



MORAINÉ PARK TECHNICAL COLLEGE 2016 - 2017



CATALOG

MORAINEPARK.EDU



Our Mission

Preparing students for success
in a diverse and globally connected world.

Vision for 2020

A college of choice for students and a strategic partner for business and industry.

Strategic Priorities

Build a supportive culture to make us an employer of choice—The capacity of the college to implement Innovation 2020 will depend on highly skilled, committed and engaged instructors and staff. As an increasingly greater number of the college workforce retires, we will need to be able to recruit and retain top talent. In order to develop and maintain a positive culture and climate, effective leadership at all levels will be required.

Improve student success through innovative programming, delivery and services—To remain competitive and meet the rapidly changing needs of our diverse student population and employers, the college will need to adopt new methods, create new offerings, and offer new approaches to learning.

Strengthen our K-16 and community connections—The College prepares students not only for careers, but for the next level of higher education. This requires coordinated planning and communication with school districts and communities and expanded relationships with four-year colleges and universities to enable our students to seamlessly continue their educations.

Advance the efficient and effective use of technology—The College must have contemporary technology and labs and reliable, compatible and intuitive information technology systems to support learning, student services, and college processes.

Moraine Park Technical College Is Accredited By:

The Higher Learning Commission of the North Central
Association of Colleges and Schools
230 South LaSalle Street, Chicago, IL 60604, 1-800-621-7440

Moraine Park Technical College Is Authorized to

Award Degrees By:

Wisconsin Technical College System Board
4622 University Avenue, Madison WI 53705

Welcome to Moraine Park Technical College



Our academic staff partner with leaders in business and industry to ensure our students are learning the skills these employers want and need when hiring today and into the future.

Bonnie Baerwald, President



Greetings From the President

Congratulations on taking the first step to earning your college degree and thank you for making Moraine Park Technical College your educational choice.

At Moraine Park, our mission is “preparing students for success in a diverse and globally connected world,” and we offer students many opportunities to ensure we live up to our mission.

Education abroad is one of those offerings and is a powerful way for students to build real world skills, gain self-confidence, and develop global awareness. We currently offer trips to Belize, Germany, Ireland and Jamaica, as well as a new opportunity to London and Paris. International experiences are offered as short-term travel and full summer or semester abroad experiences, all while earning college credits. Many of our international trips incorporate service-learning, allowing students to truly immerse themselves in another culture while partnering with non-profit organizations to bring community service projects to underprivileged communities.

Diversity in career offerings is also a strength at Moraine Park. From healthcare and engineering, hospitality and business or manufacturing and IT, we offer more than 100 associate of applied science degrees, technical diplomas, short-term certificates and apprenticeships. All of our educational offerings provide students hands-on

training in state-of-the-art labs and facilities. Our academic staff partner with leaders in business and industry to ensure our students are learning the skills these employers want and need when hiring today and into the future.

The ability to earn your degree in just one or two years and enter the workforce in short time is a key reason many students come to Moraine Park. We pride ourselves on the ability to provide this, and our credit for prior learning offers another option for students to move more quickly in this direction. However, many students also come to us with the intention of earning a four-year degree, and our numerous credit transfer agreements with public and private colleges and universities, including online colleges, create a clear path to achieve that goal as well.

I know you have many choices when it comes to earning your college degree, and I am confident you have made the right choice with Moraine Park. I wish you all the best on your educational journey!

Warm Regards,

A handwritten signature in cursive script that reads "Bonnie Baerwald".

Bonnie Baerwald
President

2016-17 Moraine Park District Board



Vernon Jung Jr.
Chairperson
Additional Member -
Kewaskum



Mike Miller
Vice-Chairperson
Elected Official -
West Bend



Kim Krueger
Employee Member -
Randolph



Mike Staral
Secretary
Employer Member -
West Bend



Candelaria Fields
Employee Member -
Mt. Calvary



Judy Lux
Additional Member -
Fond du Lac



Dr. Lisa Olson
School District
Administrator - Hartford



Lowell Prill
Additional Member -
Brandon



J. Bur Zeratsky
Employer Member -
Green Lake

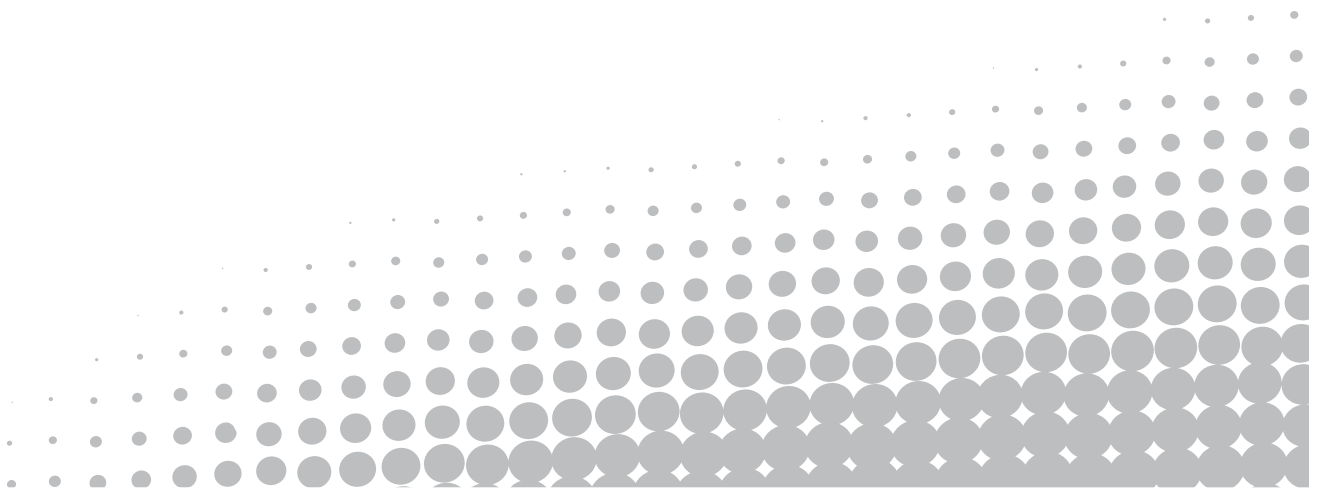


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All students and alumni ("Students") are advised that Moraine Park Technical College ("Moraine Park") Marketing and Communications staff take photographs and videos of Students throughout the year. These photographs and videos often include Students in classrooms, study areas, and at Moraine Park-related events and activities. Moraine Park reserves the right to use these photographs and videos as a part of its publicity and marketing efforts. Students who enroll at Moraine Park do so with the understanding that these photographs and videos might include their names, pictures, images, voices, and likenesses, and such photographs or videos might be included, published, or used in Moraine Park's publications including print, broadcast, or electronic media, for publicity, commercial, or marketing purposes, and enrollment at Moraine Park constitutes Students' consent to the inclusion, publication, or use of their names, pictures, images, voices, and likenesses in Moraine Park publications, both printed and electronic, for publicity, commercial, promotional, or marketing purposes.

Academic Calendar

2/3/2016	
2016 *Summer Semester (June 6 - August 12)	
June 2 - July 29	College Closed on Fridays
June 6 - June 24	3-Week Session
June 20 - August 12	8-Week Session
June 6 - August 12	10-Week Session
June 21	*Open Registration for Fall Semester
July 4	Holiday - College Closed
July 20	Fall Tuition and Fees Due
August 8 - 12	Book Buyback
August 12	Rental Book Returns Due
2016 Fall Semester (August 22 - December 16)	
August 22	Start of Fall Semester and First 8 Weeks
September 5	Holiday - College Closed
October 17	End of First 8 Weeks
October 19	Start of Second 8 Weeks
November 8-10	Returning Student Registration for Spring Semester (priority, online only)
November 15-17	New Program and Returning Pre-Core Student Registration
November 23	No Classes - College Closes at 6:00 pm
November 24-25	Holiday - College Closed
November 29	New Pre-Core and Certificate Registration
December 6	*Open Registration for Spring Semester
December 12-16	Book Buyback
December 16	End of Fall Semester and Second 8 Weeks
December 16	Rental Book Returns Due
December 20	Spring Tuition and Fees Due
December 22	College Closes at 6:00 pm
December 23 - January 2	College Closed for Winter Break
2017 Spring Semester (January 23-May 19)	
January 23	Start of Spring Semester and Term 3
March 17	End of Term 3
March 20-24	Spring Break
March 27	Start of Term 4
April 4-5	Summer Program Student Registration (priority, online only)
April 6	*Open Registration for Summer Semester
April 14	Holiday - College Closed
April 25-27, May 2-4	New Program and Returning Pre-Core Student Registration
May 5	Summer Tuition and Fees Due
May 15 - 19	Book Buyback
May 16	New Pre-Core and Certificate Registration
May 19	Rental Book Returns Due
May 19	End of Spring Semester and Term 4
May 20	Commencement - 10:00 a.m.
<p>*Students can continually register after scheduled time begins. Semester (16 weeks) and (8 weeks) dates referenced above reflect commonly scheduled courses. Other courses can be offered at various scheduled times during the year.</p>	

Accreditation

Alcohol and Other Drug Abuse - Department of Safety and Professional Services

Automotive Technician - National Automotive Technicians Education Foundation

Automotive Technology - National Automotive Technicians Education Foundation

Cosmetology - Department of Safety and Professional Services

Cosmetology Apprenticeship - Department of Safety and Professional Services

Chiropractic Specialist - Wisconsin Chiropractic Examining Board and approved by the American Chiropractic Registry of Radiologic Technologists

Emergency Medical Technician - Paramedic - Commission on Accreditation of Allied Health Education Programs (CAAHEP) in cooperation with the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP)

Health Information Technology - Commission on Accreditation for Health Informatics and Information Management Education

Medical Assistant - The Medical Assistant program is accredited by the Commission on Accreditation of Allied Health Education Programs upon the recommendation of the Medical Assisting Education Review Board (MAERB). Commission on Accreditation of Allied Health Education Programs, 1361 Park Street, Clearwater, FL, 33756, 727-210-2350. www.caahep.org

Medical Laboratory Technician - The Medical Laboratory Technician program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS, 5600 N. River Road, Suite 720, Rosemont, IL 60018; Phone: 773-714-8880; www.naacls.org). Upon graduation, students are eligible to sit for the National Board of Certification Exam through the ASCP.

Nail Technician - Department of Safety and Professional Services

Nursing - Accreditation Commission for Education in Nursing, Inc., and the Wisconsin State Board of Nursing

Paramedic Technician - Commission on Accreditation of Allied Health Education Programs (CAAHEP) in cooperation with the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP)

Radiography - Joint Review Committee on Education in Radiologic Technology

Respiratory Therapist - The Moraine Park Respiratory Therapist Program, CoARC #200444, awards an Associate of Applied Science Degree. The program is located on the Fond du Lac campus and is accredited by the Commission on Accreditation for Respiratory Care (www.coarc.com).

Surgical Technology - Commission on Accreditation of Allied Health Education Programs in cooperation with the Accreditation Review Council on Education in Surgical Technology and Surgical Assisting



■ HINT

Some programs have limited space and great interest and only accept applications during specified fall and spring application windows. The fall application window is September 15 until October 15 and the spring application window is February 15 to March 15. Please check with the Admissions Office for program availability and application windows.

■ INDIVIDUAL CAMPUS TOURS

College representatives provide a personalized opportunity to see the campus and classrooms, to explore program offerings, and to learn about the admissions process. Call 920-924-3208 to set up your appointment with a Recruitment Specialist.

■ FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT (FERPA)

Educational records are protected under the provisions of the Family Educational Rights and Privacy Act of 1974. Students wishing to withhold public information under this law can obtain information from the Registrar's Office. The annual notification of rights under FERPA is available on the MPTC website: morainepark.edu/FERPA.

Standards of Admission

Moraine Park Technical College has an open course enrollment procedure. Most courses are open to all students who complete prerequisite course requirements with passing grades or meet specific program admission requirements such as criminal background checks or requirements set by state statutes. Moraine Park has remedial and developmental courses to assist those students who do not have the prerequisite requirements.

Admissions Procedure

Applications will be processed after the following steps are completed:

- A. Associate of Applied Science Degree and Technical Diploma Programs
 1. Complete and forward an application to any Moraine Park campus. Prospective students may also submit an online application through morainepark.edu.
 2. Include a one-time \$30 nonrefundable application fee.
 3. Submit **official** high school transcript and, if applicable, all **official** postsecondary transcript(s).
 4. Take the college placement test* or submit ACT scores. Allow three hours for testing time. There is a \$15 nonrefundable fee for the test.

5. Additional admission steps may be required for some programs (i.e., Criminal Background Check, program orientation). Students will be notified of any additional steps.
- B. Certificate Admissions
 1. Complete and forward an application to any Moraine Park campus. Prospective students may also submit an online application through morainepark.edu.
 2. Include a one-time \$30 nonrefundable application fee.
 3. Additional admission steps may be required for some programs (i.e., Criminal Background Check, program orientation). Students will be notified of any additional steps.

*ACCUPLACER is a placement tool that assists in determining student's skill level in reading, writing and mathematics. ACCUPLACER scores do not affect acceptance to Moraine Park. It is a tool designed to assist Moraine Park in determining the appropriate level of coursework for students.

High school students may apply for admission after July 1 following their junior year. (Certain programs have specific application windows.) Please contact admissions to verify if applications are being accepted. An acceptance letter is issued once all application requirements have been completed.

Applications for admission may be obtained and submitted by scanning the QR code (located below) on your smartphone, online at morainepark.edu/admissions, or on campus at:

Moraine Park Technical College

Student Services Call Center
920-924-3207 or 1-800-472-4554

Beaver Dam Campus
700 Gould Street
Beaver Dam, WI 53916-1994

Fond du Lac Campus
235 North National Avenue
PO Box 1940
Fond du Lac, WI 54936-1940

West Bend Campus
2151 North Main Street
West Bend, WI 53090-1598

Moraine Park Web admission information is available at morainepark.edu/admission-and-registration.

Registration

Academic Semester and Registration Dates

The Academic Calendar (page 5) identifies the academic semester start and end dates, as well as the registration dates for the fall, spring and summer registration sessions. Registration priorities, news and other important details will be posted to the Student tab in *myMPTC*.

Priority Registration

Priority registration is given to program students. Specific registration dates and times for each program are designated for returning program students and new program students; followed by a pre-core and shared program student registration day. After completion of the program priority dates, registration is “open” to everyone. Classes are filled on a “first-come,

first-served” basis. All course prerequisites, corequisites or program restrictions must be met.

If a class is filled, students may request to be placed on a class waiting list. This class waiting list is compiled on a “first-come, first-served” basis. If an opening should occur in the class, students on the class waiting list will be called sequentially. Students have 24 hours (1 business day) to respond. If students do not respond within 24 hours, the next person on the waiting list will be called. If your contact information changes, please inform Student Services (front office) or submit a Student Record Change form available from the Student tab on *myMPTC*.

Veteran Priority Registration: Additional information under Veterans, page 11.

Registration Options

A student may register either:

- Through Self-service via Internet/*myMPTC* (Student tab; Add/Drop Classes link)
- In Person
- By Telephone

Semester Designations

Any course that starts between the dates indicated below belongs to the semester designated for the purpose of awarding financial aid, enrollment verification and degree conferment.

Semester	Start Date	End Date
Summer Semester	June 1	July 31
Fall Semester	August 1	December 31
Spring Semester	January 1	May 31

Moraine Park Web registration information is available at morainepark.edu/admission-and-registration.

Computer ID and Account Setup

It is important that you set up your student accounts in order to access *myMPTC*, e-mail, on-line learning, campus computers and on-campus printing. If you have already set up your account, please check your access to each.

- *myMPTC* is a password-protected resource. It provides access to self-service tools and your student records such as registration, grades, payment plan, financial aid and important College dates and information.
- Student Moraine Park Technical College e-mail is the official College communication tool. Course updates, teacher and student services contacts and other information is sent to your student e-mail. Read it regularly.
- Online Learning account is required for online or blended courses and is often used with traditional face-to-face courses.

Note: College policy requires periodic password change.

Important Reminder: Set up your security question and remember the answer with exact capitalization. This information is required if you need assistance with your PIN or password.

Instructions for activating your accounts can be found on the .edu website at: morainepark.edu/OpenMyAccount.



Financial Information/Financial Aid

	Fee Type	Description	Cost
Testing	Placement Test		\$15.00
	GED/HSED	Charge per test attempt.	\$33.75
Enrollment	Application Fee	One-time application fee for admissions.	\$30.00
	Program Tuition - State Resident	Charged for all associate of applied science degree, technical diploma, and state resident apprenticeship credits. Charged for adult and continuing education credit equivalents.	\$130.35 per credit
	Program Tuition - Nonresident	By act of the Wisconsin State Legislature [Wisconsin Statute 38.24(3)], nonresident students who are not Wisconsin residents nor subject to reciprocal agreements with the WTCS Board must assume liability for the nonresident fee of \$58.45 added to the based tuition established by the WTCS. In all cases the student is responsible for providing proof of residency. Courses taken online are not subject to nonresident fees.	\$195.53 per credit
	Material	Instructional materials consumed by students and instructors.	Varies with \$4.50 minimum per course
	Supplemental	Partially subsidizes district-wide programs in student health, student development and student life.	7% of program fees
	Security	Supplemental fee charged for courses that meet in a Beaver Dam, Fond du Lac or West Bend campus classroom.	\$1.00 per credit
	Avocational		\$216.00
	Uniform Service	Charged for use of uniforms in certain programs.	\$19.00 per credit
	Student Accident Insurance	Charged for mandatory accident insurance plan.	\$6.00 per semester
	Online Course Access		\$45.00 per course
Other	Credit for Prior Learning - Exam	Charge per challenge exam for advanced standing credit. Must be paid prior to taking exam and is nonrefundable.	30% of resident program tuition fee
	Credit for Prior Learning - Occupational Experience	Processing fee must be paid in full to initiate occupational credit evaluation. No fee is charged for transfer of credit. Evaluation of military experience is exempt from processing fee.	\$30 processing fee per course
	Official Transcripts	Printed on MPTC transcript paper; regular processing is within 2 business days of receipt of request; on-demand processing is at the time the request is submitted.	\$6.00 per transcript - regular \$10.00 per transcript - on demand
	Replacement Diploma	Fee assessed for replacement of lost or damaged diplomas.	\$15.00
	Deferred Tuition Plan	Non-refundable fee assessed each semester a tuition plan is established - requires an application.	\$35.00 per semester
	Criminal Background Check	Cost associated with acquiring a criminal background check from the Wisconsin Department of Justice and Department of Health and Family Services for all programs listed under the Liability Insurance Fee.	\$30.00
	Motor Vehicle Record Check	Costs associated with obtaining proof of valid driver's license for Electrical Power Distribution students for CDL training purposes.	\$20.00
	Books/Supplies	Includes items such as the tool kit and mannequin required in Cosmetology, kitchen knives required in Culinary Arts, tool kit deposit/rental and special materials such as safety equipment required in manufacturing programs. Textbooks and supplies are available in the Moraine Park Bookstore.	Varies by course and program.
	GED/HSED Certificate		\$15.00 per certificate
	GED/HSED Replacement Certificate		\$15.00 per certificate

These costs are provided by the Registrar's Office and are subject to change without notice. They are not to be considered as contractual guarantees or absolute costs in each program.

Costs for the first year of programs range from \$1,500* to \$5,000* per year for tuition and fees depending on the number of credits taken. Books and supply costs range from \$350* to \$2,100* depending on the program. Contact Student Services for updated costs per program.

*Estimate

Determination of Residency: The Moraine Park district must report annually the names and addresses of non-district Wisconsin residents enrolled. The Moraine Park district encompasses the areas of Dodge County, less the portion of the Oconomowoc, Watertown, Columbus, Randolph and Waterloo school districts; Washington County, less the portion of Milwaukee, Cedarburg and Germantown school districts; Green Lake and Fond du Lac counties; plus the portion of the New Holstein school district in Calumet and Sheboygan counties, Berlin school district in Waushara and Winnebago counties, Ripon and Rosendale school districts in Winnebago County; Princeton school district in Marquette County; and Markesan school district in Marquette and Columbia counties. Student questions regarding residency should be directed to the Registrar.

Financial Information/Financial Aid (cont.)

Payment, Drop, Refund and Withdrawal Overview

Financial Responsibility

By registering for courses at Moraine Park Technical College, the student accepts financial responsibility for payment of all institutional costs including, but not limited to, tuition, fees, accident insurance (if applicable), and any additional costs when those charges become due. It is understood MPTC is advancing value to the student in the form of educational services and that the student's right to register is expressly conditioned upon their agreement to pay these student obligations.

It is also understood that the College-assigned e-mail address is the official method of communication by the District Business Office. It is the student's responsibility to check and manage their e-mail account so that important information can be received. As billing statements are available online, your failure to receive a billing statement does not constitute a valid reason for not paying a bill in a timely manner. Charges that result from failure to pay on time or to respond to a District Business Office message are the student's responsibility.

