin-Stout  
Graduate study, University of Wisconsin-Madison; University of Wisconsin-Stout

GREGORY CHERMAK  
Marketing  
A.D., Madison Area Technical College  
B.S., University of Wisconsin-Madison  
M.S., University of Wisconsin-Madison  
Graduate study, University of Wisconsin-Madison

MICHAEL CHOPIN  
Automotive  
B.S., University of Wisconsin-Stout  
Graduate study, University of Wisconsin-Stout  
Special Study, General Motors; Milwaukee School of Engineering

JANICE R. CHRISTENSEN  
Business Administration/Businnes Machines  
A.D., University of Cincinnati  
B.S., University of Cincinnati  
M.B.A., Indiana University  
Graduate study, University of Wisconsin-Stout; University of Wisconsin-Madison; University of Wisconsin-Eau Claire

MONICA CHRISTOPHERSON  
English  
B.A., Viterbo College  
M.S., University of Wisconsin-River Falls

JOAN G. CHYTRACEK  
Associate Degree Nursing  
B.S.N., Hamline University, St. Paul, MN  
Psychiatric Nursing Certificate, University of Minnesota  
M.S.E., University of Wisconsin-Madison

GLENN COBBS  
Public Safety/RMS-Apprenticeship Center  
Undergraduate study, University of Wisconsin-Milwaukee; University of Wisconsin-Stout

WILLIAM COLBY  
History  
B.A., Pomona College  
M.S., University of Wisconsin-Madison

GEORGE COOPER  
Psychology  
B.S., University of Wisconsin-Madison  
M.A., West Virginia University  
Graduate study, Marquette Medical School

ROLLIE COX  
Office Technology  
B.A., University of Wisconsin-Madison  
M.S., University of Wisconsin-Madison  
Doctoral candidate, University of Wisconsin-Madison

MARK COYNE  
Emergency Medical Services-Apprenticeship Center  
A.A., Miami-Dade Community College, FL  
Diploma, Jackson Memorial Hospital School of Nursing, Miami, FL  
A.S.-Nursing, Miami-Dade Community College

CURT CREAGER  
Sociology  
B.S., University of Wisconsin-Oshkosh  
M.S., Florida State University

DAVID DEAN  
Data Processing, Programming  
B.B.A., University of Wisconsin-Whitewater  
Special study, University of Wisconsin-Madison; University of Wisconsin-Stout

MARIE-LOUISE DENYS  
Associate Degree Nursing  
B.S., Cornell University  
M.S., University of Wisconsin-Madison  
Graduate and special study, University of Wisconsin-Madison

ELEANOR DERGE, R.N., C.M.A.  
Medical Assisting  
R.N., Madison General Hospital  
B.S., College of St. Francis  
M.S., University of Wisconsin-Stout

PAUL DE ROSE  
Science  
B.S., University of Wisconsin-Madison  
Graduate study, University of Wisconsin-Madison

MILTON DIEHL  
Accounting  
B.S., University of Wisconsin-Madison  
M.B.A., University of Iowa  
Graduate study, University of Wisconsin-Whitewater

WILBERTA DONOVAN  
Psychology  
B.S., University of Oklahoma  
M.S., Iowa State University  
Ph.D., Iowa State University

THOMAS E. DOYLE  
Electronics  
B.S., University of Wisconsin-Madison  
M.S.-Curriculum/Instruction; M.S.-Computer Science, University of Wisconsin-Madison

MARY JOAN DRA XLER  
Office Technology  
B.S., College of St. Benedict, St. Joseph, MN  
M.S., University of Wisconsin-Whitewater  
Graduate study, University of Wisconsin-Stout; Edgewood College; University of Wisconsin-Madison; University of Wisconsin-Whitewater

RONALD DUNHAM  
Welding  
B.S., University of Wisconsin-Stout  
M.S., University of Wisconsin-Stout

MARK DURKEE  
Mechanical Design  
B.S., University of Wisconsin-Stout  
Graduate study, University of Wisconsin-Stout

MICHAEL A. DYER  
Psychology  
A.A., Butler County Junior College, Kansas  
B.Ed., Washburn University, Topeka, Kansas  
M.S., University of Wisconsin-Milwaukee

BRUCE ELLINGER  
Visual Communications  
B.S., University of Wisconsin-Madison  
Graduate study, University of Wisconsin-Madison
GRACIELLEN ENDY
Associate Degree Nursing--Reedsburg
R.N., St. Luke's Hospital, New York, NY
B.S., Central Connecticut State University, New Britain, CT
M.S.N., University of Connecticut, Storrs, CT

ROBERT ESSE
Adult Basic Education
B.A., University of Wisconsin--Madison
Graduate study, University of Wisconsin--Madison

JOHN FAHEY
Barber/Cosmetology
Diploma, Lincoln Barber College, Rockford, IL
Diploma, Madison Area Technical College
Additional study, University of Wisconsin--Stout; University of Wisconsin--Madison
Governor-appointed to the State Barber and Cosmetology Examining Board

SHARON FALLON
Alternative Learning
B.A., St. Norbert College
Graduate studies, University of Wisconsin--Madison

WILLIAM D. FEENY
Commercial Art/Visional Communications
B.A.—Fine Arts, Adelphi University, New York
M.A.—Film/TV, University of Wisconsin--Madison
Special study, School of Visual Arts, New York; San Bernardino Valley College, California

PATRICK G. PLANAGAN
Interior Design
B.S., University of Wisconsin--Madison
M.S., University of Wisconsin--Madison

KEITH FLEMING
Radiography
Madison General Hospital
North Eastern University, University of Wisconsin--Stout

ROBERT E. FOSS
Accounting
B.S., University of Maine—Orono
M.B.A., University of Wisconsin--Madison
M.S., University of Wisconsin--Madison

JACK FRANDY
Mathematics
B.S., University of Wisconsin--Superior
M.E., University of Wisconsin--Superior
M.S., University of Wisconsin--Madison
Graduate study, University of Wisconsin--Madison

JAMES C. FRESE
Culinary Trades
Diploma—Quantity Foods Preparation and Service, Madison Area Technical College
Special study, University of Wisconsin--Madison; University of Wisconsin--Stout

JOHN FRITSCH
Commercial Art/Visional Communications
B.S., University of Wisconsin--Madison
M.A., New York University
M.F.A., University of Wisconsin--Madison