It is further understood that the student account is considered by MPTC, an institution of higher learning, to be an educational loan made to the student to assist in the financing of education and, therefore, is not dischargeable under the United States Bankruptcy code.

In order to avoid financial responsibility, if the student decides not to attend a class, he must officially drop that class within the stated refund periods. Be aware that dropping classes may reduce eligibility for financial aid, resulting in debt owed.

Payment of Fees

- All fees are payable at the time of registration or by the due dates offered prior to the fall, spring, and summer semesters. If the due date has expired, payment is due at time of registration.
- Registration is not complete nor are students permitted to attend classes until all fees are paid.
- Students who have not met their payment responsibility by paying in full, enrolling in a payment plan, completing all steps of the financial aid process, or submitting a Third Party Contract Application by the due date may be dropped from ALL classes for non-payment.

Course Drop Refund

At Moraine Park Technical College, a student's academic success is important to us. When a student enrolls in classes, they make a commitment to participate and attend classes. If a student chooses not to start and/or continue their academic studies with us, the classes dropped would then be subject to the Wisconsin Technical College System Refund Policy. Refunds are applicable only from the date the student officially drops the class via self-service on *myMPTC* or completing an add/drop form and submitting it to Student Services. Drop requests are not accepted through instructors.

Except in case of cancellation or discontinuance of courses, every student must drop the course within the stipulated time period. Duration (length) of a course is used to determine potential refunds. Duration includes all calendar days between start and end date of a course.

1. 100% Refund:
 - a. If the District cancels a course, 100% of student fees will be refunded.
 - b. If a student drops before the first class meeting, 100% of student fees will be refunded.
2. 80% Refund:
 - a. If a student drops before or at the time 10% of the course's potential hours of instruction have been completed, 80% of student fees will be refunded.
3. 60% Refund:
 - a. If a student withdraws after 10% but before more than 20% of the course's potential hours of instruction have been completed, 60% of student fees will be refunded.
4. 0% Refund:
 - a. If a student withdraws after 20% of the course's potential hours of instruction have been completed, 0% of student fees will be refunded.

Refund Appeals

- Refund appeal requests are considered on rare occasion for legitimate extenuating circumstances at the discretion of the Registrar. Extenuating circumstances are those situations outside of a student's control.
- Consideration of an exception requires students submit the Request for Refund Appeal form and official supporting documentation (i.e., medical notes, military activation orders) for review to Student Services. Refund appeals must be submitted within sixty (60) calendar days of the class start date. Late withdrawal appeals must be submitted prior to a final grade having been issued for the class.

- Refund requests made after the 60-day grace period will not be accepted, and students are responsible for payment.

Withdrawals

Withdrawals that occur prior to 11 percent of the potential hours of a course having been completed will be treated as a drop in which the courses will not appear on an official transcript. Withdrawals that occur when 11 percent or more of the potential hours of a course have been completed will be documented on an official transcript as a withdrawal. Students are not allowed to withdraw from a course if 67 percent or more of the potential hours of the course have been completed. Administrative withdrawals can occur at any time throughout a semester at the discretion of the College.

Withdrawal for Nonattendance

Students who register for a class but fail to attend will receive a grade of "WN" indicating a withdrawal due to nonattendance. The "WN" is treated as a withdrawal in that it does not impact a student's GPA; however, it does count as attempted credits, and the student does not receive a refund for the course.

Financial Aid

Financial aid helps make your education affordable. Funding is available in the form of grants, loans, scholarships and work-study programs.

The financial aid process starts with the Free Application for Federal Student Aid (FAFSA) to determine your "financial need." You will need to:

1. Complete the FAFSA application after January 1 for the following school year. Priority date for filing applications is April 15. Applications are available at Moraine Park's Financial Aid office or online at www.fafsa.gov. (The FAFSA asks for a school code. Moraine Park's code is 005303.)
2. Complete the Financial Aid Supplemental form and return it to Moraine Park's Financial Aid Office.
3. Complete the program admissions process. (Certificates and apprenticeships are not aid-eligible.)

Note: Applicants for Financial Aid must make satisfactory academic progress for continued aid eligibility. Federal law deems the portion of federal funds that must be repaid to the college for any student who withdraws or drops out. Please see the Financial Aid Award Guide available online at morainepark.edu/awardguide for more detailed information regarding financial aid processes.

Programs Approved for Veterans

Most programs of study at Moraine Park Technical College have been approved for veterans' benefits by the Veterans Administration under the Montgomery GI Bill-Active Duty, Post 9/11, Selected Reserve, VEAP, REAP, Vocational Rehabilitation, Federal Tuition Assistance, My CAA, and Veteran Educational Assistance for Survivors and Dependents programs. For more information concerning eligibility and the period of eligibility, contact the nearest VA office or your County Veterans Service Office.

Eligible veterans can apply for educational benefits through their local County Veterans Office. To receive maximum benefits, a veteran must be enrolled full-time in an associate of applied science degree or technical diploma program. Further information is available from the Financial Aid Office.

Veterans' Benefits

Associate Degree and Technical Diploma

Benefits	Credits
Full-time	12 or more
Three-fourths	9-11
One-half	6-8
Less-than-one-half	5 or less

Veteran Standards of Progress All veterans must continue to make satisfactory progress in their program. As required by the Veterans Administration Regulations, Moraine Park Technical College will report unsatisfactory progress

in accordance with the information under **Academic Standards** in this catalog (see page 14).

A veteran may be certified only for courses and electives required for their specific program. Credit from other higher education institutions must be evaluated for advanced standing. **It is the responsibility of the student** receiving veteran educational benefits to notify the Veterans' certifying office of enrollment, changes in enrollment and withdrawal.

For more information on MPTC's commitment to student veterans and military students, please visit morainepark.edu/veterans.

Veteran Priority Registration

Assembly Bill 201 gives priority registration to veterans and service members attending Wisconsin technical colleges. Those eligible include veterans and service members who are currently active or have an honorable or general under honorable discharge and reside in Wisconsin.

In accordance with the law, Moraine Park Technical College allows eligible veterans and service members (not including dependents) to register one (1) day prior to their standard designated registration date. Priority registration does not waive any course or program requirements, such as prerequisites and program restrictions.

Additional information can be found at morainepark.edu/financial-aid/veteran-benefits/priority-registration/#veteran-benefits.

Wisconsin Veterans Tuition Programs

Wisconsin G.I. Bill Wisconsin veterans may be eligible for a 100 percent waiver ("remission") of program (tuition) and material fees for courses leading to an associate degree, college transfer, or vocational diploma. This benefit is also available to certain spouses and children of eligible veterans as well. For additional information, eligibility criteria and application instructions, please go to the WDVA website at www.dva.state.wi.us or visit your County Veterans Service Office for assistance.

VetEd Reimbursement Grants Wisconsin veterans may be eligible for partial tuition reimbursement following successful completion of full- or part-time coursework. Pre-applications must be submitted no later than 180 days after the semester, term or course start date. Reimbursement grant applications must be completed no later than 60 days following the end of the course. To apply online, please go to the WDVA website at www.dva.state.wi.us or visit your County Veterans Service Office for assistance.

Wisconsin National Guard Tuition Grant provides a reimbursement of program fees for eligible Wisconsin National Guard Tuition Grant. Application must be submitted no later than 60 days after the course or term start. In addition to accessing the form online, student may obtain a copy of the application from the Veterans Certifying Official at Moraine Park Technical College.

Moraine Park Foundation and Community Scholarships

Scholarships

The Moraine Park Foundation was established in 1976 to help students lower the cost of their education through scholarship assistance. Foundation scholarships are funded by generous gifts from alumni, corporations, foundations, community organizations, Moraine Park faculty and staff, and other friends of the College. These gifts allow the College to provide an excellent education to students and to greatly enhance the skill level of the workforce in the Moraine Park district.

Moraine Park Foundation Scholarships are awarded to students enrolled in at least six credits. The scholarship application is available online at morainepark.edu/scholarships

from February through May. Applications are reviewed by a team of volunteers and are rated based on the following criteria: academic standing, extracurricular involvement/employment history, letters of recommendation and a personal statement describing education and career goals. Scholarship recipients will be notified in July, and awards will be disbursed evenly between the fall and spring semesters. All students are encouraged to apply, and the Moraine Park Foundation staff is available to help complete the application if need be—just call 920-924-3263 or 920-924-3225.

In 2015-16, the Moraine Park Foundation awarded over \$146,000 in scholarships to approximately 140 students. Next year, one of the recipients could be YOU--so apply today!

There are several community-based organizations and businesses that offer scholarships to students of Moraine Park. Each scholarship has its own process including application, timeline and award amount. All Moraine Park Foundation and community-based scholarships can be found at morainepark.edu/scholarship.

Moraine Park Technical College Alumni Association

The Moraine Park Technical College Alumni Association was created to provide opportunities for alumni to stay connected with their classmates and friends, faculty and staff and to support students through mentoring, volunteering, and giving. Membership in the Alumni

Moraine Park Foundation and Community Scholarships (cont.)

Association is free and provides many benefits including:

- Quarterly E-newsletter
- Special Events
- Networking Opportunities

- Distinguished Alumni Awards
- Job Search Assistance

For alumni news and events, go to the Moraine Park Technical College website (morainepark.edu).

edu) and click on “Alumni & Friends.” To speak with someone about the Alumni Association, call 920-924-3263 or 920-924-3225.

Student Life

Getting involved in Student Life at Moraine Park provides students an opportunity to meet people, make new friends, develop leadership skills, network among other technical college students, have fun while attending school and more! Student government, student clubs, statewide and national skill competitions and many different types of activities and events on our campuses allow you to gain even more from your college experience.

Student Government

Student government at Moraine Park Technical College provides students a place to share their opinions on college issues and provides opportunities to get involved in college life. Participation encourages the development of leadership skills, as students work with each other, act as liaisons amongst the student body and interact with faculty and the administration in the promotion of student rights. Consisting of representatives from each of the campus clubs, as well as members-at-large, the

Student Senates provide a voice for the Moraine Park student body on important issues facing students and coordinate social, cultural and leadership activities for the campuses. The District Student Government (DSG) consists of members from each of the campus senates and meets to address college-wide student issues. The Student Senates and District Student Government both work to promote the formation of student clubs throughout the College. Using supplemental fee dollars, all levels of student government provide social, cultural and educational opportunities for students using activities and programming concepts. Moraine Park Technical College is also a member of the Wisconsin Student Government (WSG). WSG consists of student representatives from all 16 of Wisconsin’s technical colleges.

Through participation in Student Government, students gain a working knowledge of parliamentary procedure; however, a very personal atmosphere is maintained.

Student Senate Advisors/ Student Involvement Specialists

Beaver Dam Advisor: Lisa Manuell, K-323
lmanuell@morainepark.edu

Fond du Lac Advisor: Samantha Saeger, A-102.9
ssaeger@morainepark.edu

West Bend Advisor: Melanie Schroeder, L160.2
mschroeder14@morainepark.edu

District Student Senate (DSG) and Wisconsin Student Government (WSG), Lead, Student Life: Lisa Manuell, lmanuell@morainepark.edu.

Student Clubs and Organizations

Student clubs and organizations are available to any student attending Moraine Park and offer you amazing opportunities to explore your field of study, while getting to know fellow students. Attending conferences, participating in competitions and working on service projects are just a few of the ways joining a club can add to your college experience. Visit our website at morainepark.edu/studentclubs for a complete list of clubs and organizations and the respective club advisors.

Support Services

A major goal at Moraine Park Technical College is to assist students in making maximum progress towards their educational, vocational, personal and social goals. The College provides services in the areas of financial aid, multicultural resources, advising, counseling, testing, employment assistance, student activities and disability services.

- **Academic Advising** - Academic advisors are available to assist you with academic planning and related issues, program-specific requirements and goal setting. Your advisor is your “campus connection” to resources available.

- **Career Center** - The Career Centers provide adults and youth with tools for career planning and for conducting a job search.
- **Counseling Services** - Counseling services, which are free and confidential, are available to assist you with short-term personal, career and academic issues.
- **Disability Resources** - Disability Resources offers reasonable accommodations for students with disabilities at all campus sites. Reasonable accommodations are determined by the Accommodation Specialist and are based upon the documentation provided and the accommodation requested.

- **Diversity Services** - The program provides assistance with personal academic plans, assignment review, homework clarification, minority scholarships/grants and the College admissions process.
- **The EDGE - TRiO Student Support Services** - The program provides personalized services for: (1) low-income, (2) first in the family to attend college, or (3) learning disabled students. It is partially funded by a grant from the U.S. Department of Education of \$220,000.
- **Information Technology (IT) Central Help Desk** - Point of contact for College computer-related support.

- **Nontraditional Occupations** - A nontraditional occupation (NTO) is defined as any occupation in which one gender makes up less than 25 percent of the workforce.
- **Online Help Desk** - Point of contact for computer technology related support for online courses.
- **Student Employment Services** - Employment Services helps with job search assistance.
- **Student Success Center** - Basic Education (math, reading and writing), GED/HSED, English Language Learners (ELL) and college coursework assistance.
- **Testing Services** - GED, HSED, ACCUPLACER and Credit for Prior Learning by Exam testing services are available.
- **Tutoring** - Moraine Park offers tutorial services to students who are experiencing difficulties in their courses.
- **Veteran Services** - The program provides assistance with tuition resources, admissions process, personal academic planning, student veterans community involvement and connecting you to the MPTC Student Veterans Association.

For complete information about our services, visit morainepark.edu/services. See our District Directory for support service contact information.

Grading and Academic Standards

Grades Used in GPA Computation

Grade	Definition	Grade Points Per Credit
A	The student has excelled in meeting all the competencies established for the course.	4 points per credit
B	The student has more than adequately met all the competencies established for the course.	3 points per credit
C	The student has adequately met all the competencies established for the course.	2 points per credit
D	The student has met the competencies, but not at an acceptable proficiency level established for the course.	1 point per credit
F	The student failed to meet one or more competencies established for the course.	0 points per credit

Symbols Not Used in GPA Computation

Symbol	Indication
I	Incomplete
W	Withdrawal
WN	Withdrawal for Nonattendance
AU	Audit
E	Credit for Examination
O	Credit for Occupational Experience

M	Advanced Standing Credit at MPTC
T	Advanced Standing Credit - Transfer
P	Pass
PC	Partially Completed
Continuing and Community Education	
S	Satisfactory
U	Unsatisfactory

Incomplete Procedure

The grade of Incomplete "I" may be given only when the completed portion of a student's work in the course is of passing quality and due to extenuating circumstances the student is not able to complete all of the course requirements. A student's desire to avoid a low grade is not a legitimate reason to award an incomplete. The student requesting an Incomplete should be able to complete the outstanding course requirements with minimal assistance from the instructor.

An "I" does not count as hours attempted. The student has until October 15 (summer term), March 15 (fall term) or July 15 (spring term) or earlier to complete the course requirements. If the instructor does not remove the "I" grade, the "I" grade will change to an "F" grade. Students cannot register for the same course while an "I" is outstanding.

Auditing a Course

A student may audit a course to gain a general understanding of a subject matter. The student must submit a completed Audit Course Intent Form at the time of registration. A student may not change his/her registration status from audit to credit or vice versa once the course has started. All course prerequisites must be met at the time of registration. Only undergraduate (UG) level courses can be audited.

A student auditing a course must pay the same tuition and fees as a student enrolled for credit. Per the 1999 Wisconsin Act 154, individuals who are 60 years of age or older are exempt from paying tuition when auditing a course. Any age 60+ auditor must be a resident of Wisconsin and will be required to pay course material fees and all other applicable student fees.

Auditing a course requires a student to meet attendance requirements, participate in classroom activities and complete all assignments required for the course; however, they do not complete examinations. Students who complete these course requirements are assigned a grade of "AU" (audit). Students who fail to complete these course requirements receive a grade of "W" (withdrawn).

A student does not earn course credit for auditing a course. Audited courses may not be used to satisfy the prerequisites or requirements for other courses. Courses taken on an audit basis are not part of the student's credit load for financial aid, veterans' benefits, or for any other purpose for which the college is asked to certify a student's enrollment status.

The college administration reserves the right to restrict the auditing of any course. Audit options are provided on a space-available basis. Students auditing a course may be administratively withdrawn (with a full refund) in the event that the course fills and students seek to enroll for credit.

Advanced Standing (Credit for Prior Learning)

Advanced standing (credit for prior learning) is the granting of credit in an associate of applied science degree or technical diploma program for knowledge or skills directly related to the

Grading and Academic Standards (cont.)

program curriculum. Credit may be granted based on proficiency gained through work experience, military experience or training, business/industry training, coursework completed at other institutions (including high schools with articulation agreements in place) or other prior learning experiences. Advanced standing (credit for prior learning) is awarded based on the following methods:

- **Credit by Examination** - Proficiency examinations allow students to demonstrate knowledge and skills related to a particular course. Upon successful completion and payment (see fee information), students are awarded credit. Students may also be awarded credit for a course(s) by achieving an acceptable score on an exam with nationally recognized standards including Advanced Placement (AP) and College Level Examination Program (CLEP). Official test scores must be submitted for credit to be awarded. Credit awarded by examination is recorded with a grade of "E" (examination).
- **Credit for Occupational Experience** - Students seeking credit for experience gained from occupations, military service and other learning experiences must request an evaluation and pay a processing fee for each request made (see fee information). Documentation must be provided to the appropriate academic associate dean for review. If approved by the academic associate dean and with payment (see fee information), students are awarded credit with a grade of "O" (occupational experience).
- **Credit for Advanced Standing and Articulation Agreements** - Students are awarded credit based on successful completion of high school courses for which an articulation agreement exists with the College. Credit is awarded after a student submits an official high school transcript documenting completion of the courses as outlined in the articulation agreement. For students transferring from another technical college district, credit awarded for high school coursework covered by an articulation agreement at the originating technical college shall be accepted as credit toward completion of a comparable course or courses. Credits awarded for advanced standing receive a grade of "M" (Moraine Park advanced standing).
- **Transfer Credit** - Students are awarded credit for coursework completed at postsecondary

institutions meeting accreditation requirements. Students are required to submit official transcripts for review. Students may be asked to obtain a course description and/or a course syllabus as needed to evaluate transfer credit. Transfer credit awarded is given a grade of "T" (transfer) along with the grade earned at the original institution. For example, if a student earns a "B" in a transfer course, a grade of "TB" will show on the Moraine Park transcript.

Students can earn no more than 75 percent of the total required credits required by a program through advanced standing (credit for prior learning). A minimum of 25 percent of the total program credits required in a degree, diploma or certificate program must be completed at Moraine Park Technical College.

Pass

The student successfully completed the competencies for the course. The symbol "P" counts as hours earned.

Partially Completed

The student completed required hours but did not meet all competencies for the course and is considered partially completed.

Satisfactory

The student successfully completed all required activities for the course.

Unsatisfactory

The student did not successfully complete all required activities for this course.

Repeat Courses

Students are allowed to repeat courses at Moraine Park. Health and nursing-related courses can be repeated once - all other courses can be repeated twice. All attempts remain on the student's official transcript; however, only the most recent attempt will be used in GPA calculations and to determine credits earned and attempted. Note: All attempts are considered when determining eligibility for financial aid.

Official Transcript of Grades

- > Official transcripts of all levels of the academic record must be requested in writing with signature to the Registrar's Office at the Fond du Lac campus.

- > There is a \$6 fee for each official transcript requested. A \$10 fee applies for on-demand official transcript requests.
- > Transcripts are not released to students with financial obligations to Moraine Park Technical College.
- > Transcripts can be viewed on *myMPTC*.

Grade Reports

Grades can be viewed on *myMPTC*. If official grades are needed, please request an official transcript from the Registrar's Office.

Academic Standards

- > A "C" grade (or equivalent for pass/fail courses) must be attained in all courses required for program graduation.
- > Failure to maintain standards will place students on academic probation or suspension (See Academic Standing below).

Academic/Attendance Requirements

The following criteria are used to evaluate a student's academic progress:

1. Good attendance
2. Completing assignments to make satisfactory progress toward course completion
3. Completing all program requirements
4. Meeting set standards in assigned projects and reports
5. Where applicable, demonstrating practical hands-on skills

If the instructor feels a student is not making satisfactory progress or is not regularly attending the class, he or she will work with advisors and/or Student Services. Recommendations may include a plan to improve study habits and/or attendance, to reduce class credit load, and/or to reduce the hours of employment. If recommendations are not followed, a student may be dropped from the class.

Academic Standing

Students who have attempted six or more undergraduate level courses at MPTC will establish an academic standing status based on a combination of semester and cumulative GPA calculations.

- Students with a semester and cumulative GPA of 2.0 or higher are in good standing.

- Students who earn a semester GPA of less than 2.0 will be placed on academic probation. While in a probationary status students are allowed to enroll in 15 or fewer credits in a semester. Students who are on probation will return to good standing once their cumulative GPA is 2.0 or higher.
- Students who earn a semester GPA of at least 2.0 but have a cumulative GPA of less than 2.0 will have a status of probation continued.
- Students will be placed on academic suspension if they fail to earn a semester GPA of at least 2.0 while in a probationary status. Students on suspension must sit out one full semester (fall or spring).

Dean's List

MPTC will publish a Dean's List each semester. To qualify for the Dean's List distinction, students must meet all of the following requirements:

- Earn a minimum semester grade point average (GPA) of 3.5;
- Be enrolled at least half-time (6 credits) in undergraduate-level courses;
- Cannot have a failing (F) or incomplete (I) grade in the semester; AND
- Must otherwise be in good academic standing.

Academic Amnesty

Moraine Park acknowledges that not all students are equally prepared for a successful academic career. Academic Amnesty is intended to provide an opportunity to remove a period of poor academic performance at Moraine Park from the GPA calculation. Moraine Park recommends students attempt to improve their academic record by **repeating a course(s)** first and utilizing Academic Amnesty as a last step. If the course is repeated, a repeat indicator of "E" will reside next to the previously earned failing grade. The last attempt of a course will be included in the GPA calculation. Students are encouraged to discuss ramifications and alternatives for Academic Amnesty with their academic advisor.

Due to federal regulations, the **Office of Financial Aid does not acknowledge Academic Amnesty when calculating eligibility for aid.** Therefore, for the purpose of Financial Aid, all credit attempts are counted and will continue to affect

Satisfactory Academic Progress. Academic Amnesty does not supersede Financial Aid. Transfer institutions may or may not acknowledge Academic Amnesty and may recalculate the Moraine Park GPA for their purposes. It is at the discretion of other institutions to determine how they will interpret Academic Amnesty. Moraine Park is not responsible for the application of Academic Amnesty at other institutions or by employers.

Criteria

- Academic performance can be forgiven after three (3) calendar years of absence from the end of the last semester of attendance to the beginning of the first semester enrolled (three years in which program coursework or coursework affecting the cumulative GPA was not attempted or completed).
- Students can apply for Academic Amnesty upon completion of 12 credit hours of undergraduate coursework with a "C" or better grade in each course upon their return to Moraine Park, after the absence.
- A maximum of two semesters may be requested for Academic Amnesty; semesters do not have to be consecutive. The semester(s) being requested must have a GPA under 2.0.
- Academic Amnesty will be granted for program coursework only. A course with a passing grade ("D" or better) will not be considered for amnesty.
- "W" = Withdrawal and "I" = Incomplete grades do not affect overall GPA but count as attempted courses. Only failing grades will be considered for Academic Amnesty.
- Academic Amnesty will be granted only once; even if the student does not take advantage of the full-limit (two semesters) of Academic Amnesty during their initial application.
- Academic Amnesty will be granted if all required criteria are met.

Stipulations

- Academic Amnesty is not reversible.
- Can be used only once in a lifetime.
- The coursework is forgiven only for the purposes of improving the Moraine Park GPA.
- Academic Amnesty status is not recognized by the federal government when calculating Financial Aid or Veterans' benefits: all previous conditions for aid remain.

- Classes removed from the GPA under Academic Amnesty will count toward attempted classes for Financial Aid purposes.
- Forgiven classes and grades remain on the transcript with Academic Amnesty grade noted.
- Forgiven classes cannot be applied toward graduation from Moraine Park. Only the improved GPA will be considered.
- Honors designations will not be granted retroactively for any prior degrees or coursework earned.
- Academic Amnesty does not affect Phi Theta Kappa eligibility for prior terms.
- Tuition will not be refunded for any coursework that is approved for Academic Amnesty.

Academic Amnesty Procedure

1. Students must apply for Academic Amnesty by submitting an application to the Registrar. The form is available at the Student Service Centers on the Beaver Dam, Fond du Lac or West Bend campuses. It is also available at *myMPTC*.
2. The student will indicate their understanding and full agreement with the Academic Amnesty policy and procedure by signing the application.
3. An application must be received no later than the fall term prior to a spring graduation or a decision will not be guaranteed in time for degree conferment. Fall graduates should submit this application no later than the end of the summer term.
4. The Registrar will review the application to determine if the identified criteria are met. If Academic Amnesty is granted, the Registrar will amend the academic record.
5. The Registrar will communicate the decision in writing to the applicant whether the request is approved or denied.
6. All decisions are final.

Final Grade Appeal

The purpose of the final grade appeal process is to provide a vehicle and structure for students to appeal final course grades. The grade appeal procedure only applies to final grades and not individual graded assignments.

Grading and Academic Standards (cont.)

Faculty members have the authority to establish course requirements and standards of performance within the college's established curriculum process. It is the responsibility of the faculty to articulate and communicate course requirements and grading standards to students

at the beginning of each course via the syllabus. Instructors must apply all grading criteria uniformly and in a timely manner. Final grades submitted to the Registrar's Office are presumed to be accurate and final.

All final grade appeals must be initiated by the student within thirty (30) calendar days of the grade being available via *myMPTC*. The process for a Final Grade Appeal is outlined in the Moraine Park Technical College Student Handbook.

Credit Policy for College National Exams (AP, CLEP, Military)

Advanced Placement (AP): To request that your score report be sent to colleges, call 888-308-0013 (toll free in the United States and Canada) or 609 771-7366.

CLEP: To request CLEP transcripts, call 800-257-9558 (8 a.m. to 6 p.m., ET, Monday-Friday) if ordering with a credit card (American Express, MasterCard or VISA only).

College Credit for Military Service: The American Council on Education collaborates with the U.S. Department of Defense to review military training and experiences and recommend appropriate college credit for members of the Armed Forces. ACE's credit recommendations appear in the Military Guide and on the Joint Services Transcript. More information is available here: [http://www.acenet.edu/higher-](http://www.acenet.edu/higher-education/topics/Pages/College-Credit-for-Military-Service.aspx)

[education/topics/Pages/College-Credit-for-Military-Service.aspx](http://www.acenet.edu/higher-education/topics/Pages/College-Credit-for-Military-Service.aspx). Military personnel should call 877-471-9860 (toll free) or 651-603-3012 to order a military transcript.

SUBJECT	CLEP	AP	CREDIT
English Language	50+	3+	801-136 (3) English Composition I
English Literature	50+	3+	801-136 (3) English Composition I
Government & Politics, U.S.	50+	3+	809-122 (3) Intro to American Government
Human Growth and Development	50+	3+	809-188 (3) Developmental Psychology
Introductory Psychology	50+	3+	809-198 (3) Introduction to Psychology
Introductory Sociology	50+	3+	809-196 (3) Introduction to Sociology
Macroeconomics	50+	3+	809-195 (3) Economics
Microeconomics	50+	3+	809-195 (3) Economics
Biology	50+	4+	806-114 (4) General Biology
Calculus AB (or BC—not both)	50+	4+	804-113 (3) & 804-114 (2) Technical Math 1A and 1B and 804-116 (4) Technical Math 2
Calculus AB (or BC—not both)	50+	3+	804-113 (3) & 804-114 (2) Technical Math 1A and 1B
Chemistry	50+	4+	806-134 (4) General Chemistry
College Algebra	50+	3+	804-195 (3) College Algebra with Applications
College Mathematics	50+	3+	804-107 (3) College Mathematics
Precalculus	50+	3+	804-113 (3) Technical Math 1A & 804-114 (2) Technical Math 1B
Natural Sciences	50+	3+	806-122 (3) Natural Science in Society

Assessment of Student Learning

Assessment is the ongoing process aimed at monitoring and improving student learning by carefully looking at how learners apply knowledge by demonstrating skills and abilities. In order to graduate from a program, Moraine Park requires students to complete an exit assessment that demonstrates their competence in outcomes. Some examples of end of program assessments are: capstone projects or experiences, portfolios, internship, clinical evaluations and/or standardized tests.

Colleges across the country recognized that grades do not give the true picture of what

students know and are able to do. Today's assessment strategies are designed to measure the results of learning (what students can do!), evaluate programs and provide the basis for improving teaching and learning processes. Assessment of student learning is also needed to maintain Moraine Park's accreditation assuring the quality of education meets or exceeds acceptable standards set by the Higher Learning Commission of the North Central Association of Schools.

Core Abilities, as defined by Moraine Park, are transferable skills, knowledge and/or attitudes

essential to an individual's success regardless of occupation or community setting. All occupational programs and General Education courses integrate core abilities into their curriculum. Students develop these seven "core abilities" and are responsible for their application. Graduates have a greater chance of success, because employers prefer to hire and promote individuals who: Work Productively, Demonstrate Integrity, Adapt to Change, Communicate Clearly, Act Responsibly, Think Critically and Creatively and Work Cooperatively.

Graduation Requirements / Graduate Training

Graduation Requirements

Exit Assessment Students accepted into a program after August 2000 will complete an exit assessment for graduation to demonstrate proficiency of program outcomes. Exit assessment requirements vary by program. Students may obtain more exit assessment information by accessing Student Resources on the Student tab of myMPTC.

Residency Students must earn 25 percent of the total program credits toward the program sought at Moraine Park Technical College.

Graduation Application A graduation application form shall be completed during the last semester to identify graduation intent, for every program requested.

GPA Students in all programs are required to achieve a grade point average of 2.0 or better in all attempted credits required in the program. Failure to do so will prevent the student from graduating until such time as the proper level of achievement has been attained.

Honors Recognition of academic excellence will be determined by the cumulative grade point average achieved at the time the degree or technical diploma (minimum 20-credit program) is awarded. Students who achieve **cumulative grade point averages** (GPA) between 3.75 and 4.0 will receive **High Honors**. Students who achieve cumulative grade point averages between 3.5 and 3.74 will receive **Honors**. Honors designations will not be retroactively awarded.

All financial obligations to Moraine Park Technical College must be fulfilled in order to obtain certificate, diploma or degree documentation. An all-College graduation ceremony is conducted once per year in May at the conclusion of the semester. Students are encouraged to attend.

A student must meet graduation requirements as published in the official Moraine Park catalog at the time of matriculation but within five (5) years of matriculation. In the event that a student does not complete graduation requirements within the five-year limit, the student's program curriculum changes to that of the current catalog in effect. Students who are not enrolled in at least one (1) program-required course at Moraine Park for twelve (12) continuous months are required to meet the graduation requirements of the Moraine Park catalog in effect at the time the student résumés enrollment.

Graduate Training

Moraine Park Technical College guarantees up to six credits of additional coursework to graduates of Moraine Park who do not become employed in their program or related area within six months after graduation or whose employer verifies that the graduate does not have entry-level job skills.

A graduate of an associate of applied science degree program or technical diploma program who is a resident of Wisconsin is exempt from tuition and fees for up to six credits within the same occupational program for which the

degree or diploma was awarded. The graduate must apply for the exemption within six months of graduation and any of the following applies:

- An unemployed graduate must provide written verification to the Registrar that certifies all of the following apply:
 1. The graduate has not secured employment in the occupational field in which he or she received the degree or diploma.
 2. The graduate has actively pursued employment in that occupational field.
 3. The graduate has not refused employment in that occupational field or in a related field.
 4. The graduate has actively sought the assistance of the College's Employment Services Office.
- Within 90 days after his or her initial employment, an employed graduate's employer certifies to the Registrar that the graduate lacks entry-level job skills and specifies, in writing, the specific areas in which the graduate's skills are deficient.

Academic Credit Transfer and Articulation

Agreements

Moraine Park Technical College Credit Transfer to Other Higher Education Institutions

A transfer or articulation agreement means that one college agrees to accept courses in transfer from another college as equivalent to specific courses or as meeting specific degree requirements. This agreement is worked out in advance of transfer and applies to any student who meets the transfer agreement requirements. The college or university you wish to attend determines the number of credits that will transfer and if and how they will apply toward your baccalaureate degree. **View additional transfer information online at morainepark.edu/transfer.**

Transfer Credit to University of Wisconsin Green Bay (UWGB) and University of Wisconsin Oshkosh (UWO) Moraine Park's General Studies Transfer Certificate is designed to provide direct transfer between Moraine Park and these universities of Wisconsin. The courses in this certificate also apply to Moraine Park general education requirements.

Graduates of this certificate with a 2.5 overall grade point average may qualify for sophomore status at various University of Wisconsin colleges. Graduates desiring to continue their education at Moraine Park could apply all of the credits earned to a Moraine Park associate of applied science degree program. **View additional transfer information online at morainepark.edu/transfer.**

Transfer of Moraine Park Credit to UW System Schools Students enrolled at Moraine Park Technical College who wish to continue their education in the University of Wisconsin System may be eligible to transfer credits toward a bachelor's degree in several ways.

1. Students may be eligible to transfer up to 21 credits of General Education coursework.
2. Students who have successfully completed an associate of applied science degree may be eligible to transfer technical credits when

there is a direct relationship between the associate of applied science degree program and a program offered at the UW System Institution.

3. Students transferring from Moraine Park may be eligible for credit by earning appropriate scores on national standardized examinations (e.g., College Level Examination Program) or examinations developed by the UW System transfer institution.
4. Students may take advantage of articulation agreements between Moraine Park and specific UW institutions for some programs.
5. Students may also have individual courses evaluated for transferability by UW System staff.
6. Transfer Information System (TIS): The UW Transfer Information System (TIS) provides program and credit transfer information between the University of Wisconsin and the Wisconsin Technical College System. Although the information is intended to be current and accurate, it should NOT be considered a substitute for formal admission or transfer procedures to the individual university. Access TIS online at www.uwsa.edu/tis.

Marian University and Moraine Park Technical College have formed an inclusive partnership, Educational Fusion: The Complete Experience, which will offer a seamless educational transition between the institutions. Students who engage in this partnership may take courses at both institutions, while working toward both their associates and bachelor's degrees. Enrollment in this program can begin at either institution and is available at every enrollment entry point. As part of this partnership, Marian University has articulated a variety of Moraine Park's programs into select bachelor degree options. Although not all programs have specific articulation agreements, most courses taken at Moraine Park will transfer, as long as they are part of a degree program and have a grade of C- or better. **View additional transfer information online at morainepark.edu/transfer.**



■ Student Handbook

Moraine Park publishes the "Student Handbook" yearly. The information contained in the handbook covers a broad range of topics including:

- > Academic Calendar
- > Student Services
- > Student Conduct
- > Appeals Process
- > Student Activities
- > Discrimination Grievance Procedure
- > Family Education Rights & Privacy Act (FERPA)
- > Safety & Security Information

The Student Handbook can be viewed at morainepark.edu/services/studentresources or via *myMPTC*.

Instructional Methods

Accelerated (ACCL)	These classes offer the same content in a condensed time frame. They meet on scheduled dates and times at Moraine Park sites. Assignments and projects require extensive time outside of class. Assignments may be required for the first class. These classes are usually offered once a week so students can take multiple classes in one semester. In ACCL programs students may be expected to follow a sequence of accelerated classes.
Blended (BLD)	These classes are a combination of Online, Interactive Video Conference (IVC) or Telepresence, and Classroom. Coursework is completed both online and in the classroom. For the online work, a computer with Internet access is required. Students use the Moraine Park Learning Management System (LMS) to submit assignments using the Microsoft Office Suite software. Instructors will supply further information during the first class session. Classroom learning will take place either in a classroom at one site or at up to three different sites using the IVC system.
Independent Study (IS)	This is an assigned method of delivering a class (not a program) to a group of enrolled students that numbers less than the minimum required to offer a section. The students will do more of the course activities and assessments on their own in this method of delivery. The number of class meetings for an Independent Study class will be determined by the dean/associate dean. If it is decided that a class will be offered as Independent Study, the students will be informed in advance to the start date of the course providing them an opportunity to withdraw or transfer to another section.
Interactive Video Conference (IVC)	These classes are offered at multiple Moraine Park sites with video and audio interaction through television medium and microphones. These classes meet at scheduled dates and times. Students communicate with the instructor via audio and video technology.
Online (ONL)	These classes are offered via the Internet. A computer with Internet access is required. Students use the Moraine Park Learning Management System (LMS) to submit assignments using the Microsoft Office Suite software. Students have the flexibility to learn where they choose. These classes are not self-paced and have required due dates for assessments and specified start and end dates. Some classes may also require additional software (see course descriptions). Communication with instructors is done using various communications tools within the LMS. Online classes delivered via the Internet will have an additional fee.
Self-Paced Computer Software (SPCS)	This concept means a student may start a class anytime within a semester. Class completion dates are communicated during the face-to-face orientation and are strictly adhered to by the College. If the competencies and components of the class are not satisfactorily completed by the end of the semester, the student will receive an "F" for the class grade. An orientation session is required before beginning SPCS classes.
Self-Paced Open Lab (SPOL)	Within the scheduled open lab. Students choose times to attend class. Required orientation includes lab expectations, testing requirements, class duration (11 weeks, etc.) and other logistics.
Traditional	These classes meet at scheduled meeting dates and times at Moraine Park sites. Instruction is face to face.

Enrollment may limit the campus availability or delivery of certain courses.

Online Education Opportunities

Leading Online Education

Moraine Park students are finding success with their online courses and continue to come back for more. Moraine Park currently has:

- > more than 5,000 online students per year.
- > 22 online programs/certificates.
- > more than 350 online courses per year.
- > a simple online orientation tutorial.

- > technical support 24 hours a day, 7 days a week.
- > dynamic curriculum.

morainepark.edu, Programs & Courses, Online Learning and About Online College.

Are you ready for online?

There are several resources available to Moraine Park students to prepare them for online learning. Visit our Online Learning site at

Minimum Software Requirement

Note: All software requirements are subject to change. Additional specialized software may be required for some courses. See course-specific requirements.

2015-2016 Online Programs and Certificates

Program Number	Title	Type
10-101-1	Accounting	Associate of Applied Science Degree
31-101-1	Accounting Assistant	Technical Diploma
10-102-3	Business Management	Associate of Applied Science Degree
97-307-1	Early Childhood Administrative Credential Certificate	Certificate
97-196-4	Health Care Leadership	Certificate
10-530-1	Health Information Technology (clinical required)	Associate of Applied Science Degree
97-196-1	Human Resource Development Certificate	Certificate
31-152-7	Information Technology - Web Designer/Developer (internship required)	Technical Diploma
10-196-1	Leadership Development	Associate of Applied Science Degree
97-106-4	Legal Office Skills	Certificate
31-530-2	Medical Coding Specialist	Technical Diploma
97-196-3	Organizational Management	Certificate
97-196-2	Principles of Management	Certificate
50-527-1	Wastewater Treatment Plant Operator Apprenticeship	Apprenticeship
10-527-2	Water Quality Technology (internship required)	Associate of Applied Science Degree
97-152-1	Web Site Coordinator	Certificate
97-546-1	Wellness Promotion Certificate	Certificate

All program-required General Education courses are online. Enrollment may limit the campus availability or delivery of certain courses and/or programs.

Notice The programs offered by Moraine Park Technical College, in large part, are based on labor market needs. As labor market needs change, courses within the programs may also change, new program offerings are developed and less in-demand programs may be discontinued in order to respond effectively to business, industry and the community. As a result, information in this catalog is correct at the time of printing but may change. Prospective students are advised to verify information with the Admissions Office at Moraine Park before enrolling or completing admission.

This catalog is not to be considered, in any way, a contractual agreement between the Moraine Park Technical College District and the student. The District administration reserves the right to change curricula, regulations and course offerings as published in this catalog during the period of any student's attendance.

International Education

Moraine Park Technical College is committed to providing international education opportunities for its students. In alignment with its Mission Statement and Core Abilities, the College encourages students to experience international cultures through study abroad opportunities. Students who participate in a study abroad experience gain global awareness and cultural understanding of the industry and community in an increasingly connected world. These experiences place students in environments where they adapt to change, communicate clearly, and think critically and creatively as they engage not only in possible coursework but also common, day-to-day activities in other cultures.

Visit with any of our students who have traveled, and they will share how they've gained a greater awareness of educational, historical and social systems of other cultures.

Benefits of International Education

- Interact with people who hold different world views
- Identify and relate to differences in the workplace
- Gain knowledge of other cultures while seeing one's home culture differently
- Adapt to change and new systems, from transportation to markets, menus and customs
- Prepare for a workforce where companies have offices on other continents

Examples of Opportunities

- Spend spring break in Jamaica: Over spring break, students participate in a service-learning project related to Nursing and Health Education in rural Jamaica.
- Wisconsin-Darmstadt exchange: In May, students travel to Germany where German families host the students. In October, College staff and students host German students in their home. This educational experience includes academic and cultural components.
- Belize in early summer. In May, students learn about the geography, history, and culture of Belize and the Central American region and complete hands-on work with renewable energy systems for the rural developing world.
- Learn about business in Ireland. In early summer, students visit historical sites, attend lectures by top Irish instructors, and participate in company visits to receive a "behind the scenes" look at Irish business.
- London and Paris. In May, students travel to these beautiful cities to learn about business and Human Resources practices in England and France.