GARY GADE
Graphic Arts
Diploma—Printer, Madison Area Technical College
B.S., University of Wisconsin--Stout
M.S., University of Wisconsin--Stout
Graduate study, University of Wisconsin--Stout; University of Wisconsin--Platteville

VICTOR GAGLIANO
Biology
B.S., University of Wisconsin--Madison
M.S., University of Wisconsin--Madison
Ph.D., University of Wisconsin--Madison

RAYMOND GARCIA
Mathematics
Ed.B., University of Hawaii
M.A., University of Hawaii
M.A., University of Wisconsin--Madison
Graduate study, University of Hawaii; University of Wisconsin--Madison

CHRISTOPHER GARGAN
Art
B.S., University of Wisconsin--Madison
M.F.A., University of Wisconsin--Madison

ROBERTA LYNN GASSERE
Special Needs/Truax Learning Center
B.S., University of Wisconsin–Oshkosh
M.S., University of Wisconsin–Madison
Ed.S., University of Wisconsin–Stout

FREDERICK W. GEISLER
Marketing
B.A., St. Cloud State University, MN
M.B.A., Edgewood College

MERLIN GERBER
Tool and Die/Machinist
Wisconsin Apprenticeship—Tool and Die
Undergraduate study, University of Wisconsin–Stout; University of Wisconsin–Madison

M. VIRGINIA GIBSON
English
B.A., Rosary College—River Forest, Illinois
M.A., Catholic University of America, Washington, D.C.
Ph.D., University of Chicago

JOHN R. GILSDORF
Mechanical Design
B.S., University of Wisconsin–Stout
M.S., University of Wisconsin–Stout
Graduate study, University of Wisconsin–Platteville
Ed.S., University of Wisconsin–Stout

GAY GOLDBEIN
Program Director, Medical Laboratory Technician
B.S., Pennsylvania State University
M.S., University of Wisconsin–Stout
Special study, George Washington University

ROBERT GRAY
Social Science
A.A., St. Joseph's Calumet College
B.A., St. Joseph's Calumet College
M.S., DePaul University
Ph.D., California Coast University

MARGARET M. GREENO
Accounting/Finance
B.A., University of Wisconsin–Madison
M.S., University of Wisconsin–Madison

JIM GRENZOW
Architectural Drafting
B.S., University of Wisconsin–Platteville
M.S., University of Wisconsin–Platteville
Graduate study, University of Wisconsin–Madison; University of Wisconsin–Platteville

DOUGLAS GRIESBACH
Marketing
B.B.A., University of Wisconsin–Oshkosh
Graduate study, University of Wisconsin–Oshkosh; University of Wisconsin–Madison; St. Mary's College, Minneapolis, MN

ALLEN GRIFFITHS
Diesel and Heavy Equipment Mechanics
A.A.S., Gateway Technical College
Special study, University of Wisconsin–Stout; University of Wisconsin–Madison; University of Wisconsin–Platteville; Chicago State University

CYNTHIA GROVER
Surgical Technician
B.S., University of Wisconsin–Stevens Point
B.S., University of Wisconsin–Madison

PATRICIA HANSEN
Real Estate
B.S., University of Wisconsin–Madison
Graduate study, University of Wisconsin–Stout

SALLY HANSEN
English
B.A., Wayne State University, Detroit
M.A.; University of Wisconsin–Madison
Graduate study, University of Wisconsin–Madison

LYLE HANSON
Science
B.S.E.E., University of Wisconsin–Madison
Graduate study, University of Wisconsin–Madison

KATHERINE HARDING
Office Technology, Medical Secretary and Transcriptionist
B.S., Edgewood College
M.S., University of Wisconsin–Madison

JAMES HARPER
Police Science
A.S., Madison Area Technical College
B.S., San Diego State University
M.S., San Diego State University

BARBARA HART
Office Technology—Portage
B.S., Southwest Missouri State University, Springfield, MO
M.S.T., University of Wisconsin–Whitewater
Graduate study, University of Wisconsin–Stout; University of Wisconsin—LaCrosse

WILLIAM HAUSLER
Science
B.S., Denison University, Granville, OH
M.S., University of Wisconsin–Madison

197
JOANN J. HAYES
Commercial Art
B.S., University of Wisconsin-Madison
M.F.A., University of Wisconsin-Madison
Graduate study, University of Wisconsin-Madison; University of Wisconsin-Stout

PAM HAYES
Data Processing
A.D., Madison Area Technical College
B.S., Northern Illinois University
M.S., Northern Illinois University

SHARON HAYES
Associate Degree Nursing
B.S.N., University of Utah
M.S.N., University of Wisconsin-Madison
Pediatric Nurse Practitioner, University of Wisconsin-Madison

DONALD J. HEEREN
Photography
B.S., University of Wisconsin-Madison
Special study, Germann School of Photography, New York; University of Colorado, Aianoia State College; Center of the Eye, Aspen, CO

ROBERT G. HEIMERL
Electronics
A.O., Madison Area Technical College
Diploma, RCA Institute

EDWARD A. HELLEGERS
Economics/Social Science
B.A., Montclair State College
M.A., University of Pennsylvania
Graduate study, Germann School of Photography, New York; University of Colorado, Aianoia State College; Center of the Eye, Aspen, CO

RICHARD HELLER
Public Safety
A.D., Madison Area Technical College
Special study, Lakeshore Technical College
Certified Hazardous Materials Technician, Environmental Protection Agency

JOHN E. HENDRICKSON
Respiratory Therapy
A.A.S., Milwaukee Area Technical College
B.S., University of Wisconsin-Madison
M.S., University of Wisconsin-Madison

ROGER HERIAN
Drama/Communications/Speech
B.S., University of Wisconsin-Madison
M.A., University of Wisconsin-Madison
Graduate study, University of Wisconsin-Madison

THURMAN D. HESSE
Welding
B.S., University of Wisconsin-Platteville
M.S., University of Wisconsin-Stout
Graduate study, University of Wisconsin-Madison

STEPHEN HILL
Machine Trades
B.S., University of Wisconsin-Stout
M.S., University of Wisconsin-Stout
Graduate study, University of Wisconsin-Platteville; University of Wisconsin-Stout

CHARLES HIMSSEL
Fire Safety—Fire Center
B.S., University of Wisconsin-Platteville