International Education opportunities are available to all MPTC students and students may qualify for funding opportunities. For example, Boren Awards include scholarships for undergraduate students that provide unique funding opportunities for U.S. students to add an important international and language component to their educations. Boren Awards focus on

geographic areas, languages, and fields of study that are critical to U.S. interests and underrepresented in study abroad.

Students interested in learning more about International Education or Study Abroad opportunities should contact the dean of General Education at 920-924-3163 or international@morainepark.edu, review the International Education blog accessible through the Blogger link on the Moraine Park Technical College home page, or visit the International Education website at morainepark.edu/international.

Service-Learning

Moraine Park Technical College is committed to community engagement and student success. One way the College supports these commitments is through the opportunity for students to participate in service-learning experiences. These experiences enhance students' résumés with community-based learning that promotes the value of civic responsibility and community involvement while they work on their program degree at MPTC. As students apply their classroom learning to an applicable, real-world environment, they reflect on the experience and the relevance of their education to the day-to-day practices of a community agency. Most service-learning opportunities for students align with community non-profit agencies.

For more information on Service-Learning, contact the dean of General Education at 920-924-3163.

General Education

As indicated in Wisconsin Technical College System documentation, General Education provides a core of knowledge that supports common skills, intellectual concepts and professional attitudes that an educated person should possess. General Education provides instruction in essential skills required for success in careers, at home, in a community and in society. Employers, employees and educators identify particular skills, concepts and attitudes that are evident in an educated person through a variety of academic, social and personal indicators. These attributes include responsibility for self, effective communication skills, applied critical thinking and problem-solving abilities, ethical decision-making processes, global awareness, inclusive actions, awareness of mathematical principles and knowledge of scientific and technological advancements.

To fulfill this expectation as stated through the Wisconsin Technical College System, Moraine Park Technical College requires 21 hours of general education for those students completing the associate of applied science degree.

Depending on the program, a combination of the following content areas will apply to the degree. Please consult with an academic advisor to ensure enrollment in the appropriate program-related general education courses. These courses offer analysis and application in relation to an educated individual functioning in both occupational and community settings.

Communication: English composition, oral and interpersonal communication, technical reporting, speech, etc. - 6 credits required

Social Science: Sociology, economics, ethics, introduction to diversity studies, etc. - 3 credits required

Behavioral Science: Introduction to psychology, psychology of human relations, developmental psychology, abnormal psychology, etc. - 3 credits required

Math and/or Science: College mathematics, college technical math, general chemistry, microbiology, general anatomy and physiology, etc. - 3+ credits required

General Education electives: From any general education category - 6+ credits required

Note: There are two institutional requirements for all associate of applied science degrees housed in the General Education division: a first-semester, two-credit College 101 course (890-101) and Introduction to Ethics: Theory and Application (809-166).

In addition to information related to general education requirements, the Dean of General Education can also provide information related to service-learning and study abroad opportunities.

The dean of General Education can be reached at 920-924-3163.



Programs of Study

ABC Carpentry Apprenticeship	40-41	Die Design Certificate	63	Interactive Media Design -	
ABC Construction Electrician		Digital Marketing	28	Animation	32
Apprenticeship	41	Digital Marketing/Social Media Certificate	28	Interactive Media Design - Motion	
Accounting	25	Early Childhood Administrative Credential		Graphics	32-33
Accounting Assistant	25	Certificate	51-52	Leadership Development	33
Administrative Professional	25-26	Early Childhood Education	52	Legal Administrative Professional	55
Advanced Emergency Medical Technician	48	Early Childhood Inclusion Credential		Legal Office Skills Certificate	55
Advanced Industrial Maintenance		Certificate	52	LPN to ADN Progression Track	55-56
Certificate	62	Early Childhood Mentor/Protégé		Mechanical Design Technology	38-39
Advanced Office Software Suite		Certificate	52-53	Medical Assistant	56
Certificate	26	Early Childhood Preschool Credential		Medical Billing Specialist Certificate	56
Agribusiness Science and Technology	41-42	Certificate	53	Medical Coding Specialist	56-57
Air Conditioning, Heating and		Electrical Power Distribution	43-44	Medical Laboratory Technician	57
Refrigeration Technology (HVAC/R)	42	Electrical Substation Certificate	44	Medical Office Specialist	57-58
Alcohol and Other Drug Abuse		Electricity	44	Metal Fabrication	64
Associate (AODA)	48-49	Electromechanical Technology	38	Mold Design Certificate	64
Alcohol and Other Drug Abuse Certification		Electronic Publishing Certificate	28	Nail Technician Certificate	37
Preparation Certificate	49	Emergency Medical Technician	53	Nursing Assistant	58
Artisan Baking Certificate	35	Emergency Medical Technician -		Nursing - Associate Degree With a	
Automotive Sales Certificate	26	Paramedic	53	Practical Nursing Exit Point	58
Automotive Technician	42-43	Entrepreneurship Certificate	28-29	Office Assistant	33
Automotive Technology	43	Fabrication Technologies	63-64	Office Software Suite Certificate	33-34
Basic Industrial Maintenance		Food Service Production	36-37	Organizational Management Certificate	34
Certificate	62	Global Studies Certificate	47	Paralegal (Offered through Lakeshore	
Business Management - Management		Graphic Communications	29	Technical College)	58-59
and Supervision	26-27	Health Care Leadership Certificate	53-54	Paramedic Technician	59
Business Management - Marketing	27	Health Information Technology	54	Pharmacy Technician (shared)	59-60
Business Management - Small Business		Hotel/Hospitality Management		Phlebotomy Technician Certificate	60
Entrepreneurship	27-28	(shared)	37	Principles of Management Certificate	34
Child Care Services	49	Human Resource Development		Process Engineering Technology -	
Chiropractic Specialist	49-50	Certificate	29	Industrial/Manufacturing	39
Chiropractic Technician: Office Certificate	50	Human Resources	29-30	Process Engineering Technology -	
Chiropractic Technician: Radiography		HVAC Installation Technician	44-45	Quality Assurance	39-40
Certificate	50	Individualized Technical Studies	47-48	Professional Communication Certificate	48
Chiropractic Technician: Therapy		Industrial Wiring Certificate	45	Quality/Supervision Certificate	40
Certificate	50	Infant/Toddler Credential Certificate	54-55	Radiography	60
Civil Engineering Technician -		Information Technology - Information		Respiratory Therapist	60-61
Structural	37-38	Security Certificate	30	Surgical Technology	61
CNC Set-Up/Operator Certificate	62	Information Technology - Mobile		Technical Studies - Journeyworker	45
CNC/Tool and Die Technologies	62-63	Applications Developer	30	Tool and Die Technologies	
Commercial Refrigeration Certificate	43	Information Technology - Network		Apprenticeship	65
Computer Numerical Control Certificate	63	Specialist	30	Wastewater Treatment Plant	
Cosmetology	35	Information Technology - Technical		Operator Apprenticeship	45-46
Cosmetology Apprenticeship	35	Support Specialist	31	Water Quality Technology	46
Court Reporting (shared)	50-51	Information Technology - Web		Web Site Coordinator Certificate	34
Criminal Justice - Corrections	51	Designer/Developer	31	Welding	65
Culinary Arts	36	Information Technology - Web		Wellness Promotion Certificate	48
Customer Service Certificate	36	Development and Design Specialist	31-32	Wind Energy Technology (shared)	46-47

Types of Programs

Associate of Applied Science (AAS)	Associate of Applied Science degree programs help you prepare for or advance in a particular occupation or field. Most AAS degrees require 60-70 credits and consist of technical studies, general studies and electives. Complete your degree in as little as two years, or attend part-time to fit your schedule. Some or all credits may be applied toward a bachelor's degree program at a four-year college.
Technical Diploma (TD)	Technical Diploma programs help you prepare for a targeted occupation, typically at an entry level. Credit requirements range from 3-70 credits, and many programs offer full- and part-time options. Some credits may be applied to associate of applied science degree programs.
Apprenticeship (A)	Apprenticeships are an earn-while-you-learn program of on-the-job training combined with related classroom instruction for a skilled trade. Both the employer and the apprentice must be contracted with the Bureau of Apprenticeship Standards in order to begin the program. You may find more information on how to apply to any of MPTC's apprenticeship programs by visiting the Bureau of Apprenticeship Standards website http://dwd.wisconsin.gov/apprenticeship/ or by calling 608-266-3332.
Advanced Technical Certificate (ATC)	Advanced Technical Certificates are designed to meet the needs of highly skilled workforce. These programs include a small block of credits (9-12). At least six of these credits are advanced content beyond an earned associate of applied science degree program.
Certificate (C)	Certificate programs include a focused set of courses for skills required in the workplace. Some credits may apply to associate of applied science degree or technical diploma programs or to a bachelor's degree program at a four-year college.

INSTITUTIONAL REQUIREMENTS— College 101 and Computer Literacy

All Associate of Applied Science degrees have institutional requirements, and these institutional requirements include 890-101 College 101 (2 credits) and 103-159 Computer Literacy (1 credit). In addition to being a requirement in the AAS degree, the 890-101 College 101 is also a requirement for technical diplomas.

Certificate students are not required to complete 890-101 College 101 or 103-159 Computer Literacy. Students who have completed a bachelor's or master's degree within five years of starting their program courses will be granted a waiver for 890-101 College 101. Non-program course takers and certificate students will need to take College 101 upon entering a program. They will not be waived from this requirement.

For Computer Literacy, there is a test out option for those students that are confident they are proficient in the competencies of the course. Students may also have the option of using prior course completion if the competencies are similar to the Computer Literacy course. Advisors can provide additional information on this option.



Accounting

Associate of Applied Science Degree: 10-101-1

The Accounting program provides the foundation for individuals to prepare financial statements and record business transactions for all types of business and industry. Coursework trains students in all facets of accounting including financial, cost, payroll, taxes, auditing and computerized systems. Students develop a strong knowledge base of Generally Accepted Accounting Principles (GAAP), accounting procedures and software applications for accounting processes. Using computers, students gain hands-on experience to process financial data into information for reporting, planning, controlling and decision making purposes. Teamwork, communication skills, computer technology, ethical behavior and compliance with GAAP are also emphasized. Graduates find employment in a wide variety of accounting occupations in both the private and public sectors and/or use their training to pursue additional educational goals.

Course Number	Course Title	Credits
Term 1		
101-112	Accounting 1	4
101-138	Data Management, Analysis and Reporting	3
101-141	Payroll Accounting	3
103-159	**Computer Literacy - Microsoft Office	1
801-136	English Composition 1	3
804-107	College Mathematics	3
890-101	**College 101	2
Total		19
Term 2		
101-114	Accounting 2	4
101-134	Introduction to Finance	3
105-160	Business Law	3
801-196	Oral and Interpersonal Communication	3
809-195	Economics	3
Total		16
Term 3		
101-115	Accounting 3	4
101-123	Income Tax Accounting	3
101-125	Cost Management	3
101-130	Quickbooks	3
809-199	Psychology of Human Relations	3
Total		16
Term 4		
101-126	Advanced Cost Management - OR -	3
101-128	Auditing - OR -	3
101-129	Applied Income Tax	3
101-145	Integrated Accounting Applications	3
101-154	Microcomputer Accounting Applications	3

Course Number	Course Title	Credits
101-158	Accounting Capstone	3
809-166	Introduction to Ethics: Theory and Application	3
809-196	Introduction to Sociology	3
Total		18

Total Program Credits and Institutional Requirements 69

Exit Assessment

Completion of 101-158 Accounting Capstone is the exit assessment graduation requirement for the program.

Institutional Requirements

** The credits for 103-159 Computer Literacy - Microsoft Office and 890-101 College 101 are Institutional Requirements for graduation.

Accounting Assistant Technical Diploma:

31-101-1

The Accounting Assistant program prepares students to perform entry-level bookkeeping and accounting work. Graduates may work in a small business and be responsible for all aspects of bookkeeping or work in a larger firm and specialize in a certain area under the supervision of an accountant. The program combines hands-on computer training with accounting concepts and procedures. It serves as a solid foundation for further study in the accounting field. Courses are directly transferrable into Moraine Park's Accounting associate of applied science degree.

Course Number	Course Title	Credits
Term 1		
101-112	Accounting 1	4
101-138	Data Management, Analysis and Reporting	3
101-141	Payroll Accounting	3
103-159	**Computer Literacy - Microsoft Office	1
801-136	English Composition 1	3
804-107	College Mathematics	3
890-101	**College 101	2
Total		19
Term 2		
101-114	Accounting 2	4
101-123	Income Tax Accounting	3
101-154	Microcomputer Accounting Applications	3
105-160	Business Law	3
801-196	Oral and Interpersonal Communication	3
Total		16

Total Program Credits and Institutional Requirements 35

Exit Assessment

Completion of 101-154 Microcomputer Accounting

Applications is the exit assessment graduation requirement for the program.

Institutional Requirements

** The credits for 103-159 Computer Literacy - Microsoft Office and 890-101 College 101 are Institutional Requirements for graduation.

Administrative Professional Associate of Applied Science Degree: 10-106-6

In the age of technology, the role of the administrative assistant has broadened not only to include the administrative and office functions needed to run an organization efficiently but also to possess a solid foundation in the technological equipment that supports these functions.

Moraine Park's Administrative Professional coursework prepares students to provide customer service, produce business communications, manage projects, plan meetings and events, and perform an array of other office responsibilities. Students also develop high-level skills in common software applications such as databases and spreadsheets.

They find employment in industrial/manufacturing, service, educational, insurance, sales, human resources and government settings. Administrative assistants enjoy working with others, have good oral and written communication skills, possess strong organizational skills, and project a professional attitude and image.

Course Number	Course Title	Credits
Term 1		
102-110	Introduction to Business	3
103-159	**Computer Literacy - Microsoft Office	1
106-120	Document Formatting	1
106-163	Database and Spreadsheet Essentials	3
801-136	English Composition 1	3
801-196	Oral and Interpersonal Communication	3
890-101	**College 101	2
Total		16
Term 2		
106-101	Customer Service Essentials	3
106-121	Advanced Document Formatting	1
106-164	Business Applications for Microsoft Office	3
106-182	Document Management	3
196-189	Team Building and Problem Solving	3
804-107	College Mathematics	3
809-196	Introduction to Sociology	3
Total		19

(continued)

Business, Technology and Digital Arts (cont.)

Administrative Professional

(cont.)

Course Number	Course Title	Credits
Term 3		
101-184	Principles of Accounting	3
106-111	Business Communications	3
106-113	Business Publications	3
106-135	Business Technology and Innovation	3
106-181	Document Standards and Expectations	3
809-195	Economics	3
Total		18

Course Number	Course Title	Credits
Term 4		
105-150	Business Practice Firm - OR -	3
105-152	Business Practicum	3
106-142	Business Meeting and Event Planning	3
106-180	Business Protocol	3
809-166	Introduction to Ethics: Theory and Application	3
809-199	Psychology of Human Relations	3
Total		15

Total Program Credits and Institutional Requirements 68

Exit Assessment

A Capstone Project is the exit assessment graduation requirement for the program.

Institutional Requirements

** The credits for 103-159 Computer Literacy - Microsoft Office and 890-101 College 101 are Institutional Requirements for graduation.

Advanced Office Software Suite Certificate

Certificate:

97-103-3

Students in this advanced certificate series gain knowledge and skills in the following office software:

- Advanced word processing
- Advanced spreadsheet, worksheet and workbook
- Advanced database creation and manipulation
- Advanced presentation application
- Linking and embedding capabilities

This ten-credit advanced certificate provides training in advanced Microsoft Office applications, including Word, Excel, Access, PowerPoint and integration between these programs.

The Advanced Office Software Suite Certificate allows students to take associate of applied science degree courses without the time commit-

ment of a full-time program and the credits may later be applied toward a degree or diploma. This certificate complements many Moraine Park degree and diploma programs.

Course Number	Course Title	Credits
Term 1		
103-161	Advanced Microsoft Word	2
103-164	Advanced Microsoft Integration	2
103-183	Advanced Microsoft PowerPoint	2
103-188	Advanced Microsoft Access	2
103-190	Advanced Microsoft Excel	2
Total		10

Automotive Sales Certificate

Certificate:

97-104-2

The Automotive Sales Certificate provides students with the knowledge and skills to be successful in the competitive field of automotive sales. The courses provide in-depth knowledge of the automotive industry and dealership operations, customer relationship management, and sales principles and techniques. The certificate also provides an opportunity to obtain an internship at a local dealership. Current technologies, innovations and ethics are integrated throughout the certificate. This certificate is designed for, however not limited to, professionals with work experience or prior education in a degree program who desire to excel in the automotive sales industry.

Course Number	Course Title	Credits
Term 1		
104-185	Automotive Industry and Dealership Organization	3
104-186	Customer Relationship Management	3
104-187	Automotive Sales Principles and Techniques	3
104-188	Automotive Dealership Internship	3
Total		12

Business Management - Management and Supervision

Associate of Applied Science Degree: 10-102-3

The Business Management program is designed for individuals who are seeking an entry-level, business-related position, pursuing self-employment or seeking a job change or advancement. Students receive a broad background in business fundamentals with specific skills in managing operations, marketing, accounting, supervision and computer software

applications. Teamwork, problem solving, communication skills and ethical behavior are emphasized as well.

Emphasis Description

The Management and Supervision emphasis provides you with the skills and knowledge necessary to be a successful leader in today's fast-changing work environment. The program is designed to train and educate you in supervisory and management skills in service, manufacturing and nonprofit organizations. You will develop skills in leadership, human resources, teamwork, quality, finance, marketing, operations, labor relations/business law, employee training, problem solving and safety. In addition, you will develop communication skills in writing and speaking.

You can also consider:

- Marketing Emphasis
- Small Business Entrepreneurship Emphasis

Course Number	Course Title	Credits
Term 1		
102-110	Introduction to Business	3
102-115	Business Relations	3
103-159	**Computer Literacy - Microsoft Office	1
196-189	Team Building and Problem Solving	3
801-136	English Composition 1	3
804-107	College Mathematics	3
890-101	**College 101	2
Total		18

Course Number	Course Title	Credits
Term 2		
101-184	Principles of Accounting	3
102-120	Principles of Management	3
104-102	Marketing Principles	3
105-160	Business Law	3
801-196	Oral and Interpersonal Communication	3
809-196	Introduction to Sociology	3
Total		18

Course Number	Course Title	Credits
Term 3		
101-134	Introduction to Finance	3
101-138	Data Management, Analysis and Reporting	3
102-124	Business Logistics	3
106-111	Business Communications	3
116-130	Introduction to Human Resources	3
809-166	Introduction to Ethics: Theory and Application	3
Total		18

Course Number	Course Title	Credits
Term 4		
105-140	Business Decision Making	3
105-150	Business Practice Firm - OR -	3
105-151	International Business Practice Firm - OR -	3
105-152	Business Practicum	3
105-158	Personal Brand	2
809-195	Economics	3

(continued)

Business, Technology and Digital Arts (cont.)

Business Management - Management and Supervision (cont.)

Course Number	Course Title	Credits
809-199	Psychology of Human Relations	3
Total		14

Total Program Credits and Institutional Requirements **68**

Exit Assessment

Successful completion of 105-140 Business Decision Making plus one of the following courses: 105-150; 105-151; 105-152 is the exit assessment graduation requirement for this program.

Institutional Requirements

** The credits for 103-159 Computer Literacy - Microsoft Office and 890-101 College 101 are Institutional Requirements for graduation.

Business Management - Marketing

Associate of Applied Science Degree: 10-102-3

The Business Management program is designed for individuals who are seeking an entry-level, business-related position, pursuing self-employment or seeking a job change or advancement. Students receive a broad background in business fundamentals with specific skills in managing operations, marketing, accounting, supervision and computer software applications. Teamwork, problem solving, communication skills and ethical behavior are emphasized as well.

Emphasis Description

The Marketing emphasis is designed to prepare individuals for employment in marketing, sales management and retail management fields. Students will learn current practices and acquire knowledge in marketing fundamentals; management; sales; retail operations; sales force management; and new applications in the art of advertising, promotion and selling.

The coursework combines technical skills with creativity and equips students with the skills to compete in the current industry environment. Successful marketing professionals enjoy working with people, have excellent communication skills and present a professional appearance.