GLEN HINZ
Pharmacy
Undergraduate study, Carroll College, Waukesha, WI
B.S.—Pharmacy, University of Wisconsin-Madison
Graduate study, University of Wisconsin-Madison; University of Wisconsin-Stout; University of Idaho, Moscow, ID

DENNIS M. HOEGER
History/Physical Education
B.A., University of Wisconsin-Eau Claire
M.A., Colorado State College
Graduate study, University of Wisconsin-Madison; University of Utah

GLENN HOJEM
Respiratory Therapy
B.S., Southern Illinois University
M.A., Central Illinois University

CAROL HOLMES
Occupational Therapy
B.S. University of Illinois
M.S., University of Wisconsin-Madison
O.T.R., American Occupational Therapy Association

RICHARD HOLMES
CPR
B.S., University of Wisconsin-Madison
M.S., University of Wisconsin-Madison

LOIS HORSMAN
Practical Nursing
R.N., Mounds-Midway School of Nursing, St. Paul, MN
B.S.N., DePaul University
M.S., University of Wisconsin-Madison
Graduate study, University of Wisconsin-Stout; University of Wisconsin-Madison

NORA CAULINE HOWELL
English as a Second Language
B.A., Meredith College
M.A., University of Wisconsin-Madison

TERRY LEE HUMSTON
Math/Physical Learning Center
B.S., Mankato State University, Mankato, MN

BARBARA HUNDT
Dietetic Technician
B.S., Viterbo College, LaCrosse
M.S., University of Wisconsin-Stout
Ed.S., University of Wisconsin-Stout
Graduate study, University of Wisconsin-Stout
Additional study, Madison Area Technical College

WILLIAM F. HUNTSMAN
Chemistry
B.S., Ohio University
Graduate study, University of Wisconsin-Madison

ROBERT HURST
Gourmet Foods
Chef Diploma, Washburn Trade, Chicago
Certificate XVI Corps, Food Service School
Hilton Certificate of Completion, Conrad Hilton Hotel

PHILLIP HUTCHINSON
Mathematics
B.S., University of Wisconsin-Platteville
M.S., University of Wisconsin-Stout
Graduate study, University of Wisconsin-Madison

MICHAEL D. IRWIN
Journalism/Alternative Agriculture
B.S., University of Wisconsin-Whitewater
M.A., University of Wisconsin-Madison
Ph.D. candidate, University of Wisconsin-Madison

PATRICIA IVYERSON
Office Technology
B.S., Notre Dame College, Cleveland, Ohio
M.S., University of Wisconsin-Madison

JEAN JACOB
Nursing—Watertown
B.S.N., University of Wisconsin-Madison
M.S., University of Wisconsin-Madison

KAREN JAEHRLING
Psychology/Social Studies—Watertown
B.Ed., University of Wisconsin-Whitewater
Graduate study, University of Wisconsin-Madison

DENNIS D. JAMES
Industrial Maintenance
B.S.M.E., University of Wisconsin-Madison
M.B.A., Cardinal Stritch College, Milwaukee

MELVIN A. JENSEN
Electronics
B.S., Milwaukee School of Engineering
Graduate study, Golden Gate University
Additional study, University of Alabama-Huntsville; IBM; ITT (NASA); Bunker Ramo (USN); Boeing (USAF); Four Phase Systems, Fairchild Test Systems

MARGARET L. JENSEN
Medical Laboratory Technician/Microbiology
B.S., University of Wisconsin-Whitewater
Graduate study, University of Wisconsin-Whitewater; University of Wisconsin-Madison

DONALD E. JOHNSON
Commercial Art/Visual Communications
B.A., University of Iowa
M.A., University of Iowa
Graduate study, Iowa State University; University of Northern Iowa; University of Wisconsin-Madison; University of Amsterdam

GARY JOHNSON
Anatomy and Physiology
B.S., University of Wisconsin-Madison
M.S., University of Wisconsin-Madison

PHYLIS JOHNSON
English
B.A., University of Wisconsin-Madison
M.S., University of Wisconsin-Madison

ROBERT R. JOHNSON
Electronics Technology
B.S., Bradley University
M.S., Bradley University
Ed.S., University of Wisconsin-Stout
FACULTY & STAFF

VICTOR R. JOHNSON, JR.
Science
B.S., University of Wisconsin-Madison
M.S., University of Hawaii
Ph.D., University of Hawaii

JAMES JOHNSTON
Psychology
B.S., University of Wisconsin-Madison
Graduate study, University of Wisconsin-Madison

JUDY ANN JONES
Mathematics
B.A., Southern Illinois University
M.S., University of Wisconsin-Madison

FRANCIS JUCKEM
Electronics
Diploma, Madison Area Technical College
B.S., University of Wisconsin-Stout

VALERIE KAMMERER
Industrial Technology
A.D., Madison Area Technical College
B.S., University of Wisconsin-Madison

G. LEE KANTIN
Accounting
B.B.A., University of Wisconsin-Oshkosh
M.S., University of Wisconsin-Madison
Graduate study, University of Wisconsin-Madison

ROSEMARY A. KENNY
English and Communications
B.S., College of St. Rose, Albany, New York
M.A., University of Notre Dame
Ph.D., University of Wisconsin-Madison

MARK KERN
Science/Physics
B.S.Ed., University of Wisconsin-Whitewater
Graduate study, University of Wisconsin-Madison; University of Wisconsin-Whitewater

JILL KERTTULA
Commercial Art
Professional Graphic Designer
A.A., Madison Area Technical College
Undergraduate study, Minneapolis College of Art and Design

IRENE KILCOYNE
Business-Marketing
B.S., University of Cincinnati
M.S., University of Wisconsin-Madison
Graduate study, University of Wisconsin-Stout; University of Wisconsin-Madison; University of Alaska-Fairbanks

WILLIAM KILGOUR
American Institutions
B.S., University of Wisconsin-Madison
M.T.A., University of Wisconsin-Whitewater
Graduate study, University of Wisconsin-Madison; University of Wisconsin-Stout; University of Wisconsin-Oshkosh

BEVERLY KLEIN
Microcomputing and Data Entry
B.S.Ed., University of Wisconsin-Whitewater
M.S.T., University of Wisconsin-Whitewater
Graduate study, University of Wisconsin-Whitewater; University of Wisconsin-Madison; University of Wisconsin-Stout