You can also consider:

- Management and Supervision Emphasis
- Small Business Entrepreneurship Emphasis

Course Number	Course Title	Credits
Term 1		
102-110	Introduction to Business	3
103-159	**Computer Literacy - Microsoft Office	1
104-102	Marketing Principles	3
196-189	Team Building and Problem Solving	3
801-136	English Composition 1	3
890-101	**College 101	2
Total		15

Term 2		
101-184	Principles of Accounting	3
102-120	Principles of Management	3
104-140	Integrated Marketing Communications	3
105-160	Business Law	3
801-196	Oral and Interpersonal Communication	3
809-196	Introduction to Sociology	3
Total		18

Term 3		
102-115	Business Relations	3
104-105	Selling	3
104-120	Introduction to Digital Marketing	3
106-111	Business Communications	3
804-107	College Mathematics	3
809-166	Introduction to Ethics: Theory and Application	3
Total		18

Term 4		
104-107	Merchandising Management	3
105-140	Business Decision Making	3
105-150	Business Practice Firm - OR -	3
105-151	International Business Practice Firm - OR -	3
105-152	Business Practicum	3
105-158	Personal Brand	2
809-195	Economics	3
809-199	Psychology of Human Relations	3
Total		17

Total Program Credits and Institutional Requirements **68**

Exit Assessment

Successful completion of 105-140 Business Decision Making plus one of the following courses: 105-150; 105-151; 105-152 is the exit assessment graduation requirement for this program.

Institutional Requirements

** The credits for 103-159 Computer Literacy - Microsoft Office and 890-101 College 101 are Institutional Requirements for graduation.

Business Management - Small Business Entrepreneurship

Associate of Applied Science Degree: 10-102-3

The Business Management program is designed for individuals who are seeking an entry-level, business-related position, pursuing self-employment or seeking a job change or

advancement. Students receive a broad background in business fundamentals with specific skills in managing operations, marketing, accounting, supervision and computer software applications. Teamwork, problem solving, communication skills and ethical behavior are emphasized as well.

Emphasis Description

The Small Business Entrepreneurship emphasis is designed for people interested in exploring the components of small business start-up and operation. Coursework provides new and existing entrepreneurs hands-on training in the areas of business planning, financing, marketing, customer service, financial management and business communications. You can also consider:

- Management and Supervision Emphasis
- Marketing Emphasis

Course Number	Course Title	Credits
Term 1		
102-110	Introduction to Business	3
103-159	**Computer Literacy - Microsoft Office	1
196-189	Team Building and Problem Solving	3
801-136	English Composition 1	3
804-107	College Mathematics	3
890-101	**College 101	2
Total		15

Term 2		
101-184	Principles of Accounting	3
102-120	Principles of Management	3
104-102	Marketing Principles	3
105-160	Business Law	3
801-196	Oral and Interpersonal Communication	3
809-196	Introduction to Sociology	3
Total		18

Term 3		
101-134	Introduction to Finance	3
102-115	Business Relations	3
106-111	Business Communications	3
116-130	Introduction to Human Resources	3
145-185	Entrepreneurship	3
809-166	Introduction to Ethics: Theory and Application	3
Total		18

Term 4		
104-107	Merchandising Management	3
105-150	Business Practice Firm - OR -	3
105-151	International Business Practice Firm - OR -	3
105-152	Business Practicum	3
105-158	Personal Brand	2
145-189	Writing a Small Business Plan	3
809-195	Economics	3
809-199	Psychology of Human Relations	3
Total		17

(continued)

Business, Technology and Digital Arts (cont.)

Business Management - Small Business Entrepreneurship (cont.)

Course Number	Course Title	Credits
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Total Program Credits and Institutional Requirements **68**

Exit Assessment

Successful completion of 102-189 Writing a Small Business Plan plus one of the following courses: 105-150; 105-151; 105-152 is the exit assessment graduation requirement for this program.

Institutional Requirements

** The credits for 103-159 Computer Literacy - Microsoft Office and 890-101 College 101 are Institutional Requirements for graduation.

Digital Marketing

Associate of Applied Science Degree: 10-104-3

The associate of applied science degree in Digital Marketing presents digital marketing courses that utilize digital communication channels such as the Internet, social networks and mobile devices as marketing vehicles to attract and retain customers. Students explore how the traditional marketing fundamentals of product, pricing, promotion and place apply in the digital realm. Students will apply key tactics and technologies to effectively create and implement an innovative marketing plan and strategy.

Course Number	Course Title	Credits
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Term 1		
102-110	Introduction to Business	3
103-159	**Computer Literacy - Microsoft Office	1
104-102	Marketing Principles	3
204-112	Design Fundamentals	3
801-136	English Composition 1	3
804-107	College Mathematics	3
890-101	**College 101	2
Total		18

Term 2		
104-104	Web Research and Analytics	3
104-140	Integrated Marketing Communications	3
152-106	Web Site Design	3
152-109	Search Engine Optimization	3
206-110	Video/Sound Editing	3
801-196	Oral and Interpersonal Communication	3
	- OR -	
801-198	Speech	3
Total		18

Term 3		
101-184	Principles of Accounting	3
104-105	Selling	3
104-110	Global Marketing	3
104-117	Digital Marketing, Public Relations and Social Media	3

Course Number	Course Title	Credits
104-125	Advertising and Social Media Campaign	3
809-196	Introduction to Sociology	3
Total		18

Term 4		
105-140	Business Decision Making	3
105-150	Business Practice Firm	3
	- OR -	
105-151	International Business Practice Firm	3
	- OR -	
105-152	Business Practicum	3
809-166	Introduction to Ethics: Theory and Application	3
809-195	Economics	3
809-198	Introduction to Psychology	3
	- OR -	
809-199	Psychology of Human Relations	3
Total		15

Total Program Credits and Institutional Requirements **69**

Exit Assessment

Successful completion of 104-125 Advertising and Social Media Campaign plus one of the following courses; 105-150, 105-151, 105-152 is the exit assessment graduation requirement for this program.

Institutional Requirements

** The credits for 103-159 Computer Literacy - Microsoft Office and 890-101 College 101 are Institutional Requirements for graduation.

Digital Marketing/Social Media Certificate

Certificate:

97-104-3

The Digital Marketing/Social Media Certificate allows students to gain skillsets used in today's competitive marketing environment. Upon completion of this certificate, a student will be competent to construct and monitor online marketing campaigns. A student will also explore Search Engine Optimization and Web Analytics, two critical elements in marketing decision-making. The coursework combines both creative and analytical thinking to enhance marketing effectiveness.

This certificate allows students to take associate of applied science degree courses without the commitment of a full-time course load. This certificate can also enhance an existing associate of applied science degree. A portion of these credits may also be applied to the Digital Marketing or Business Management-Marketing degree programs.

Course Number	Course Title	Credits
Term 1		
104-120	Introduction to Digital Marketing	3
104-104	Web Research and Analytics	3
104-117	Digital Marketing, Public Relations and Social Media	3
104-125	Advertising and Social Media Campaign	3
Total		12

Electronic Publishing Certificate

Certificate:

97-204-2

This certificate helps students develop beginning-level electronic publishing skills. Students learn the software functions of Adobe Photoshop, Adobe Illustrator and InDesign software. Basic typographic and graphic design techniques are presented as well as an overview to the graphic communications field. This certificate is designed for individuals who are interested in acquiring entry-level skills for the graphic communications field. The coursework appeals to people who enjoy working with computer software and applying these software skills to graphic design projects.

Course Number	Course Title	Credits
Term 1		
103-170	Beginning Photoshop	2
103-174	InDesign	2
111-101	Introduction to Graphic Communication	3
204-100	Imaging Editing	2
204-102	Vector Illustration 1	2
204-111	Typography	3
204-112	Design Fundamentals	3
Total		17

Entrepreneurship Certificate

Certificate:

97-145-1

The Entrepreneurship Certificate is designed for people interested in exploring the components of small business start-up and operation. Coursework provides new and existing entrepreneurs hands-on training in the areas of business planning, financing, marketing, customer service, financial management and business communications.

Course Number	Course Title	Credits
Term 1		
102-110	Introduction to Business	3

(continued)

Business, Technology and Digital Arts (cont.)

Entrepreneurship Certificate

(cont.)

Course Number	Course Title	Credits
102-115	Business Relations	3
103-159	Computer Literacy - Microsoft Office	1
890-101	College 101	2
Total		9

Term 2

101-184	Principles of Accounting	3
145-185	Entrepreneurship	3
145-189	Writing a Small Business Plan	3
Total		9

Total Credits 18

Graphic Communications

Associate of Applied Science Degree:

10-204-3

The Graphic Communications program combines the creativity of graphic design and the technology of digital media to prepare graduates for careers in graphic communications. Emphasis is placed on the use of the graphic design software to generate text, graphics and photos to create digital media for use in newsletters, flyers, display ads, forms, manuals, brochures and Web-based documents. First-year students work primarily online building design and layout skills using a variety of graphic production software. Second-year students continue to develop these skills through hands-on, classroom-based production experiences.

Course Number	Course Title	Credits
Term 1		
103-159	**Computer Literacy - Microsoft Office	1
103-170	Beginning Photoshop	2
103-174	InDesign	2
111-101	Introduction to Graphic Communication	3
204-112	Design Fundamentals	3
801-136	English Composition 1	3
890-101	**College 101	2
Total		16

Term 2

152-107	Graphics for the Web	2
204-102	Vector Illustration 1	2
204-111	Typography	3
204-121	Publishing Principles	2
204-163	Acrobat PDF	2
801-196	Oral and Interpersonal Communication 3 - OR -	3
801-141	Introduction to Mass Communications	3
809-199	Psychology of Human Relations	3
Total		17

Term 3

196-189	Team Building and Problem Solving	3
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Course Number	Course Title	Credits
204-100	Imaging Editing	2
204-134	Design Production and Planning 1	3
204-144	Vector Illustration 2	3
804-107	College Mathematics	3
809-196	Introduction to Sociology	3
Total		17

Term 4

204-116	Digital Graphic Imaging	3
204-168	Design Production and Planning 2: Digital Output	3
204-181	Prepress Process Color	3
809-166	Introduction to Ethics: Theory and Application	3
809-195	Economics	3
Total		15

Total Program Credits and Institutional Requirements 65

Exit Assessment

Successful completion of course 204-168 Design, Production and Planning 2: Digital Output is the exit assessment for the program.

Institutional Requirements

** The credits for 103-159 Computer Literacy - Microsoft Office and 890-101 College 101 are Institutional Requirements for graduation.

Human Resource Development Certificate

Certificate:

97-116-1

This certificate establishes a foundation for developing employee effectiveness by focusing on the supervisor's role in understanding, communicating and implementing organizational policies. Coursework entails: employment law; skills and tools to enhance employee performance, motivation and development; and workplace safety and health programs.

This certificate allows students to take associate of applied science degree courses without the time commitment of a full-time program—the credits can later be applied toward the Human Resources associate of applied science degree if the student desires. In addition, graduates or students currently enrolled in a program may find they have already completed some of the certificate's requirements.

These classes are offered in the accelerated format and are designed for employed adults. Classes meet for six weeks, four hours per week. Extensive out-of-class work is required. Courses in this certificate can be customized for on-site company training.

Course Number	Course Title	Credits
Term 1		
196-134	Legal Issues in the Workplace	3
196-136	Safety in the Workplace	3
196-193	Human Resource Management	3
Total		9

Human Resources

Associate of Applied Science Degree:

10-116-1

The Human Resources associate of applied science degree prepares you with general skills in communication, human relations and business fundamentals. You will also develop specific skills in the Human Resource areas of recruiting; coordinating the hiring, benefits, and training and orientation process; maintaining personnel records; safety; and planning company special events and functions.

Course Number	Course Title	Credits
Term 1		
102-110	Introduction to Business	3
103-159	**Computer Literacy - Microsoft Office	1
196-189	Team Building and Problem Solving	3
196-193	Human Resource Management	3
801-136	English Composition 1	3
801-196	Oral and Interpersonal Communication	3
890-101	**College 101	2
Total		18

Term 2

101-141	Payroll Accounting	3
106-135	Business Technology and Innovation	3
106-182	Document Management	3
196-136	Safety in the Workplace	3
196-164	Personal Skills for the Workplace	3
809-196	Introduction to Sociology	3
Total		18

Term 3

102-120	Principles of Management	3
116-152	Orientation and Training	3
116-154	Recruiting and Hiring	3
196-134	Legal Issues in the Workplace	3
804-107	College Mathematics	3
809-198	Introduction to Psychology	3
809-199	- OR - Psychology of Human Relations	3
Total		18

Term 4

105-150	Business Practice Firm - OR -	3
105-152	Business Practicum	3
116-151	Employee Relations	3
116-156	Compensation and Benefits	3
809-166	Introduction to Ethics: Theory and Application	3
809-195	Economics	3
Total		15

(continued)

Business, Technology and Digital Arts (cont.)

Human Resources (cont.)

Course Number	Course Title	Credits
Total Program Credits and Institutional Requirements		
		69

Exit Assessment

Completion of checklist/rubric is the exit assessment graduation requirement for the program.

Institutional Requirements

** The credits for 103-159 Computer Literacy - Microsoft Office and 890-101 College 101 are Institutional Requirements for graduation.

Information Technology - Information Security Certificate: 97-150-2

The Information Technology - Information Security Certificate addresses today's needs in security policy development, implementation techniques, intrusion detection and prevention, vulnerabilities, encryption, authentication, compromised networks, and tools to address these topics. Students develop skills to recognize, prevent and respond to network attacks; identify intrusion methods; and use security tools.

Course Number	Course Title	Credits
Term 1		
150-191	Principles of Information Security	3
150-192	Network Security Fundamentals	3
150-193	Network Attacks and Firewalls	3
150-194	Network Defense and Countermeasures	3
Total		12

Information Technology - Mobile Applications Developer Associate of Applied Science Degree: 10-152-8

The Information Technology - Mobile Applications Developer program teaches students entry-level skills to use a variety of specialized development kits for popular mobile platforms, programming and markup language fundamentals, combined with mobile design theory and principles. This program teaches students to create mobile content driven applications used for commercial and non-profit purposes, including skills and business aspects involved in market deployment.

Course Number	Course Title	Credits
Term 1		
103-159	**Computer Literacy - Microsoft Office	1
152-112	Web Coding Technologies	3
152-173	Coding for iOS for Web Application Development	3
152-174	UX/UI Design for iOS for Web Application Development	3
801-136	English Composition 1	3
890-101	**College 101	2
Total		15
Term 2		
152-118	Database-Driven Web Sites	3
152-175	Coding for Android for Web Application Development	3
152-176	UX/UI Design for Android for Web Application Development	3
801-197	Technical Reporting	3
804-107	College Mathematics	3
Total		15
Term 3		
102-105	Employment Skills for IT Professionals	1
150-191	Principles of Information Security	3
152-116	Content Management Systems	3
152-122	Migrating to Native Platforms	3
801-141	Introduction to Mass Communications	3
809-196	Introduction to Sociology	3
Total		16
Term 4		
105-152	Business Practicum	3
152-121	Object-Oriented Programming	3
152-172	Web Site Security	3
152-177	Introduction to VR Applications	3
809-166	Introduction to Ethics: Theory and Application	3
809-198	Introduction to Psychology	3
Total		18
Total Program Credits and Institutional Requirements		64

Exit Assessment

Completion of 152-122 Migrating to Native Platforms is the exit assessment graduation requirement for the program.

Institutional Requirements

** The credits for 103-159 Computer Literacy - Microsoft Office and 890-101 College 101 are Institutional Requirements for graduation.

Information Technology - Network Specialist Associate of Applied Science Degree: 10-150-2

The Information Technology - Network Specialist program prepares students with the skills and knowledge to provide businesses and organizations with computer network support, network installation, network administration,

network design and integration. Coursework also prepares students to acquire nationally recognized industry certification. In order to better meet corporate demands for information sharing, integrated technologies are a major component of the program.

Coursework may be offered in a sequence and time frame to meet the needs of part-time and full-time students. A major strength of the program is instruction based on industry standards and certification. Required courses help prepare students for the Comp TIA A+ certification and the Comp TIA Network+ certification.

Course Number	Course Title	Credits
Term 1		
103-159	**Computer Literacy - Microsoft Office	1
150-101	Network+	3
150-102	Microsoft Workstations	3
801-136	English Composition 1	3
804-107	College Mathematics	3
809-198	Introduction to Psychology - OR -	3
809-199	Psychology of Human Relations	3
890-101	**College 101	2
Total		18
Term 2		
150-120	Microsoft Servers	3
150-122	Virtualization	3
154-113	Help Desk Concepts	3
154-116	Computer Software Support	3
801-141	Introduction to Mass Communications	3
Total		15
Term 3		
150-141	Computer Network Installation	3
150-191	Principles of Information Security	3
154-117	Computer Hardware Support	3
801-197	Technical Reporting	3
809-196	Introduction to Sociology	3
Total		15
Term 4		
150-110	Cloud Computing	3
150-115	Emerging Innovations in Technology	3
150-130	IT Administration	3
154-105	Wireless and Mobile Technology	3
809-166	Introduction to Ethics: Theory and Application	3
809-195	Economics	3
Total		18
Total Program Credits and Institutional Requirements		66

Exit Assessment

Successful completion of 150-130 IT Administration is the exit assessment graduation requirement for the program.

Institutional Requirements

** The credits for 103-159 Computer Literacy - Microsoft Office and 890-101 College 101 are Institutional Requirements for graduation.

Business, Technology and Digital Arts (cont.)

Information Technology - Technical Support Specialist Associate of Applied Science Degree: 10-154-4

Moraine Park's Information Technology - Technical Support Specialist program provides students with the skills to support microcomputer systems and their users in both stand-alone and network environments. Coursework offers both the theoretical and hands-on training to perform a variety of computer functions such as installing hardware and software, troubleshooting and repairing, providing computer and system maintenance, and having the knowledge of common software applications to assist others.

People working in this field require skills in communication, time management and organization, as well as mobility and a willingness to work long hours. They also need to be detail-oriented and be able to prioritize their work and have a desire to learn new things. Typical jobs include supporting the end user, setting up new computers, troubleshooting/repairing computers, staffing a help desk, training individuals and writing procedures. Advanced standing for skills gained through work experience is possible. Leads toward A+ certification.

Course Number	Course Title	Credits
Term 1		
103-159	**Computer Literacy - Microsoft Office	1
150-101	Network+	3
150-102	Microsoft Workstations	3
801-136	English Composition 1	3
809-198	Introduction to Psychology	3
	- OR -	
809-199	Psychology of Human Relations	3
890-101	**College 101	2
Total		15
Term 2		
150-120	Microsoft Servers	3
154-113	Help Desk Concepts	3
154-116	Computer Software Support	3
801-141	Introduction to Mass Communications	3
801-197	Technical Reporting	3
809-196	Introduction to Sociology	3
Total		18
Term 3		
150-141	Computer Network Installation	3
154-115	Training and Development in Office Systems	3
154-122	Introduction to MAC	3
196-188	Project Management	3
804-107	College Mathematics	3
Total		15

Course Number	Course Title	Credits
Term 4		
150-115	Emerging Innovations in Technology	3
150-130	IT Administration	3
154-117	Computer Hardware Support	3
809-166	Introduction to Ethics: Theory and Application	3
809-195	Economics	3
Total		15

Total Program Credits and Institutional Requirements 63

Exit Assessment

Successful completion of 154-117 Computer Hardware Support and attempt at the A+ Certification exams in 154-116 Computer Software Support and 154-117 Computer Hardware Support is the exit assessment graduation requirement for the program.

Institutional Requirements

** The credits for 103-159 Computer Literacy - Microsoft Office and 890-101 College 101 are Institutional Requirements for graduation.

Information Technology - Web Designer/Developer Technical Diploma: 31-152-7

The Information Technology - Web Designer/Developer program teaches students to use a variety of software, programming and markup languages combined with web design principles to create websites used for marketing and e-commerce.

Graduates may work in positions as webmasters, web designers, web developers and website developer consultants/entrepreneurs.

Individuals may be employed in a wide range of companies that are interested in using the Internet to market and/or sell their products or services. Graduates may be employed by a consulting firm that provides web design, development and maintenance as a contracted service to businesses and industries or start their own business.

The courses from this program can be directly transferred into Moraine Park's Information Technology - Web Development and Design Specialist associate of applied science degree.

Course Number	Course Title	Credits
Term 1		
103-159	**Computer Literacy - Microsoft Office	1
152-106	Web Site Design	3
152-107	Graphics for the Web	2

Course Number	Course Title	Credits
152-112	Web Coding Technologies	3
152-119	Web Designer/Developer Concepts	2
801-136	English Composition 1	3
890-101	**College 101	2
Total		16

Term 2		
152-113	Web Programming Technologies	3
152-114	CSS Technologies	3
152-115	Design/Implementation/Maintenance Workflow	3
152-118	Database-Driven Web Sites	3
Total		12

Term 3		
152-117	Emerging Web Technologies and Trends	1
152-120	Web Developer Internship	3
152-124	e-Commerce: Designing and Marketing Web Sites	3
204-112	Design Fundamentals	3
801-197	Technical Reporting	3
Total		13

Total Program Credits and Institutional Requirements 41

Exit Assessment

An Internship is the exit assessment graduation requirement for the program.