IRWIN KLIBANER
Sociology
B.A., City College of New York
M.A., University of Wisconsin-Madison
Ph.D., University of Wisconsin-Madison

JAMES KNUDSON
Real Estate
B.S., University of Wisconsin-Madison
Additional study, Chicago YMCA Community College

KATHLEEN KOEGEL
Associate Degree Nursing
B.S., University of Wisconsin-Madison
B.S.N., University of Wisconsin-Madison
M.S., University of Wisconsin-Madison

RODNEY KOHLHEPP
Auto Body
B.S., University of Wisconsin-River Falls

NOLAN KOLLATH
Electronics-Waterdown
B.S., Illinois State University

LYNN KONKEL
Optometric Technician
Diploma, Lakeshore Technical Institute, Cleveland, Oh
A.D., Madison Area Technical College
B.S., University of Wisconsin-Stout

KENNETH L. KOWALSKI
Political Science
B.A., University of Illinois-Champaign
M.A., University of Wisconsin-Madison
Graduate study, University of Wisconsin-Madison

HELEN KRUSE
Associate Degree Nursing
B.S.N., University of Wisconsin-Madison
M.S.N., University of Wisconsin-Madison

JUDITH KUHNE
Accounting-Waterdown
A.D., Madison Area Technical College
B.A., University of Northern Iowa

RUSSELL KUMAI
Mathematics
B.S., Illinois Institute of Technology
M.S., University of Wisconsin-Madison

MAE J. LAATSCH
Marketing
B.A., University of Northern Iowa
M.A., University of Northern Colorado
Special study, University of Wisconsin-Madison; University of Wisconsin-Stout

JOHN LAMPE
Architectural Technology
B.S., University of Wisconsin-Platteville

KATHLEEN LARSON
Associate Degree Nursing
R.N., St. Joseph's School of Nursing
B.S.N., University of Wisconsin-Madison
M.S.N., Ohio State University
Additional study, University of Wisconsin-Madison

LLOYD O. LARSON
Communications
B.A., San Francisco State
M.A., University of Northern Colorado
Graduate study, University of Wisconsin-Madison

PATRICK LEARY
Culinary Trades
Dunwoody Baker School
Wilton School of Cake Decorating
Madison Restaurant Institute
Special study, University of Wisconsin-Stout;
University of Wisconsin-Madison

SYLVIA LEE
Associate Degree Nursing
B.S., Marquette University
M.S., University of Wisconsin-Madison

ALFRED P. LEHNEN
Mathematics
B.S., Purdue University
M.S., University of Wisconsin-Madison
Ph.D., University of Wisconsin-Madison

NORMAN LENBURG
Photography/Visual Communications
B.S., University of Wisconsin-Madison
Graduate study, University of Wisconsin-Madison
Special study, Eastman Kodak Education Centers, Rochester, NY and Oak Brook, IL,
Wisconsin International School of Photography, Mount Prospect, IL

ROSALIND LEVIN
Reading Study Skills
B.S., University of Wisconsin-Madison
M.S., University of Wisconsin-Madison
Graduate study, University of Wisconsin-Madison; University of Wisconsin-Stout

JEAN LIND-BRENKMAN
English
B.A., University of Northern Iowa, Cedar Falls
M.A., University of Iowa, Iowa City
Ph.D., University of Iowa, Iowa City

ELIZABETH LINDNER
Associate Degree Nursing-Fort Atkinson
B.S.N., University of Wisconsin-Madison
M.S.N., University of Wisconsin-Madison
Ph.D., University of Wisconsin-Madison

SANDRA LOMAN
History
B.A., Whitman College
M.A., University of Colorado
Additional study, University of Wisconsin-Madison

JOHN LOMBARDO
Electronics Technology
A.A.S., State University of New York-Faringsdale
B.S., Long Island University
Graduate study, University of Maryland-College Park; University of Wisconsin-Madison

EUGENE LOOMANS
Mathematics
B.A., Central College, Pella, Iowa
M.S., Western Washington State College
WILLIAM R. LORENZ
Air Conditioning and Burner Servicing—Columbia Correctional Institute, Portage
A.D., Madison Area Technical College
additional study, Madison Area Technical College; Moraine Park Technical College; Beaver Dam
Maintenance Mechanic III/HVAC Specialist

DOUGLAS MARSHALL
Farm Training—Reedsburg
B.S., University of Wisconsin—Madison
M.S., South Dakota State University

MARY LOU MASIK
Dental Auxiliaries
Dental Hygiene Diploma, Marquette University
B.S., Marquette University
M.S., University of Wisconsin—Madison
Special study, Marquette University; University of Wisconsin—Stout

SHERRY MASTERS
Mathematics
B.S., University of Wisconsin—Madison
M.S., University of Wisconsin—Madison

CARSTON S. MCKAY
Social Science
B.A., Western Washington State College
B.S., University of Wisconsin—Madison
M.S.S.W., University of Wisconsin—Madison
Ph.D., University of Wisconsin—Madison

JOY A. McMillan
Microbiology / Biotechnology Laboratory Technician
B.A., Coe College
M.S., University of Wisconsin—Madison
Ph.D., University of Wisconsin—Madison

ARDYCE C. McMillen
Associate Degree Nursing—Reedsburg
B.S.N., University of Wisconsin—Madison
M.S.N., Northern Illinois University

DONALD McNICHOL
Culinary Trades
Wisconsin Restaurant Institute, Madison Area Technical College
Special study, University of Wisconsin—Stout

STEVEN MEDALL
Psychology
B.A., California State University—Los Angeles
M.A., Humboldt State University, California

LAURENCE MIECHER
Automotive Mechanics
B.S., University of Wisconsin—Stout
M.S., University of Wisconsin—Stout
Certified General Automobile Mechanic, National Institute for Automotive Service Excellence; Certified Automotive Electronics Technician, Ford Motor Company;
Member, Board of Directors, National Association of College Automotive Teachers; Evaluation Team Member, National Automotive Technician’s Education Foundation

PAUL MEISTER
Automotive Mechanics
B.S., University of Wisconsin—Stout
M.S., University of Wisconsin—Stout
Graduate study, University of Wisconsin—Platteville

ROBERTA MEYER
Commercial Art
B.A., Alverno College, Milwaukee
M.A., Pius XII Institute, Florence, Italy
M.F.A., Art Institute of Chicago
Graduate study, University of New Mexico

JAMES MILLER
Accounting
B.A., Yale College
M.S., Western Michigan University

JOHN S. MILLER, JR.
Automotive
A.D., Madison Area Technical College
B.S., University of Wisconsin—Whitewater
M.S., University of Wisconsin—Stout

STEVEN MISHLER
Machine Trades
Diploma, Moraine Park Technical College
Wisconsin Apprenticeship—Journeyman Tool and Die Maker
B.S., University of Wisconsin—Stout
Graduate study, University of Wisconsin—Stout

JOHN MOCHON
Erector—Oakville
B.S., University of Wisconsin—Madison

CHARLOTTE MIURA
English as a Second Language/Downtown Education Center
B.A., Hood College, Frederick, MD
M.A., Columbia University, New York, NY

CLIFFORD MOLDENHAUER
Mathematics—Watertown
B.S., University of Wisconsin—La Crosse

REGINALD MOODY
English
B.A., Emory University, Atlanta, GA
M.A., Emory University

JAMES MOORE
Mathematics
B.S., University of Wisconsin—Madison
M.S., University of Wisconsin—Madison
Graduate study, University of Wisconsin—Madison

RONALD MORELLO
Machine Tool
Wisconsin Apprenticeship—Mechanist
Journeyman Toolmaker
Undergraduate study, University of Wisconsin—Oshkosh; University of Wisconsin—Stout; University of Wisconsin—Milwaukee

KAREN MUMFORD
Practical Nursing
B.S., University of Wisconsin—Madison
M.S., University of Wisconsin—Stout
M.S.N., University of Wisconsin—Madison

CRAIG NAUMAN
Social Science
B.A., Santa Monica College
B.A., Florida State University
M.A., University of Wisconsin—Madison
Ph.D., University of Wisconsin—Madison

JEANETTE M. NELSON
Practical Nursing, Fort Atkinson
R.N., Jamestown College, North Dakota
B.S.N., Jamestown College
M.S., University of Wisconsin—Whitewater
M.S.N., University of Wisconsin—Milwaukee
Graduate study, University of Wisconsin—Madison; University of Wisconsin—Stout

ERIC NESHEIM
Commercial Art
B.S., Ball State University, Indiana

DEBORAH NEWSOME
Public Safety
B.A., DePauw College
M.A., North Carolina A. & T. State University
Ph.D., University of Wisconsin—Madison

JOHN D. OCHALLA
Mathematics
B.S., University of Wisconsin—Madison
Graduate study, University of San Francisco; Colorado State University; University of Wisconsin—Madison

CHARLENE OHSNAD
Office Technology
B.B.A., University of Wisconsin—Madison
M.B.A., candidate, University of Wisconsin—Madison
Graduate study, University of Wisconsin—Whitewater; University of Wisconsin—Stout

DONALD OLSON
Wood Technology
B.S., University of Wisconsin—Stout
M.A.T., University of Wisconsin—Platteville
Graduate study, University of Wisconsin—Madison
JOSEPH POWELL
Adult Basic Education
B.A., Carthage College, Kenosha
M.S., University of Wisconsin-Stout
Graduate study, University of Wisconsin-Madison

WILLIAM A. PADLEY, CPA
Accounting
B.S., Oral Roberts University
J.D., Oral Roberts University

CHRIS PAGE
Social Science/Trauma Learning Center
B.S., University of Wisconsin-Madison

CATHERINE PAWELSKI
Office Technology
B.S., Edgewood College
M.S., Catholic University of America
Graduate study, University of Wisconsin-Madison; University of Wisconsin-Eau Claire; University of North Dakota; University of Colorado

MARLINE PEARSON
Social Science
B.A., Northern Illinois University
M.A., University of Wisconsin-Madison

ALAN E. PENN
Psychology
B.A., University of Buffalo, New York
M.S., University of Wisconsin-Stout

JEFFREY PERONTO
Music
B.M., University of Wisconsin-Madison

DAVID C. PETERSON
Accounting
B.B.A., University of Wisconsin-Eau Claire
M.B.A., University of Wisconsin-Madison

ROBERT J. PIACENZA
Marketing
B.S., Bradley University
M.S., Northern Illinois University
Graduate study, University of Wisconsin-Madison; University of Wisconsin-Stout; University of Wisconsin-Whitewater; Colorado State University, Fort Collins, CO

KATHLEEN WINTERS PLEHN
Practical Nursing
B.S.N., Marquette University
M.S.N., University of Pennsylvania
Certified Nurse Practitioner, Specialty in Health Care of Women

EDWARD POWELL
Apprenticeship-Sleamfitting
B.A., Southern Illinois University, Carbondale
Graduate study, Southern Illinois University
Journeyman Steamfitter

JOSEPH POWELL
Electronics
B.A., Oberlin College
M.S., Wright State University
M.A., University of Wisconsin-Madison
M.S., University of Wisconsin-Madison
Doctoral Dissertation, University of Wisconsin-Madison

ROBERT L. PRIESTER
Supervisory Management Technician
B.S., University of Wisconsin-La Crosse
Graduate study, University of Wisconsin-Stout; University of Wisconsin-Madison

JOANNE QUINT
Accounting
B.S., Edgewood College
M.S. candidate, University of Wisconsin-Stout
Graduate study, University of Wisconsin-Stout

NEAL RAGATZ
Automotive Technology
B.S., University of Wisconsin-Stout
Graduate study, University of Wisconsin-Stout;
University of Wisconsin-Platteville;
University of Wisconsin-Madison

SHARON H. RAIMONDO
Dental Auxiliaries
B.S., Dental Hygiene, Marquette University
M.S., University of Wisconsin-Stout
Graduate study, University of Wisconsin-Stout;
University of Wisconsin-Platteville

KATHLEEN RASCHKE
Child Care
B.S., St. Peters College, New Jersey
M.Ed., Erikson Institute of Early Childhood, IL

KAREN REDFIELD
Alternative Learning
B.A., SUC, Geneseo, NY
M.A., SUNY, Binghamton, NY
Graduate study, University of Wisconsin-Madison

JAMES J. REININGER
Barber/Cosmetologist
University of Wisconsin-Platteville
Eau Claire Technical Institute
University of Wisconsin-Stout