Institutional Requirements

** The credits for 103-159 Computer Literacy - Microsoft Office and 890-101 College 101 are Institutional Requirements for graduation.

Information Technology - Web Development and Design Specialist Associate of Applied Science Degree: 10-152-2

The Information Technology - Web Development and Design Specialist program will give students the skills to create and maintain professional, high quality, responsive designed websites. Coding and programming technologies such as cascading style sheets (CSS), HTML, JavaScript, PHP, jQuery, MySQL, and XML will be covered. In addition, skills are gained in using industry standard development software and tools such as Adobe Products, Content Management Systems, FTP software, and major and emerging open source tools.

Course Number	Course Title	Credits
Term 1		
103-159	**Computer Literacy - Microsoft Office	1
152-106	Web Site Design	3
152-107	Graphics for the Web	2

(continued)

Business, Technology and Digital Arts (cont.)

Information Technology - Web Development and Design Specialist (cont.)

Course Number	Course Title	Credits
152-112	Web Coding Technologies	3
152-119	Web Designer/Developer Concepts	2
801-136	English Composition 1	3
890-101	**College 101	2
Total		16

Term 2		
152-113	Web Programming Technologies	3
152-114	CSS Technologies	3
152-115	Design/Implementation/Maintenance Workflow	3
152-118	Database-Driven Web Sites	3
801-197	Technical Reporting	3
804-107	College Mathematics	3
Total		18

Term 3		
152-116	Content Management Systems	3
152-117	Emerging Web Technologies and Trends	1
152-124	e-Commerce: Designing and Marketing Web Sites	3
204-112	Design Fundamentals	3
801-141	Introduction to Mass Communications	3
809-196	Introduction to Sociology	3
Total		16

Term 4		
152-120	Web Developer Internship	3
152-121	Object-Oriented Programming	3
152-172	Web Site Security	3
809-166	Introduction to Ethics: Theory and Application	3
809-198	Introduction to Psychology	3
Total		15

Total Program Credits and Institutional Requirements 65

Exit Assessment

Completion of 152-120 Web Developer Internship is the exit assessment graduation requirement for this program.

Institutional Requirements

** The credits for 103-159 Computer Literacy - Microsoft Office and 890-101 College 101 are Institutional Requirements for graduation.

Interactive Media Design - Animation

Associate of Applied Science Degree: 10-206-4

Interactive Media Design program students develop knowledge and skills to design and manipulate graphics, animations, sound, text and video into multimedia presentations used in developing products or creating advanced

business presentations. Program graduates will be capable of creating animated and live videos, virtual worlds and commercials, applications used in mobile devices and touch screen kiosks, digital signage and other Web-based media.

This program is ideal for individuals seeking entry-level careers as interactive multimedia designers and animators or for those who are already working as Web developers, graphic designers and artists who are seeking to update and expand their skills. The program includes alternative courses. The Animation emphasis, for those having strong artistic talent, involves conceiving and designing two- and three-dimensional images and manipulating characters to interact with audio and video elements while the Motion Graphics emphasis includes courses that focus on animated graphics.

Course Number Course Title Credits

Term 1

103-159	**Computer Literacy - Microsoft Office	1
152-106	Web Site Design	3
204-100	Imaging Editing	2
204-102	Vector Illustration 1	2
206-104	Interactive Design and Authoring	3
206-106	Introduction to the Interactive Media Industry	1
207-122	Basic Drawing for Animation	3
890-101	**College 101	2
Total		17

Term 2

152-107	Graphics for the Web	2
206-108	Motion/Visual Effects	2
206-110	Video/Sound Editing	3
207-124	Animation 1	3
207-126	Introduction to 3-D Animation	2
801-136	English Composition 1	3
804-107	College Mathematics	3
Total		18

Term 3

206-114	Flash Animation Application	3
207-128	3-D Animation 2	3
207-130	Animation 2	3
801-196	Oral and Interpersonal Communication	3
809-166	Introduction to Ethics: Theory and Application	3
809-198	Introduction to Psychology	3
Total		18

Term 4

206-118	Designing for Mobile Applications	3
206-120	Team Production	3
207-132	Virtual Worlds and Game Applications	3
207-136	Advanced Image Manipulation (2D) - OR -	3
207-138	Introduction to Maya (3D)	3
801-198	Speech	3
809-195	Economics	3
Total		18

Course Number Course Title Credits
Total Program Credits and Institutional Requirements 71

Exit Assessment

Successful completion of a capstone project is the exit assessment graduation requirement for this program.

Institutional Requirements

** The credits for 103-159 Computer Literacy - Microsoft Office and 890-101 College 101 are Institutional Requirements for graduation.

Interactive Media Design - Motion Graphics

Associate of Applied Science Degree: 10-206-4

Interactive Media Design program students develop knowledge and skills to design and manipulate graphics, animations, sound, text and video into multimedia presentations used in developing products or creating advanced business presentations. Program graduates will be capable of creating animated and live videos, virtual worlds and commercials, applications used in mobile devices and touch screen kiosks, digital signage and other Web-based media.

This program is ideal for individuals seeking entry-level careers as interactive multimedia designers and animators or for those who are already working as Web developers, graphic designers and artists who are seeking to update and expand their skills. The program includes alternative courses. The Animation emphasis, for those having strong artistic talent, involves conceiving and designing two- and three-dimensional images and manipulating characters to interact with audio and video elements while the Motion Graphics emphasis includes courses that focus on animated graphics.

Course Number Course Title Credits

Term 1

103-159	**Computer Literacy - Microsoft Office	1
152-106	Web Site Design	3
204-100	Imaging Editing	2
204-102	Vector Illustration 1	2
206-104	Interactive Design and Authoring	3
206-106	Introduction to the Interactive Media Industry	1
207-122	Basic Drawing for Animation	3
890-101	**College 101	2
Total		17

Term 2

152-107	Graphics for the Web	2
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Business, Technology and Digital Arts (cont.)

Interactive Media Design - Motion Graphics (cont.)

Course Number	Course Title	Credits
204-112	Design Fundamentals	3
206-108	Motion/Visual Effects	2
206-110	Video/Sound Editing	3
207-126	Introduction to 3-D Animation	2
801-136	English Composition 1	3
804-107	College Mathematics	3
Total		18

Term 3		
204-116	Digital Graphic Imaging	3
206-122	Video Camera and Lighting Techniques	3
207-128	3-D Animation 2	3
801-196	Oral and Interpersonal Communication	3
809-166	Introduction to Ethics: Theory and Application	3
809-198	Introduction to Psychology	3
Total		18

Term 4		
206-118	Designing for Mobile Applications	3
206-120	Team Production	3
206-126	Post Production	3
207-132	Virtual Worlds and Game Applications	3
801-198	Speech	3
809-195	Economics	3
Total		18

Total Program Credits and Institutional Requirements 71

Exit Assessment

Successful completion of a capstone project is the exit assessment graduation requirement for this program.

Institutional Requirements

** The credits for 103-159 Computer Literacy - Microsoft Office and 890-101 College 101 are Institutional Requirements for graduation.

Leadership Development

Associate of Applied Science Degree:

10-196-1

The Leadership Development program offers training in leadership; human relations; budgeting; quality, legal and safety issues; problem solving and team building; and diversity and change management. The role of the traditional supervisor is changing, and the new supervisor must be able to balance employee participation with the need to meet established goals.

This program is offered in an accelerated format and is designed for employed adults. Each class runs six weeks and meets once each week for four hours. Courses are offered at all three campuses with sections available mornings, evenings and online. Core courses are offered at

scheduled times, while support, general studies and elective courses may be taken at any time. Extensive out-of-class work is required. Courses within the program can be customized for on-site company training.

Course Number	Course Title	Credits
Term 1		
102-110	Introduction to Business	3
103-159	**Computer Literacy - Microsoft Office	1
196-189	Team Building and Problem Solving	3
196-191	Supervision	3
801-136	English Composition 1	3
804-107	College Mathematics	3
890-101	**College 101	2
Total		18

Term 2		
103-180	Microsoft Excel	2
196-164	Personal Skills for the Workplace	3
196-190	Leadership Development	3
196-193	Human Resource Management	3
801-196	Oral and Interpersonal Communication 3 - OR -	
801-198	Speech	3
Total		14

Term 3		
196-134	Legal Issues in the Workplace	3
196-136	Safety in the Workplace	3
196-168	Organizational Development	3
196-169	Diversity and Change Management	3
809-198	Introduction to Psychology - OR -	
809-199	Psychology of Human Relations	3
Total		15

Term 4		
196-188	Project Management	3
196-192	Managing for Quality	3
196-196	Leadership Capstone	3
809-166	Introduction to Ethics: Theory and Application	3
809-195	Economics	3
809-196	Introduction to Sociology	3
Total		18

Total Program Credits and Institutional Requirements 65

Exit Assessment

Completion of 196-196 Leadership Capstone is the exit assessment graduation requirement for the program.

Institutional Requirements

** The credits for 103-159 Computer Literacy - Microsoft Office and 890-101 College 101 are Institutional Requirements for graduation.

Office Assistant

Technical Diploma:

31-106-1

Moraine Park's Office Assistant program is designed to provide individuals with the skills

to perform fundamental office functions in a variety of business settings. The coursework trains students to use advanced word processing skills, produce business documents, maintain and retrieve files/records, perform basic accounting functions, create spreadsheets and databases, and provide customer service.

Most of the courses from this program can be directly transferred into Moraine Park's Administrative Professional and Legal Administrative Professional associate of applied science degrees should students choose to continue their education.

Note: Individuals with keyboarding experience may elect to obtain advanced standing credit for the Keyboarding course (106-103) by successfully meeting the requirements through a timed test provided at the College.

Course Number	Course Title	Credits
Term 1		
103-159	**Computer Literacy - Microsoft Office	1
106-101	Customer Service Essentials	3
106-120	Document Formatting	1
106-163	Database and Spreadsheet Essentials	3
106-181	Document Standards and Expectations	3
801-136	English Composition 1	3
890-101	**College 101	2
Total		16

Term 2		
101-184	Principles of Accounting	3
106-121	Advanced Document Formatting	1
106-135	Business Technology and Innovation	3
106-164	Business Applications for Microsoft Office	3
106-182	Document Management	3
196-189	Team Building and Problem Solving	3
Total		16

Total Program Credits and Institutional Requirements 32

Exit Assessment

Completion of 106-164 Business Applications for Microsoft Office and 106-182 Document Management are the exit assessment graduation requirements for the program.

Institutional Requirements

** The credits for 103-159 Computer Literacy - Microsoft Office and 890-101 College 101 are Institutional Requirements for graduation.

Office Software Suite Certificate

Certificate:

97-103-2

Students in this certificate series gain knowledge and skills in the following office software:

(continued)

Business, Technology and Digital Arts (cont.)

Office Software Suite Certificate (cont.)

- Windows
- Word processing
- Database
- Spreadsheet
- Presentation graphics
- Linking and embedding capabilities

This nine-credit certificate provides training in Microsoft Windows operating system, Word, Access, Excel and PowerPoint software packages, as well as entry-level integration of these applications.

Office Software Suite allows students to take associate of applied science degree courses without the time commitment of a full-time program; the credits can later be applied toward a degree or diploma if the student desires. Students may also find that this certificate complements many Moraine Park degree and diploma programs. In addition, graduates or students may find they have already completed some of the certificate's requirements.

Course Number	Course Title	Credits
Term 1		
103-160	Microsoft Word	2
103-180	Microsoft Excel	2
103-181	Microsoft Access	2
103-182	Microsoft PowerPoint	2
103-189	Microsoft Windows	1
Total		9

Organizational Management Certificate

Certificate:
97-196-3

This certificate focuses on the organization of an office or business and project management and quality issues.

Coursework develops skills to manage staff behaviors and design processes, analyze problems and create solutions to manage projects, and gain knowledge of concepts and tools to improve quality.

This certificate allows students to take associate of applied science degree courses without the time commitment of a full-time program—the credits can later be applied toward a degree or diploma if the student desires. In addition,

graduates or students currently enrolled in a program may have already completed some of the certificate's requirements.

These classes are offered in the accelerated format and are designed for employed adults. Classes meet for six weeks, four hours per week. Extensive out-of-class work is required.

Courses in this certificate can be customized for on-site company training.

Course Number	Course Title	Credits
Term 1		
196-168	Organizational Development	3
196-188	Project Management	3
196-192	Managing for Quality	3
Total		9

Principles of Management Certificate

Certificate:
97-196-2

This certificate develops students' management and leadership skills. These five, three-credit classes provide supervisors and those who want to be supervisors the tools to be more effective. Students study and apply various management concepts, such as leadership skills and styles, motivation, conflict resolution and team building.

This certificate allows students to take associate of applied science degree courses without the time commitment of a full-time program—the credits can later be applied toward a degree if the student desires. In addition, graduates or students currently enrolled in a program may find they have already completed some of the certificate's requirements.

These classes are offered in the accelerated format and are designed for employed adults. Classes meet for six weeks, four hours per week. Extensive out-of-class work is required.

Courses in this certificate can be customized for on-site company training.

Course Number	Course Title	Credits
Term 1		
196-164	Personal Skills for the Workplace	3
196-169	Diversity and Change Management	3
196-189	Team Building and Problem Solving	3

Course Number	Course Title	Credits
196-190	Leadership Development	3
196-191	Supervision	3
Total		15

Web Site Coordinator Certificate Certificate:

97-152-1

The Web Site Coordinator Certificate offers students the opportunity to develop basic skills that enable them to design, develop and maintain Internet web sites. Coursework introduces students to design software, electronic imaging, web site coding, and design and development processes to support the marketing functions of a business.

This certificate allows students to take technical diploma courses without the time commitment of a full-time program. The credits can be applied toward the Information Technology - Web Designer/Developer program if the student desires.

Course Number	Course Title	Credits
Term 1		
152-106	Web Site Design	3
152-107	Graphics for the Web	2
152-112	Web Coding Technologies	3
152-115	Design/Implementation/Maintenance Workflow	3
152-119	Web Designer/Developer Concepts	2
Total		13

Artisan Baking Certificate

Certificate:
97-316-5

The Artisan Baking Certificate is designed for individuals seeking to acquire or desiring to upgrade skills in the production of quality, scratch-baked goods. Students learn the specialized skills in mixing and handling artisan breads (including sourdoughs), high-end tortes and breakfast pastries. Emphasis is on the use of wholesome ingredients for hotel, restaurant or bakery operations.

The Nutrition, Sanitation and Safety, and Baking courses can be applied directly into Moraine Park's Culinary Arts associate of applied science degree if students wish to continue their education. Students and graduates who want specialized training in Artisan Baking may have already completed several of the certificate courses.

Course Number	Course Title	Credits
Term 1		
316-121	Nutrition	2
316-147	Sanitation and Safety	2
316-160	Baking	2
316-162	Breakfast Pastries	2
Total		8
Term 2		
316-168	Artisan Breads	3
316-169	Cakes, Tortes and Desserts	2
Total		5
Total		13

Cosmetology

Technical Diploma:
31-502-1

What's the perfect path for students with a strong sense of personal style, artistic creativity and passion for working with people? Moraine Park's Cosmetology technical diploma is a 12-month program that prepares graduates for the state Cosmetology Licensing Exam. Students begin by learning classroom theory and fundamental skill development. Then students are able to apply their skills on clients in a professional salon environment, providing hair, skin and nail services. Students also attend area beauty shows and hear guest presentations from industry artists.

This career requires the stamina to stand for longer periods to perform salon services. Class attendance is crucial to student success.

Program start dates are scheduled for August and January each academic year. (Classes run Monday - Friday.)

Students must be accepted into the program prior to enrolling in the courses. All fees must be paid prior to program start. Class size is limited to the first 20 paid students. Early enrollment is encouraged. Students are strongly encouraged to get on the waiting list, if necessary. As class space becomes available, wait-list students are offered the spots. See an academic advisor for more information.

Cosmetology is accredited or approved by the Department of Safety and Professional Services.

Course Number	Course Title	Credits
Term 1		
103-159	**Computer Literacy - Microsoft Office	1
502-304	Hairstyling, Shampooing and Scalp Treatment	2
502-311	Haircutting, Basic Forms	2
502-334	Permanent Wave Techniques	2
502-347	Hair Color and Lightening	2
890-101	**College 101	2
Total		11
Term 2		
502-300	Professional Practices	2
502-302	Hairstyling, Basic Techniques	2
502-312	Haircutting Techniques	1
502-336	Chemical Services and Properties of the Hair	1
502-338	Electricity and Chemistry	1
502-348	Highlighting and Corrective Color	1
Total		8
Term 3		
502-309	Nail Care	1
502-313	Short and Trend Cuts	1
502-332	Facials/Skin Structure and Its Disorders	2
502-341	Salon Services 1	2
	Basic Math Proficiency (Term 3 or 4)	
Total		6
Term 4		
502-318	Artificial Nails	1
502-342	Salon Services 2	4
502-356	Laws and Rules	1
502-381	Salon Operations	1
Total		7
Term 5		
502-343	Salon Services 3	5
502-355	Anatomy and Book Final	1
801-310	Occupational Communication	2
Total		8
Total Program Credits and Institutional Requirements		40

Exit Assessment

The Mock State Board Exam is the exit assessment graduation requirement for the program.

Institutional Requirements

** The credits for 103-159 Computer Literacy - Microsoft Office and 890-101 College 101 are Institutional Requirements for graduation.

Cosmetology Apprenticeship

Apprenticeship:
50-502-1

Cosmetologists cut, trim, shampoo and style hair. They advise patrons on how to care for their hair, straighten, permanent wave and apply color. In addition, most cosmetologists are trained to give manicures, pedicures, and scalp and facial treatments; provide makeup analysis; and clean and style wigs and hair-pieces. Cosmetologists generally work in clean, pleasant surroundings with good lighting and ventilation. Good health and stamina are important because much of the workday will be spent standing. The cosmetologist works with current fashion trends to create a total look for today's men, women and children. Cosmetologists also need to stay current with the laws and regulations governing business operation, sanitation and safety.

Cosmetology is accredited or approved by the Department of Safety and Professional Services.

Course Number	Course Title	Credits
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Required courses:

Three semester program; One class per semester		
502-501	Shampooing, Cutting, Styling and Permanent Waving	3
502-502	Relaxing, Coloring, Nails and Skin	3
502-503	Health, Image, Structure and Law	3
Total Hours/Credits		9

A state of Wisconsin Licensing Exam is required.

Based on Moraine Park's curriculum design, actual program hours will be delivered at 324 hours. The state has required a minimum of 288 hours paid-related instruction.

Students will begin the semester directly following their indenture date. There are no prerequisites.

Related Electives (unpaid related)

455-455	*Transition to Trainer, Your Role as a Journey Worker	.20
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*Required

For apprenticeship application information, please contact a Bureau of Apprenticeship Standards Representative at 262-335-5326.

Exit Assessment

The Mock State Board Exam is the exit assessment graduation requirement for the program.

Consumer and Hospitality Services (cont.)

Culinary Arts

Associate of Applied Science Degree:

10-316-1

The Culinary Arts program offers students many opportunities to enter and advance in the hospitality industry. Students receive hands-on, practical experience in all aspects of food preparation and production. Coursework begins with food preparation techniques and progresses through the development of management skills related to the operation of a food service business.

The food industry has and will continue to have excellent job opportunities. Millions of meals are prepared daily in restaurants, hotels, schools and health care facilities.

Course Number	Course Title	Credits
Term 1		
103-159	**Computer Literacy - Microsoft Office	1
316-102	Culinary Principles	3
316-147	Sanitation and Safety	2
316-160	Baking	2
316-183	Food Production for Vegetables and Potatoes	2
316-184	Food Production for Pastas, Grains and Breakfast Cookery	2
316-185	Food Production for Stocks and Soups	2
316-187	Food Production for Cold Food	2
890-101	**College 101	2
Total		18
Term 2		
316-151	Fundamentals of Meat Analysis	3
316-153	Food Purchasing	2
316-162	Breakfast Pastries - OR -	2
316-169	Cakes, Tortes and Desserts	2
316-168	Artisan Breads	3
316-189	Food Production for Meat, Fish and Poultry	2
316-190	Food Production for Hot Sandwiches, Deli and Short-Order Cookery	2
801-136	English Composition 1	3
Total		17
Term 3		
316-116	Menu Planning, Management and Design	1
316-142	Restaurant Operations	3
316-171	Restaurant Management	3
801-196	Oral and Interpersonal Communication - OR -	3
801-197	Technical Reporting - OR -	3
801-198	Speech	3
804-107	College Mathematics	3
809-195	Economics	3
Total		16

Course Number	Course Title	Credits
Term 4		
316-121	Nutrition	2
316-165	Catering and Special Function Planning	3
316-175	Specialty Foods and Ethnic Cookery	3
316-180	Gourmet Cooking	1
809-166	Introduction to Ethics: Theory and Application	3
809-196	Introduction to Sociology	3
809-198	Introduction to Psychology - OR -	3
809-199	Psychology of Human Relations	3
Total		18

Total Program Credits and Institutional Requirements 69

Exit Assessment

Successful completion of courses 316-175 - Specialty Foods and Ethnic Cookery and 316-180 - Gourmet Cooking are the exit assessment graduation requirements for the program.

Institutional Requirements

** The credits for 103-159 Computer Literacy - Microsoft Office and 890-101 College 101 are Institutional Requirements for graduation.

Customer Service Certificate

Certificate:

97-106-5

This certificate prepares students for entry-level customer service positions such as customer service representative or receptionist.

The coursework offers a foundation in computer skills typically used in customer service careers as well as develops the skills and techniques focused on meeting customer wants and needs.

Individuals interested in this field should enjoy providing information to and resolving issues for customers whether it is in person, using the telephone or on the Internet. They must also enjoy working with a computer to input and access electronic data.

Course Number	Course Title	Credits
Term 1		
106-101	Customer Service Essentials	3
106-120	Document Formatting	1
106-163	Database and Spreadsheet Essentials	3
801-196	Oral and Interpersonal Communication	3
Total		10

Food Service Production

Technical Diploma:

31-303-2

Moraine Park's Food Service Production program provides students with hands-on experience and skills in a broad range of cooking techniques and preparation methods as well as training in baking and work environment safety and sanitation.

Graduates of the program can directly transfer their credits into Moraine Park's Culinary Arts associate of applied science degree if they decide to continue their education.

There is a high demand for graduates in areas such as hospital food service, school and college food service, food contracting companies, the health care industry, retirement communities, and residential care facilities.

Course Number	Course Title	Credits
Term 1		
103-159	**Computer Literacy - Microsoft Office	1
316-102	Culinary Principles	3
316-147	Sanitation and Safety	2
316-160	Baking	2
316-183	Food Production for Vegetables and Potatoes	2
316-184	Food Production for Pastas, Grains and Breakfast Cookery	2
316-185	Food Production for Stocks and Soups	2
316-187	Food Production for Cold Food	2
804-360	Occupational Mathematics 1	2
890-101	**College 101	2
Total		20
Term 2		
316-121	Nutrition	2
316-151	Fundamentals of Meat Analysis	3
316-162	Breakfast Pastries - OR -	2
316-169	Cakes, Tortes and Desserts	2
316-168	Artisan Breads	3
316-181	Customer Sales and Service	1
316-189	Food Production for Meat, Fish and Poultry	2
316-190	Food Production for Hot Sandwiches, Deli and Short-Order Cookery	2
801-310	Occupational Communication - OR -	2
801-136	English Composition 1 - OR -	3
801-196	Oral and Interpersonal Communication	3
Total		17
Total Program Credits and Institutional Requirements		37

Exit Assessment

A pre/post test is the exit assessment graduation requirement for the program.

(continued)

Consumer and Hospitality Services (cont.)

Food Service Production (cont.)

Institutional Requirements

** The credits for 103-159 Computer Literacy - Microsoft Office and 890-101 College 101 are Institutional Requirements for graduation.

Hotel/Hospitality Management

Associate of Applied Science Degree:

10-109-1

The associate of applied science degree in Hotel/Hospitality Management prepares individuals for a management career in the hotel/hospitality industry. Coursework emphasizes theory and application of skills needed for mid-management and supervisory level of employment in food and lodging facilities. Hotel/hospitality management skills are also applicable to a variety of other hospitality operations that include conference centers, sports and entertainment facilities, front office managers, food and beverage operations, and other careers.

Lakeshore Technical College offers its Hotel/Hospitality Management program in cooperation with Moraine Park. As a Hotel/Hospitality Management student, you'll attend live, interactive television classes sent from Lakeshore Technical College to Moraine Park. General studies classes can be taken at Moraine Park.

Course Number	Course Title	Credits
Moraine Park Courses		
196-191	Supervision	3
801-196	Oral and Interpersonal Communication	3
	- OR -	
801-198	Speech	3
809-195	Economics	3
809-172	Introduction to Diversity Studies	3
	- OR -	
809-196	Introduction to Sociology	3
809-198	Introduction to Psychology	3

Course Number	Course Title	Credits
Lakeshore Courses		
101-102	Hospitality Accounting (LTC)	3
101-158	Hotel/Hospitality Cost Control (LTC)	2
103-131	Excel 2013 - Level 1 (LTC)	1
103-181	Word 2013 - Level 1 (LTC)	1
104-128	Leadership and Professionalism (LTC)	3
104-170	Marketing Tourism and Hospitality (LTC)	3
109-105	Culinary Practicum 1	2
109-108	Dining Room and Beverage Service	2
109-110	Front Office Procedures and Management (LTC)	2
109-111	Housekeeping Management (LTC)	2
109-113	Food and Beverage Operations (LTC)	2
109-115	Hospitality Law (LTC)	3
109-121	Introduction to Hotel/Hospitality Management (LTC)	3
109-122	Hospitality Field Study/Experience (LTC)	2
109-128	Hospitality Personal Branding (LTC)	2
109-144	Hospitality Internship (LTC)	3
116-105	Recruitment and Retention of Employees (LTC)	3

Moraine Park OR Lakeshore Courses

106-101	Customer Service Essentials	3
	- OR -	
104-109	Customer Service Techniques (LTC)	2
316-147	Sanitation and Safety	2
	- OR -	
109-112	Sanitation for Food Service (LTC)	1
801-136	English Composition 1	3
	- OR -	
801-195	Written Communication (LTC)	3
804-107	College Mathematics	3
	- OR -	
804-123	Math with Business Applications (LTC)	3
809-122	Introduction to American Government	3
	- OR -	
806-112	Principles of Sustainability (LTC)	3
Total		66

Nail Technician Certificate

Certificate:

97-502-1

Nail services are the ultimate in pampered hand and foot care. The Nail Technician Certificate is attractive to people with creativity, visual perception, and good interpersonal skills. Students develop nail technician skills in the classroom and simulated salon setting. Coursework covers laws, regulations, business management and ethics to help students who may want to start their own business.

The 324-hour, 10-week certificate prepares students for the state licensing examination to practice as a manicurist. Classes are held in fall three days per week. Online coursework is required.

Graduates of the certificate find employment in salons or may choose to open their own place of business.

NOTE: 502-361 is a prerequisite to 502-362. 502-362 is a prerequisite to 502-363. Students must be accepted into the certificate to be eligible to enroll in the courses. Fees must be paid prior to program start. Class size is limited to a maximum of 16. No students will be accepted following the second class session.

The **Nail Technician Certificate** is accredited and approved by the Department of Safety and Professional Services.

Course Number	Course Title	Credits
Term 1		
502-361	Nail Technician 1	3
502-362	Nail Technician 2	4
502-363	Nail Technician 3	2
Total		9

Civil Engineering Technician - Structural

Associate of Applied Science Degree:

10-607-5

Serving as a team support member to civil engineers, civil engineering technicians help plan and design the construction of highways, bridges, utilities and other major infrastructure projects.

Moraine Park's Civil Engineering Technician - Structural associate of applied science program provides the knowledge and experience in planning and design that are needed in today's architectural, engineering and construction (AEC) industries. Students apply building information model (BIM) and computer-aided design and drafting (CADD) skills to architectural, structural and related designs. Hands-on

learning includes surveying in the field and testing materials such as concrete and soils. In addition to strong computer skills, students need math, spatial relations and analytical skills to meet the demands of the engineering coursework. They also are introduced to concepts and requirements of green design (LEED) and construction practices.

Engineering

(continued)

Engineering (cont.)

Civil Engineering Technician - Structural (cont.)

Graduates may find employment with civil engineering firms, architectural firms, contractors, surveyors, municipalities, testing facilities, mechanical and electrical design firms and public utilities.

Course Number	Course Title	Credits
Term 1		
103-159	**Computer Literacy - Microsoft Office	1
607-116	Architectural Drafting for Civil Engineering	4
607-176	AutoCAD I	3
801-136	English Composition 1	3
804-113	College Technical Mathematics 1A	3
804-114	College Technical Mathematics 1B	2
890-101	**College 101	2
Total		18

Term 2		
607-110	Civil Drafting Fundamentals	4
607-135	Construction Surveying	3
607-178	Revit	3
801-196	Oral and Interpersonal Communication	3
804-116	College Technical Mathematics 2	4
Total		17

Term 3		
607-114	Structural Drafting	4
607-122	Mechanical Construction	3
607-131	Structural Analysis 1	3
607-140	Soils and Foundations	3
809-166	Introduction to Ethics: Theory and Application	3
809-199	Psychology of Human Relations - OR -	3
809-198	Introduction to Psychology	3
Total		19

Term 4		
607-123	Construction Estimating	3
607-132	Structural Analysis 2	3
607-137	Site Development	3
607-150	Technical Problems	3
Total		12

Required Elective Credits 3

Total Program Credits and Institutional Requirements 69

Exit Assessment

A capstone project is an exit assessment graduation requirement for the program.

Institutional Requirements

** The credits for 103-159 Computer Literacy - Microsoft Office and 890-101 College 101 are Institutional Requirements for graduation.

Electromechanical Technology Associate of Applied Science Degree: 10-620-1

Electromechanical Technology integrates theories and applications in mechanical, electrical and electronic systems; fluid power; robotics and computer software to prepare students to work effectively in a variety of industrial settings. The Electromechanical Technology program teaches students a broad array of job-ready skills that involve integrating technologies and systems-thinking required to effectively problem solve, program, operate and maintain electromechanical and automated equipment. Graduates are trained to work as members of teams consisting of engineers and production workers in a variety of industrial and manufacturing settings.

Course Number	Course Title	Credits
Term 1		
103-159	**Computer Literacy - Microsoft Office	1
620-101	DC Circuits	3
620-102	AC Circuits	3
801-136	English Composition 1	3
804-113	College Technical Mathematics 1A	3
804-114	College Technical Mathematics 1B	2
890-101	**College 101	2
Total		17

Term 2		
620-103	Semiconductor Devices	3
620-104	Digital Electronics	3
620-115	AC-DC Machinery and Motor Controls	4
804-116	College Technical Mathematics 2	4
809-199	Psychology of Human Relations - OR -	3
809-198	Introduction to Psychology	3
Total		17

Term 3		
620-105	Industrial Hydraulics and Pneumatics	1 2
620-110	Integrated Manufacturing Planning - Mechatronics	2
620-133	Data Acquisition and Control with LabVIEW - OR -	3
620-141	Mechanical Drives 1	3
620-135	Allen-Bradley PLCs and Ladder Logic	3
620-150	Data Communication and Protocols	3
806-137	Comprehensive Technical Physics	4
Total		17

Term 4		
620-111	Integrated Manufacturing Production - Mechatronics	2
620-136	Advanced Allen-Bradley PLCs and PanelVIEW	3
620-146	Instrumentation and Process Control - OR -	3
620-142	Mechanical Drives 2	3
620-151	Fanuc Robotics and Vision Systems	3
801-197	Technical Reporting	3

Course Number	Course Title	Credits
809-166	Introduction to Ethics: Theory and Application	3
Total		17

Total Program Credits and Institutional Requirements 68

Exit Assessment

Successful completion of course 620-110 and 620-111 is the exit assessment graduation requirement for the program.

Institutional Requirements

** The credits for 103-159 Computer Literacy - Microsoft Office and 890-101 College 101 are Institutional Requirements for graduation.

Mechanical Design Technology Associate of Applied Science Degree: 10-606-1

Moraine Park's Mechanical Design Technology program prepares students to assist engineers in the design of products and the preparation of computerized drawings for all types of machines and manufacturing industries. Coursework emphasizes computer-aided design (CAD) techniques, project and product development, and understanding various materials used in design and manufacturing. Coursework also includes designing fixtures, parts, molds and stamping dies with the latest CAD software. Students are exposed to the concepts of lean manufacturing, as well as green sustainable technologies.

Successful mechanical design technicians have strong computer and visualization skills, are detail oriented, have sound math skills and have a mechanical aptitude.

Representatives from business and industry have identified skills that are essential to success in manufacturing. Students will be expected to demonstrate the Critical Core Manufacturing Skills (CCMS) throughout all the manufacturing classes. These skills include: work cooperatively, work productively, listen effectively, demonstrate a positive attitude, maintain a safe work environment, demonstrate integrity, communicate clearly, follow directions, apply problem solving strategies, apply mathematical reasoning, think critically and adapt to change.

Graduates find jobs with a variety of manufacturing industries including metal fabrication com-

(continued)

Mechanical Design Technology (cont.)

panies; industrial equipment manufacturers; paper equipment manufacturers; consumer product companies; recreational equipment firms; and tool, die, metal stamping and mold making companies.

Course Number	Course Title	Credits
Term 1		
103-159	**Computer Literacy - Microsoft Office	1
606-176	CAD 2-D, AutoCAD	3
617-114	CAD 3-D, SolidWorks	3
623-162	Manufacturing Processes	3
804-113	College Technical Mathematics 1A	3
804-114	College Technical Mathematics 1B	2
890-101	**College 101	2
Total		17
Term 2		
606-116	Machine Elements	3
606-132	Materials of Industry	3
617-115	Jig and Fixture Design	3
801-136	English Composition 1	3
804-116	College Technical Mathematics 2	4
809-198	Introduction to Psychology - OR -	3
809-199	Psychology of Human Relations	3
Total		19
Term 3		
606-107	Component Design	4
606-112	Integrated Manufacturing Planning-Mechanical Design	2
606-128	Design Statics	3
623-196	Geometric Dimensioning and Tolerancing	3
801-196	Oral and Interpersonal Communication 3 - OR -	3
801-197	Technical Reporting	3
809-166	Introduction to Ethics: Theory and Application	3
Total		18
Term 4		
606-111	Integrated Manufacturing Production-Mechanical Design	2
606-125	Product Design	4
606-130	Strength of Materials	3
617-149	Tool Design	4
809-195	Economics	3
Total		16
Required Elective Credits		3
Total Program Credits and Institutional Requirements		73

Exit Assessment

Completion of a comprehensive project in 606-125 Product Design is the exit assessment graduation requirement for this program.

Institutional Requirements

** The credits for 103-159 Computer Literacy - Microsoft Office and 890-101 College 101 are Institutional Requirements for graduation.

Process Engineering Technology - Industrial/Manufacturing

Associate of Applied Science Degree: 10-623-8

Process Engineers provide big-picture thinking from the design phase to production and every step in between, ensuring processes are as cohesive and efficient as possible.

Moraine Park's Process Engineering Technology associate of applied science degree program combines the foundational skills related to industrial engineering with those of computerized manufacturing. Students learn how to plan, set up, monitor, analyze and control integrated systems in order to improve efficiencies in a manufacturing environment. They also learn how to standardize and streamline processes to find cost savings for businesses. Applications in safety, sustainability, problem solving and automated technologies are emphasized.

In the final stages of coursework, students select a specialized training emphasis in either Industrial/Manufacturing or Quality Assurance.

Representatives from business and industry have identified skills that are essential to success in manufacturing. Students will be expected to demonstrate the Critical Core Manufacturing Skills (CCMS) throughout all manufacturing classes. These skills include: work cooperatively, work productively, listen effectively, demonstrate a positive attitude, maintain a safe work environment, demonstrate integrity, communicate clearly, follow directions, apply problem solving strategies, apply mathematical reasoning, think critically and adapt to change.

Graduates are trained to work as members of teams consisting of engineers and production workers in a variety of industrial and manufacturing settings.

Course Number	Course Title	Credits
Term 1		
103-159	**Computer Literacy - Microsoft Office	1
606-176	CAD 2-D, AutoCAD	3
617-114	CAD 3-D, SolidWorks	3
623-162	Manufacturing Processes	3
801-136	English Composition 1	3
804-113	College Technical Mathematics 1A	3
890-101	**College 101	2
Total		18

Course Number	Course Title	Credits
Term 2		
617-115	Jig and Fixture Design	3
623-190	Basic Metrology	3
628-136	Statistical Process Control	3
801-196	Oral and Interpersonal Communication 3 - OR -	3
801-197	Technical Reporting	3
804-114	College Technical Mathematics 1B	2
809-166	Introduction to Ethics: Theory and Application	3
Total		17

Term 3		
623-118	Gage Calibration, Repeatability and Reproducibility - OR -	3
628-122	Basic CNC Programming and Operation	3
623-151	Lean Manufacturing	3
623-170	Process Planning	2
623-196	Geometric Dimensioning and Tolerancing	3
628-110	Integrated Manufacturing Planning - Process Engineering Technology	2
806-137	Comprehensive Technical Physics	4
Total		17

Term 4		
628-111	Integrated Manufacturing Production - Process Engineering Technology	2
628-132	Advanced CNC Programming and Operation	3
628-133	Robotics and Automated Material Handling	3
628-142	Computer-Aided Manufacturing	3
809-195	Economics	3
809-198	Introduction to Psychology - OR -	3
809-199	Psychology of Human Relations	3
Total		17

Required Elective Credits	3
Total Program Credits and Institutional Requirements	72

Exit Assessment

Completion of 628-111 Integrated Manufacturing Production – Process Engineering Technology is the exit assessment graduation requirement for the program.

Institutional Requirements

** The credits for 103-159 Computer Literacy - Microsoft Office and 890-101 College 101 are Institutional Requirements for graduation.

Process Engineering Technology - Quality Assurance

Associate of Applied Science Degree: 10-623-8

Process Engineers provide big-picture thinking from the design phase to production and every step in between, ensuring processes are as cohesive and efficient as possible.

(continued)

Engineering (cont.)

Process Engineering Technology - Quality Assurance (cont.)

Moraine Park's Process Engineering Technology associate of applied science degree program combines the foundational skills related to industrial engineering with those of computerized manufacturing. Students learn how to plan, set up, monitor, analyze and control integrated systems in order to improve efficiencies in a manufacturing environment. They also learn how to standardize and streamline processes to find cost savings for businesses. Applications in safety, sustainability, problem solving and automated technologies are emphasized.

In the final stages of coursework, students select a specialized training emphasis in either Industrial/Manufacturing or Quality Assurance.

Representatives from business and industry have identified skills that are essential to success in manufacturing. Students will be expected to demonstrate the Critical Core Manufacturing Skills (CCMS) throughout all manufacturing classes. These skills include: work cooperatively, work productively, listen effectively, demonstrate a positive attitude, maintain a safe work environment, demonstrate integrity, communicate clearly, follow directions, apply problem solving strategies, apply mathematical reasoning, think critically and adapt to change.

Graduates are trained to work as members of teams consisting of engineers and production workers in a variety of industrial and manufacturing settings.

Course Number	Course Title	Credits
Term 1		
103-159	**Computer Literacy - Microsoft Office	1
606-176	CAD 2-D, AutoCAD	3
617-114	CAD 3-D, SolidWorks	3

Course Number	Course Title	Credits
623-162	Manufacturing Processes	3
801-136	English Composition 1	3
804-113	College Technical Mathematics 1A	3
890-101	**College 101	2
Total		18
Term 2		
617-115	Jig and Fixture Design	3
623-190	Basic Metrology	3
628-136	Statistical Process Control	3
801-196	Oral and Interpersonal Communication - OR -	3
801-197	Technical Reporting	3
804-114	College Technical Mathematics 1B	2
809-166	Introduction to Ethics: Theory and Application	3
Total		17
Term 3		
623-118	Gage Calibration, Repeatability and Reproducibility - OR -	3
628-122	Basic CNC Programming and Operation	3
623-151	Lean Manufacturing	3
623-170	Process Planning	2
623-196	Geometric Dimensioning and Tolerancing	3
628-110	Integrated Manufacturing Planning - Process Engineering Technology	2
806-137	Comprehensive Technical Physics	4
Total		17
Term 4		
623-106	Quality Tools	3
623-134	Basic CMM Programming and Operation	3
623-167	ISO 9001 and Auditing	3
628-111	Integrated Manufacturing Production - Process Engineering Technology	2
809-195	Economics	3
809-198	Introduction to Psychology - OR -	3
809-199	Psychology of Human Relations	3
Total		17
	Required Elective Credits	3
	Total Program Credits and Institutional Requirements	72

Exit Assessment

Completion of 628-111 Integrated Manufacturing Production – Process Engineering Technology is the exit assessment graduation requirement for the program.

Institutional Requirements

** The credits for 103-159 Computer Literacy - Microsoft Office and 890-101 College 101 are Institutional Requirements for graduation.

Quality/Supervision Certificate Certificate: 97-623-3

By merging leadership development and quality management programs, Moraine Park's Quality/Supervision Certificate is custom-designed to develop the management skills needed to transfer into a quality management role or to excel in one's current position. The courses provide individuals with an interdisciplinary experience, and course schedules and formats are designed for working adults. Extensive out-of-class work is required.

This certificate allows students to take associate of applied science degree courses without the time commitment of a full-time program. The credits may be applied toward an associate of applied science degree for the student who is interested in pursuing further education.