JAMES REYZER
Accounting
B.S., University of Illinois
M.S., Northern Illinois University
Additional study, University of Wisconsin-Madison

MONDEST RICHARDS
Data Processing
B.S., University of Wisconsin-Madison

MARTHA REINEHART
Associate Degree Nursing-Fort Atkinson
B.A., North Central College, Naperville, IL
B.S.N., University of Wisconsin-Madison
M.S., University of Wisconsin-Madison

DONELL G. ROGNESS
Associate Degree Nursing
B.S.N., University of Wisconsin-Madison
M.S., University of Wisconsin-Madison

KENNETH ROH
Small Engine and Chassis Mechanics
Diploma, Madison Area Technical College
Undergraduate study, University of Wisconsin-Stout

MARY ROOT
Associate Degree Nursing
R.N., Methodist Hospital, Madison
B.S.N., University of Wisconsin-Madison
M.S., University of Wisconsin
M.S.N., Medical College of Wisconsin, Milwaukee

JAMES ROSEBERRY
Economics
A.B., University of California-Berkeley
M.A., University of Wisconsin-Madison

JOHN ROSENBERG
Mathematics
B.S., University of Nebraska
M.A., University of Wisconsin-Madison

GAYL RYAN
Dental Auxiliaries
Graduate study, University of Wisconsin-Madison; University of Wisconsin-Stout

THOMAS J. RYAN
Accounting
B.S., University of Wisconsin-Eau Claire
M.S.T., University of Wisconsin-Eau Claire
M.S., University of Wisconsin-Whitewater

JOHN B. SAGE
Auto Mechanics-Watertown
B.S., University of Wisconsin-Stout
M.A., Ball State University
Ed.S., University of Wisconsin-Stout

LAWRENCE SAGER
Marketing/Real Estate
B.S., University of Illinois
M.S., University of Illinois
Graduate study, University of Wisconsin-Madison

DANIEL SANDWICK
Profile
B.S.—Dairy Science, University of Wisconsin-Madison
M.S.—Adult Vocational Education, University of Wisconsin-Platteville

WANDA L. SAWYER
Practical Nursing
B.S.N., Marquette University
M.S.N., Medical College of Wisconsin

ANNE W. SCHACHERL
Business Law
B.S., Carroll College, Waukesha
J.D., University of Wisconsin-Madison

JEROME SCHAFFER
Diesel and Heavy Equipment Mechanics
B.S., Mankato State College, MN

WILLIAM SCHALLERT
Data Processing
B.S., University of Wisconsin-Madison
M.A., Case Western Reserve University, Ohio
Graduate study, University of Wisconsin-Madison

LORE JO SCHEL
Interior Design
A.A., University of Wisconsin-Waukesha
B.A., Mount Mary College, Milwaukee

Graduate study, University of Wisconsin-Madison

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DOUGLAS H. SCHEWE
Reading, Study Skills
B.S.—Psychology, University of Wisconsin—Madison
M.S.—Journalism-Advertising; M.S.—Reading, University of Wisconsin—Madison
Certification, Insurance Institute of America
Graduate study, Edgewood College, Madison

JOAN SCHILLING
Associate Degree Nursing—Watertown
B.S., Western Michigan University, Kalamazoo
M.S.N., Wayne State University, Detroit, MI

DONALD J. SCHINKER
Automotive Technology
Diploma, Madison Area Technical College
B.S., University of Wisconsin—Madison
Graduate study, University of Chicago
Additional training, General Motors; Ford Motor Company; Chrysler Motor Company
A.S.E. Certified

STUART SCHLOUGH
Agriculture
B.S., Madison Area Technical College
M.S., University of Wisconsin—Oshkosh

RICHARD SCHMIED
Emergency Medical Training—Apprenticeship Center
B.S., University of Wisconsin—Madison
M.S., University of Wisconsin—Madison

MICKIE SCHMIDT
Associate Degree Nursing
R.N., Madison General Hospital School of Nursing
B.S.N., University of Wisconsin—Madison
M.S., University of Wisconsin—Madison

SALLY SCHRAZ
Child Care
B.A., Barnard College, New York
M.Ed., Erickson Institute for Early Childhood

DONALD SCHROEDER
Automotive
Diploma, Madison Area Technical College
B.S., University of Wisconsin—Stout
Graduate study, University of Wisconsin—Stout; University of Wisconsin—Whitewater; University of Wisconsin—Milwaukee

JOHN SCHULTZ
Apprenticeship—Quality Development
A.A.S., Madison Area Technical College
A.T.M., Milwaukee School of Engineering
B.A., National College of Education, Evanston, IL
M.S., National College of Education

LEE SCHWARTZ
Auto Body
Graduate study, University of Wisconsin—Stout

SUSAN SCHWERTFEGGER
Office Technology
B.S., Edgewood College, Madison
M.S., University of Wisconsin—Madison
Graduate study, Northern Illinois University—Dekalb; University of Hawaii—Honolulu; University of Wisconsin—Madison; University of Wisconsin—Whitewater; University of Wisconsin—Stout

LISA SEIDMAN
Biotechnology Laboratory Technician
B.S., University of Illinois—Champaign/Urbana
M.S., Washington State University
Ph.D., University of Wisconsin—Milwaukee

GARY SELL
Accounting
B.S., University of Wisconsin—Whitewater
M.S., University of Wisconsin—Madison
Graduate study, University of Wisconsin—Madison

ESTHER SEVERA
Office Technology
B.S.A., University of Wisconsin—Madison
M.S., University of Wisconsin—Madison
Graduate study, University of Wisconsin—Madison; University of Wisconsin—Stout

DAVID B. SHAW
Chemistry
B.A., Columbia University
M.A., City University of New York
M.S., University of Wisconsin—Madison
Ph.D., University of Wisconsin—Madison

TERRENCE P. SHEA
Data Processing
B.B.A., University of Wisconsin—Whitewater
M.S.T., University of Wisconsin—Eau Claire

TERRENCE SHELDON
Data Processing
B.B.A., University of Wisconsin—Whitewater
Graduate study, Michigan State University; University of Wisconsin—Eau Claire; University of Wisconsin—Stout

TWILA SHESKEY
Associate Degree Nursing
R.N., St. Mary's School of Nursing, Milwaukee
B.S.P.H.N., Marquette University
M.S., University of Wisconsin—Madison
Graduate study, University of Wisconsin—Madison

MICHAEL F. SIEMON
Electronics
A.S.E.E., Wisconsin School of Electronics
Additional study, General Telephone of Wisconsin; GTE-Lenkuft; GTE-Data Systems; Madison Area Technical College

JAMI SKAAR
Radiography
University of Wisconsin—Madison
University of Wisconsin—Stout
Madison General Hospital School of Radiologic Technology

RALPH A. SMIEJA
Accounting
B.B.A., University of Wisconsin—Madison
M.S., University of Wisconsin—Madison
Graduate study, University of Wisconsin—Stout

JEAN SMITH
Practical Nursing
R.N., Deaconess Hospital School of Nursing—Milwaukee
B.S.N., University of Wisconsin—Madison
Graduate study, University of Wisconsin—Madison

PATRICIA SMITH
Associate Degree Nursing
B.S., Seton Hill College, Pennsylvania
B.S.N., Case Western Reserve University, Ohio
M.S., University of Wisconsin—Madison

WALLACE L. SMITH
Auto Body
Diploma, Madison Area Technical College
A.S.E.E., Wisconsin School of Electronics
Undergraduate study, University of Wisconsin—Stout

FLORIAN N. SMOCKNY
Social/Environmental Studies
B.A., Western State College of Colorado
M.A., Western State College of Colorado
M.S., University of Wisconsin—Madison
Graduate study, University of Wisconsin—Madison

WILBERT SNYDER
Economics
B.A., University of Michigan
M.A., University of Wisconsin—Madison

EUGENE SOLBERG
Electronics
B.S.E.E., University of Wisconsin—Madison
M.S., University of Wisconsin—Stout

SANDRA SOLBERG
Associate Degree Nursing
B.S.N., University of Wisconsin—Madison
M.S., University of Wisconsin—Madison
M.S.N., University of Wisconsin—Madison

FRANCES SOUKUP
Associate Degree Nursing—Reedsburg
B.S.N., Columbia Hospital School of Nursing
B.S.N., Marquette University
M.S.N., Marquette University
C.S., American Nurses Association
Graduate study, University of Wisconsin—Stout
BARBARA SPAR-MALAMUD
Human Services Associate
B.A., University of Colorado
M.S.W., University of Denver
M.S., Colorado State University
Ph.D., University of Wisconsin-Madison

ANN STEHNO
Business-Fort Atkinson
B.S., Oklahoma State University
Graduate study, University of Wisconsin-Whitewater

JANET BROWNING STEVENS
General Education
B.A., University of Wisconsin-Madison
M.P.A., University of Wisconsin-Madison
M.A., University of Wisconsin-Madison
Doctoral candidate, University of Wisconsin-Madison

DAVID G. STOKES
Business Law
B.A., Bradley University, Peoria, Illinois
J.D., John Marshall Law School, Chicago, IL

T. ELLA STROther
English
B.A., University of Northern Iowa-Cedar Falls
M.A., University of Wisconsin-Madison
Graduate study, University of Wisconsin-Madison

DAVID STUBER
Graphic Arts
A.D., Madison Area Technical College
Additional study, University of Wisconsin-Stout

JERRY STUMPF
Printing and Publishing
Wisconsin Indentured Apprenticeship Program
Printing Pressman's and Paper Handler's Union Completion Certificate

PAULA SUOMINEN
Office Technology
B.Ed., University of Wisconsin-Whitewater
Graduate study, University of Wisconsin-Whitewater; University of Wisconsin-Stout; University of Wisconsin-Madison

RICHARD W. SWANSON
English
B.A., Rockford College
M.A., University of Wisconsin-Madison

KAY SWITZER
Clothing and Textiles/Home Furnishings
B.S., University of Wisconsin-Madison
Graduate study, University of Wisconsin-Madison; University of Wisconsin-Stout

BERNADINE TACKOWIAK
Practical Nursing
B.S.N., Marquette University
M.S., University of Wisconsin-Stout
Graduate study, University of Wisconsin-Madison

NANCY TANS
Marketing-Fashion Merchandising
B.S., University of Wisconsin-Madison
M.S., University of Wisconsin-Madison
Ph.D., University of Wisconsin-Madison
Special study, New York University; Fashion Institute of Technology; University of British Columbia-Vancouver

YAMAN TARI
Architectural Technology/Architectural Drafting
B.S., Robert College of Engineering-Istanbul, Turkey
M.S., Kansas State University
Post-graduate study, University of Wisconsin-Madison

ROBERT L. TAYLOR
Veterinary Technician, Laboratory Animal Technician
D.V.M., Iowa State University
M.S., University of Wisconsin-Madison
Graduate study, University of Wisconsin-Madison; University of Wisconsin-Stout

NANCY TE WINKEL
Dental Assisting
Diploma, Madison Area Technical College
B.S., University of Wisconsin-Madison
M.S., University of Wisconsin-Stout
Graduate study, University of Wisconsin-Madison; University of Wisconsin-Stout

LINDA M. THOMPSON
Respiratory Therapy
A.A.S.-Respiratory Therapy, Madison Area Technical College
B.S., University of Wisconsin-Madison

ROBERT J. THOMPSON
Accounting
B.B.A., University of Minnesota-Minneapolis
M.B.A., University of Wisconsin-Madison
Graduate study, University of Wisconsin-Madison

TERRIE THOMPSON
Home Economics
B.S.-Child Development, Iowa State University
M.S.-Adult Education, University of Wisconsin-Madison

THOMAS G. THOMPSON
Accounting
A.D., Madison Area Technical College
B.B.A., University of Wisconsin-Madison
Graduate study, University of Wisconsin-Stout; University of Wisconsin-Madison

JODY THRUS
Spanish
B.S., University of Wisconsin-Madison
M.A., University of Wisconsin-Madison
M.S., University of Wisconsin-Madison

PHYLLIS TOWNSWICK
Mathematics
B.S., Illinois State University
M.A., Western Michigan University
Additional study, University of Wisconsin-Madison

LAURA TRIEBOLD
Practical Nursing-Fort Atkinson
B.S.N., Skidmore College
Graduate study, University of Wisconsin-Whitewater

DONALD B. TRUDELL
Art
B.S., University of Wisconsin-River Falls
M.S., University of Wisconsin-Milwaukee
M.F.A., University of Wisconsin-Milwaukee

JAMES VAN LOENEN
Public Works Technician
B.S., Kansas State University
M.S., University of Missouri-Columbia
M.S., University of Wisconsin-Madison
Graduate study, University of Missouri-Kansas City; Iowa State University

KATHRYN VERAGE
English
B.A., University of Wisconsin-Madison
M.A., University of Wisconsin-Madison
Ph.D. candidate, University of Wisconsin-Madison

COLLEEN VIDLOCK
Office Technology/Business Lab
B.S., University of Wisconsin-Whitewater
Graduate study, University of Wisconsin-Madison; University of Wisconsin-Whitewater

RICHARD VIRTUE
Automotive
A.D., Madison Area Technical College
B.S., University of Wisconsin-Stout
Graduate study, University of Wisconsin-Stout; University of Wisconsin-Madison

MARY LEANNAH VLISIDES
Medical Laboratory Technician
B.S., University of Wisconsin-LaCrosse
Medical Technician Internship, Rockford Memorial School of Medical Technology

PETER VLISIDES
Recreation Resource/Tourist Recreation
B.A., University of Michigan
M.A., University of Michigan
Graduate study, University of Wisconsin-Madison

DEBORAH VOGT
Commercial Art
R.N., Mercy Medical Center School of Nursing/University of Wisconsin-Oshkosh
A.D., Madison Area Technical College
Additional study, University of Wisconsin-Madison

GAIL WALKER
Respiratory Therapy
A.D., Madison Area Technical College
JOANN WALKER  
Physical Education  
B.S., University of Wisconsin-Madison  
Graduate study, University of Wisconsin-Madison; Edgewood College

HENRY WALSKI  
Data Processing  
B.S., Winona State College  
M.S., University of Wisconsin-Stout

TONI WALSKI  
Occupational Therapy Technician  
B.S., University of Wisconsin-Madison  
M.S., University of Wisconsin-Stout  
O.T.R., American Occupational Therapy Association

JOANN WARJ)  
Emergency Medical Training-Apprenticeship Center  
B.S., University of Wisconsin-Madison

DONALD WEGNER  
Mechanical Design-Watertown  
University of Wisconsin-Platteville

RAY WEIGAND  
Farm Training-Reedsburg  
B.S., University of Wisconsin-Platteville  
M.A., University of Wisconsin-Platteville

NATHAN O. WEIGT  
English/Speech  
B.A., University of Wisconsin-Madison  
Graduate study, University of Wisconsin-Madison

JANICE WEINBERG  
Data Processing  
B.A., State University of Cortland, New York

SONJA WEINER  
English  
B.A., University of St. Thomas-Houston  
M.A., University of Texas-El Paso  
Graduate study, University of Wisconsin-Madison

ALVIN WHITAKER  
Police Science  
B.S., University of Wisconsin-Madison  
J.D., University of Wisconsin Law School

FORREST C. WHITSON  
Culinary Trades  
Wisconsin Restaurant Institute, Madison Area Technical College  
Lewis Hotch-Motel School, Washington, D.C.  
Special study, University of Wisconsin-Stout  
Certified Executive Chef, American Culinary Association

BOYD WHITT  
Wood Technology  
B.S., University of Wisconsin-Stout  
M.S., University of Wisconsin-Stout  
Graduate study, Northern Illinois University; NDEA Institute-San Jose State College

LYN WIBLE  
General Education  
B.A., Purdue University, West Lafayette, IN  
M.S., University of Wisconsin-Madison  
Certified Alcohol and Drug Counselor

GERRI WICKLUND  
Office Technology/Business Lab  
B.S., University of Wisconsin-Whitewater  
Graduate study, University of Wisconsin-Stout

CLAIR A. WIEDERHOLT  
Psychology  
B.S., Loyola University, Chicago  
M.S., University of Wisconsin-Madison  
Graduate study, University of Wisconsin-Madison, University of Wisconsin-Stout

KATHERINE WIGGINS  
Interior Design  
B.S., University of Wisconsin-Madison

CALVIN WILLIAMS  
Emergency Medical Training  
B.S., University of Wisconsin-Madison  
Graduate study, University of Wisconsin-Madison

FREDRIC WILLIAMS  
Psychology  
B.A., University of Wisconsin-Madison  
M.A., University of Illinois  
Graduate study, University of Wisconsin-Madison

PETER WILMAUTH  
Marketing  
B.A., University of Missouri-Columbia  
M.B.A., University of Missouri-Columbia

CATHERINE WILSON  
Occupational Therapy  
B.S., University of Wisconsin-Madison  
Graduate study, University of Wisconsin-Madison  
O.T.R., American Occupational Therapy Association

JOHN L. WILSON  
Animal Technician  
B.S., Indiana University  
M.S., University of Wisconsin-Madison  
Graduate study, University of Wisconsin-Madison; University of Wisconsin-Stout

Z. VANCE WILSON  
English  
B.A., Yale University  
Diploma of Anglo-Irish Literature, Trinity College, University of Dublin  
M.A., University of Virginia

SHARON WINTERS  
Business-Reedsburg  
B.S., University of Wisconsin-Eau Claire

JANET A. WODER  
English/Traxx Learning Center  
B.A., University of Wisconsin-Stevens Point  
M.A., University of Minnesota-Minneapolis

GEORGE YOUNG, JR.  
Culinary Trades  
Wisconsin Restaurant Institute, Madison Area Technical College  
Special study, University of Wisconsin

JOAN H. ZAVORAL  
Associate Degree Nursing  
B.S.N.; University of North Dakota  
M.S.N., University of Wisconsin-Madison  
Graduate study, University of Wisconsin-Madison

ANN M. ZETTLE  
Office Technology-Reedsburg  
B.S., University of Florida  
M.S., Boston University

ERWIN ZWEIFEL  
Farm Training  
B.S., University of Wisconsin-Platteville  
M.S., University of Wisconsin-Platteville
Alphabetical index

Guide to the catalog

This Alphabetical index will help you locate specific topics. For your convenience, programs of study, divisions and departments appear in boldface.

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<td>South Madison Education Center</td>
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<td>MATC-Fort Atkinson</td>
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<td>(608) 524-4386</td>
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