Courses in this certificate can be customized for on-site company training.

Course Number	Course Title	Credits
Term 1		
196-188	Project Management - OR -	3
196-189	Team Building and Problem Solving	3
196-191	Supervision	3
623-106	Quality Tools	3
623-151	Lean Manufacturing	3
623-167	ISO 9001 and Auditing	3
804-107	College Mathematics - OR -	3
804-113	College Technical Mathematics 1A	3
Total		18

Environmental Sciences and Trades

ABC Carpentry Apprenticeship Apprenticeship: 50-410-9

Carpentry includes residential, commercial and industrial buildings and structures such as bridges and dams. In this trade, you will be

involved with layout; concrete forming; wood and metal framing of walls, floors and roofs; window and door installation; and a wide variety of interior and exterior finish applications. You will also learn to use a variety of hand and power tools. Physically demanding indoor and outdoor work with variable weather conditions.

Work may involve being below ground or working at various heights. -The carpentry program will include the use of green and sustainable construction practices.

(continued)

Environmental Sciences and Trades (cont.)

ABC Carpentry Apprenticeship (cont.)

Course Number	Course Title	Credits
Year 1		
410-531	ABC Carpentry 1	2
410-532	ABC Carpentry 2	2
Year 2		
410-533	ABC Carpentry 3	2
410-534	ABC Carpentry 4	2
Year 3		
410-535	ABC Carpentry 5	2
410-536	ABC Carpentry 6	2
Year 4		
410-537	ABC Carpentry 7	2
410-538	ABC Carpentry 8	2
Total		16

Required state paid instruction hours - 576

Suggested Related Electives (unpaid related)

Hours and credits for each course may vary.

410-302	Advanced Roof Framing	1
410-304	Cabinet Making	1
410-305	Advanced Stair Construction	1
410-306	Wisconsin Uniform Dwelling Code	1
410-307	Construction Measurement and Layout	1
410-311	Construction Trades Blueprint Reading	1
410-406	Your Role in the Green Environment	.3
410-456	Rigging for Building Trades	.45
413-500	*OSHA 10	.50
442-322	Welding for Apprentices	1
455-455	*Transition to Trainer, Your Role as a Journeyworker	.20
531-465	*Heartsaver First Aid/CPR	.20

Other unpaid-related courses may be taken with the approval of the Advisory Committee.

*Required

For apprenticeship application information, please contact a Bureau of Apprenticeship Standards Representative at 920-693-1102.

Exit Assessment

A Checklist and Final Exam are the exit assessment graduation requirements for the program.

ABC Construction Electrician Apprenticeship:

50-413-9

Electricians plan, diagram, install and repair electrical fixtures, apparatus and control equipment such as switches, relays and circuit breaker panels. They measure, cut, bend, thread, assemble and install electrical conduit (pipe or tubing), and pull wire through conduit. They

test continuity of circuits to ensure compatibility and safety of components, using instruments such as the ohmmeter and electrical test meter.

Electricians assemble, install and wire electrical systems that operate heating, lighting, power, air conditioning and refrigeration components; electrical machinery; electronic equipment and controls; and signal and communications systems. Electricians need to be knowledgeable on the latest technology dealing with energy conservation and green sustainable work processes.

For safety, electricians must be able to master the more than 800 detailed sections of the National Electrical Code designed to protect persons and property from hazards arising from the use of electricity. This job also requires electricians to have the ability to distinguish colors.

Course Number	Course Title	Credits
Year 1		
413-540	ABC Construction Electrician 1	2
413-541	ABC Construction Electrician 2	2
Year 2		
413-542	ABC Construction Electrician 3	2
413-543	ABC Construction Electrician 4	2
Year 3		
413-544	ABC Construction Electrician 5	2
413-545	ABC Construction Electrician 6	2
Year 4		
413-546	ABC Construction Electrician 7	2
413-547	ABC Construction Electrician 8	2
Year 5		
413-548	ABC Construction Electrician 9	2
413-549	ABC Construction Electrician 10	2
Total Hours/Credits		20

Based on Moraine Park's curriculum design, actual program hours will be delivered at 720 hours. The state has required a minimum of 700 hours paid-related instruction. Additional unpaid-related hours are also required.

Course Number	Course Title	Credits
413-326	Introduction to PLC	1
413-327	Advanced PLC	1
413-371	Electrical Estimating for Construction Trades	1
413-374	Advanced NEC, Construction Trade Apprentices	1
413-375	Basic Electrical Blueprint Reading for Construction Trades	1
413-381	Building Trades National Electric Code 2	1
413-390	Industrial Electricity 1 (Motor Control-JATC)	2
413-394	Basic Programmable Logic Controls	2
413-405	Electrical Code Update	.60
413-500	*OSHA 10	.50

Course Number	Course Title	Credits
442-322	Basic Welding Applications for Construction	1
455-455	*Transition to Trainer, Your Role as a Journeyworker	.20
531-465	*Heartsaver First Aid/CPR	.20

Other unpaid-related courses may be taken with the approval of the Advisory Committee.

*Required

For apprenticeship application information, please contact a Bureau of Apprenticeship Standards Representative at 920-693-1102.

Exit Assessment

A Final Assessment Test and Checklist are the exit assessment graduation requirement for the program.

Agribusiness Science and Technology

Associate of Applied Science Degree: 10-006-2

Whether you want to run your own agribusiness operation or help other agriculture producers become more successful, this program gives you the skills you need. Learn how to merge business and science to produce a product and make a profit. Through hands-on learning and on-the-job experience, you'll gain skills in animal science and nutrition, integrated pest management, soil science, crop production and precision agriculture. You'll be able to develop crop management, livestock management and business plans. You'll also learn how to enhance your success through sales, marketing and business management. This program will open doors to a variety of agribusiness career pathways.

Lakeshore Technical College (LTC) offers its Agribusiness Science and Technology program classes at LTC and also at Moraine Park via live interactive television. As an Agribusiness Science and Technology student, you'll attend live classes at the LTC campus or attend live interactive television classes at Moraine Park. General studies classes and labs can be taken at Moraine Park.

Course Number	Course Title	Credits
Moraine Park Courses		
801-136	English Composition 1 - OR -	3
801-195	Written Communication (LTC)	3

(continued)

Environmental Sciences and Trades (cont.)

Agribusiness Science and Technology (cont.)

Course Number	Course Title	Credits
801-196	Oral and Interpersonal Communication	3
804-107	College Mathematics - OR -	3
804-123	Math with Business Applications (LTC)	3
806-114	General Biology - OR -	4
806-122	Natural Sciences in Society - OR -	3
806-112	Principles of Sustainability (LTC)	3
809-195	Economics	3
809-196	Introduction to Sociology	3
809-198	Introduction to Psychology	3
Lakeshore Courses		
006-110	Agricultural Finance (LTC)	2
006-112	Farm Business Management (LTC)	2
006-114	Introduction to Animal Science (LTC)	2
006-116	Introduction to Soil Science (LTC)	2
006-120	Animal Health (LTC)	2
006-122	Principles of Crop Production (LTC)	3
006-124	Principles of Animal Breeding (LTC)	3
006-126	Agribusiness Economics (LTC)	3
006-130	Agricultural Marketing and Sales (LTC)	3
006-132	Reproductive Physiology (LTC)	3
006-134	Computer Apps and Animal Records (LTC)	3
006-136	Principles of Agronomy (LTC)	3
006-140	Legal Aspects of Agribusiness (LTC)	3
006-142	Advanced Dairy Management (LTC)	3
006-144	Advanced Nutrition Principles (LTC)	3
006-146	Precision Ag Technologies (LTC)	3
Total		64

Air Conditioning, Heating and Refrigeration Technology

Associate of Applied Science Degree: 10-601-1

Heating, Ventilation, Air Conditioning and Refrigeration (HVAC/R) jobs are expected to see higher than average growth for the foreseeable future according to the U.S. Department of Labor. This high job growth creates a need for intensive vocational training in HVAC/R programs, leading students to become skilled technicians in their field.

Moraine Park Technical College (MPTC) offers an associate of applied science degree program where students learn the principles of air conditioning and heating service and installation, and design of heating and air conditioning systems. This program includes hands-on training in commercial refrigeration, supermarket applications of refrigeration, hot water/steam heating, geothermal heating and air conditioning, build-

ing controls, fundamentals of electricity, electric motors and controls, and studies in the movement of air specific to HVAC/R applications. In 2014, a laboratory and simulated construction environment was completed, giving HVAC/R students a state-of-the-art learning experience.

MPTC also offers training in building automation systems (BAS) and energy management to meet the energy needs of current buildings. BAS is a technology driven component of modern HVAC/R systems where the technician must utilize their training in HVAC/R system operation to program local and web-based control systems. BAS is the fastest growing segment within HVAC/R jobs.

Course Number	Course Title	Credits
Term 1		
601-107	Electricity and Electronics HVAC	3
601-108	Heating, Ventilation and Air Conditioning (HVAC) Schematics	2
601-109	HVAC/R Code	1
601-120	Fundamentals of Refrigeration	2
601-121	Refrigeration Service Techniques	2
804-107	College Mathematics - OR -	3
804-113	College Technical Mathematics 1A	3
890-101	**College 101	2
Total		15
Term 2		
103-159	**Computer Literacy - Microsoft Office	1
601-122	Residential Air Conditioning	3
601-123	Residential Heating Systems	3
601-134	Commercial Heating and Air Conditioning	4
801-136	English Composition 1	3
Total		14
Term 3		
601-116	Hydronic Environmental Systems	3
601-118	Air Distribution	2
601-127	Fundamentals of Building Controls	2
601-129	Commercial Food Service Refrigeration	3
801-196	Oral and Interpersonal Communication	3
801-197	Technical Reporting	3
809-196	Introduction to Sociology	3
Total		19
Term 4		
601-119	Geothermal Heat Pumps	2
601-126	Residential Energy	3
601-128	Building Control Systems Applications	3
601-130	Supermarket Refrigeration	3
809-166	Introduction to Ethics: Theory and Application	3
809-199	Psychology of Human Relations	3
Total		17
Total Program Credits and Institutional Requirements		65

Exit Assessment

Capstone Projects or Troubleshooting Hands-on Application Investigations are an exit assessment graduation requirement for the program.

Institutional Requirements

** The credits for 103-159 Computer Literacy - Microsoft Office and 890-101 College 101 are Institutional Requirements for graduation.

Automotive Technician

Technical Diploma:

32-404-2

The Automotive Technician program is offered as a four-semester technical diploma. Students learn to diagnose, service and repair all eight major systems of the automobile, which includes engine mechanical, engine performance, automatic transmission/transaxle, manual drive train, brakes, steering and suspension, climate control, and electrical and electronic systems. Mechanical aptitude, communication skills and an interest in the automotive industry are important to a successful automotive technician career. Graduates of the program may find employment as technicians in dealerships or other automotive repair facilities, service specialists, parts specialists, or as service writers/consultants. This program prepares students for ASE certification.

Automotive Technician is accredited or approved by the National Automotive Technicians Education Foundation.

Course Number	Course Title	Credits
Term 1		
103-159	**Computer Literacy - Microsoft Office	1
602-104	Brake Systems	3
602-107	Auto Service Fundamentals	2
602-124	Steering and Suspension Systems	3
602-125	Electrical and Electronic Systems 1	2
623-105	Metals for Technicians	1
804-360	Occupational Mathematics 1 - OR -	2
804-107	College Mathematics	3
890-101	**College 101	2
Total		16
Term 2		
442-101	Welding for Automotive Technicians	1
602-103	Engine Repair 1	2
602-127	Electrical and Electronic Systems 2	3
602-128	Electrical and Electronic Systems 3	3
602-133	Shop Simulation/Internship 1	2
602-197	Engine Performance 1	3
801-310	Occupational Communication - OR -	2
801-136	English Composition 1	3
806-376	Applied Physics	2

(continued)

Environmental Sciences and Trades (cont.)

Automotive Technician (cont.)

Course Number	Course Title	Credits
806-137	Comprehensive Technical Physics	4
Total		18

Term 3		
602-123	Engine Repair 2	3
602-134	Shop Simulation/Internship 2	2
602-196	Climate Control Systems	3
602-198	Engine Performance 2	4
809-300	Occupational Success Strategies	2
	- OR -	
801-136	English Composition 1	3
Total		14

Term 4		
602-109	Auto Transmission/Transaxle	4
602-132	Light Duty Diesel Engine Operation	2
602-135	Shop Simulation/Internship 3	2
602-149	Manual Drive Train and Axles	4
602-195	Advanced Chassis Systems	2
Total		14

Total Program Credits and Institutional Requirements **62**

Exit Assessment

Licensure/certification exams are an exit assessment graduation requirement for the program: Successful completion of Mobile Refrigerant Handling Licensure and ASE Student Exams.

Institutional Requirements

** The credits for 103-159 Computer Literacy - Microsoft Office and 890-101 College 101 are Institutional Requirements for graduation.

Automotive Technology

Associate of Applied Science Degree: 10-602-3

The Automotive Technology program is offered as a four-semester associate degree. Students learn to diagnose, service, and repair all eight major systems of the automobile which includes engine mechanical, engine performance, automatic transmission/transaxle, manual drive train, brakes, steering and suspension, climate control, and electrical and electronic systems. Mechanical aptitude, communication skills and an interest in the automotive industry are important to a successful automotive technician career. Graduates of the associate degree program have opportunities to further their education that may lead beyond the projected career paths of technicians in dealerships or other automotive repair facilities, service specialists, parts specialists, or as service writers/consultants. This program prepares students for ASE certification.

Automotive Technology is accredited or approved by the National Automotive Technicians Education Foundation.

Course Number	Course Title	Credits
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Term 1		
103-159	**Computer Literacy - Microsoft Office	1
602-104	Brake Systems	3
602-107	Auto Service Fundamentals	2
602-124	Steering and Suspension Systems	3
602-125	Electrical and Electronic Systems 1	2
623-105	Metals for Technicians	1
801-136	English Composition 1	3
804-107	College Mathematics	3
890-101	**College 101	2
Total		20

Term 2		
442-101	Welding for Automotive Technicians	1
602-103	Engine Repair 1	2
602-127	Electrical and Electronic Systems 2	3
602-128	Electrical and Electronic Systems 3	3
602-197	Engine Performance 1	3
806-137	Comprehensive Technical Physics	4
Total		16

Term 3		
602-123	Engine Repair 2	3
602-196	Climate Control Systems	3
602-198	Engine Performance 2	4
801-196	Oral and Interpersonal Communication	3
809-166	Introduction to Ethics: Theory and Application	3
Total		16

Term 4		
602-109	Auto Transmission/Transaxle	4
602-132	Light Duty Diesel Engine Operation	2
602-149	Manual Drive Train and Axles	4
602-195	Advanced Chassis Systems	2
809-195	Economics	3
809-199	Psychology of Human Relations	3
Total		18

Total Program Credits and Institutional Requirements **70**

Exit Assessment

Licensure/certification exams are an exit assessment graduation requirement for the program: Successful completion of Mobile Refrigerant Handling Licensure and ASE Student Exams.

Institutional Requirements

** The credits for 103-159 Computer Literacy - Microsoft Office and 890-101 College 101 are Institutional Requirements for graduation.

Commercial Refrigeration Certificate

Certificate:

97-601-2

Moraine Park's Commercial Refrigeration Certificate provides students with the theory and hands-on training in the operation, system

design and component application, installation and start-up, preventative maintenance, and service repair of commercial refrigeration systems and equipment.

Graduates may work in the commercial refrigeration industry in one or more of the following areas:

- Service and installation of food and beverage refrigeration equipment
- Service and installation of supermarket equipment
- Service and repair of special refrigeration systems

Successful people in this field are in good physical condition, are neat in appearance, have good mechanical and electrical aptitude, and possess good analytical skills.

Graduates must pass the EPA refrigerant-handling certification and the Industry Competency Exam (ICE).

Graduates of this certificate may directly transfer many of their credits into Moraine Park's HVAC Installation Technician technical diploma. All courses from the technical diploma can then transfer to the Air Conditioning, Heating and Refrigeration Technology associate of applied science degree if students wish to continue their education.

Course Number	Course Title	Credits
Term 1		
601-107	Electricity and Electronics HVAC	3
601-108	Heating, Ventilation and Air Conditioning (HVAC) Schematics	2
601-109	HVAC/R Code	1
601-120	Fundamentals of Refrigeration	2
601-121	Refrigeration Service Techniques	2
601-129	Commercial Food Service Refrigeration	3
601-130	Supermarket Refrigeration	3
Total		16

Electrical Power Distribution Technical Diploma:

31-413-2

The Electrical Power Distribution program provides theoretical and hands-on training in all phases of power line construction and maintenance. Individuals must have the ability to work in a diverse work environment, the ability to work at heights and in all weather conditions, good eyesight and hearing, and manual dexterity to be successful in a career as a line mechanic.

(continued)

Environmental Sciences and Trades (cont.)

Electrical Power Distribution

(cont.)

This technical diploma program prepares students for entry-level employment as line technician trainees for electrical utilities, telephone companies and related businesses. Graduates of the program may enter their employer's apprentice program.

Course Number	Course Title	Credits
Term 1		
103-159	**Computer Literacy - Microsoft Office	1
413-103	Commercial Driver's License (CDL) Preparation	1
413-307	Electrical Theory and Safety 1	3
413-309	Line Technician 1	5
413-310	Line Technician 2	5
804-363	Algebraic Applications for Electrical Trades	2
809-300	Occupational Success Strategies	2
890-101	**College 101	2
Total		21

Term 2		
413-311	Line Technician 3	5
413-312	Line Technician 4	5
413-317	Electrical Theory and Safety 2	3
413-142	Introduction to Electrical Substations	3
806-375	Applied Science	2
Total		18

Total Program Credits and Institutional Requirements 39

Exit Assessment

A Capstone Project/Demonstration is the exit assessment graduation requirement for the program.

Institutional Requirements

** The credits for 103-159 Computer Literacy - Microsoft Office and 890-101 College 101 are Institutional Requirements for graduation.

Electrical Substation Certificate

Certificate:

97-413-1

The Electrical Substation Certificate offers students the opportunity to enhance their skills, enabling them to inspect and maintain electrical substations. Coursework introduces students to a basic understanding of the theories, process, systems and equipment used in electrical substations. The coursework equips students with the skills to compete in today's industry.

This certificate allows the student to take associate of applied science degree level courses without the time commitment of a full-time program. A portion of the credits can be applied toward the Electrical Power Distribution diploma if the stu-

dent desires. If you have any questions on which courses will transfer, please contact Moraine Park Technical College.

Course Number	Course Title	Credits
Term 1		
413-142	Introduction to Electrical Substations	3
413-144	Substation Control and System Protection	3
413-146	Substation Testing and Diagnostics	3
413-307	Electrical Theory and Safety 1	3
Total		12

Electricity

Technical Diploma:

31-413-1

Moraine Park's Electricity program provides students with the concepts of and extensive hands-on training in general electrical applications. Coursework develops basic knowledge and skills in residential, commercial and industrial electricity to prepare them for a career path in any of the three areas. In addition, students learn trade-specific mathematics, safety, electrical code, electrical theory, construction trades blueprint reading, basic programmable logic controls, and will investigate the theories and principals of renewable energy and conservation.

The program is designed to help graduates enter the State Electrical Apprenticeship program through the Department of Workforce Development, Bureau of Apprenticeship Standards. Graduates are also prepared for employer-sponsored training programs.

Course Number	Course Title	Credits
Term 1		
103-159	**Computer Literacy - Microsoft Office	1
413-350	Beginning Electrical Concepts	2
413-355	Residential and Commercial Wiring Concepts	3
413-360	Introduction to National Electrical Code	2
413-361	Intermediate National Electrical Code	2
413-363	OSHA Safety Construction Trades	1
413-370	Construction Trades Blueprint Reading	2
804-360	Occupational Mathematics 1	2
890-101	**College 101	2
Total		17

Term 2		
413-351	Advanced Electrical Concepts	2
413-365	Basic Motor Controls	3
413-380	Industrial Wiring Concepts	3
413-385	Electrical Fabrication	2
413-386	Trends in Electricity	1
801-310	Occupational Communication - OR -	2

Course Number	Course Title	Credits
801-136	English Composition 1	3
804-113	College Technical Mathematics 1A	3
Total		16

Total Program Credits and Institutional Requirements 33

Exit Assessment

A Program Assessment Checklist is an exit assessment graduation requirement for the program.

Institutional Requirements

** The credits for 103-159 Computer Literacy - Microsoft Office and 890-101 College 101 are Institutional Requirements for graduation.

HVAC Installation Technician

Technical Diploma:

31-601-2

Heating, Ventilation, Air Conditioning and Refrigeration (HVAC/R) jobs are expected to see higher than average growth for the foreseeable future according to the U.S. Department of Labor. This high job growth creates a need for intensive vocational training in HVAC/R programs, leading students to become skilled technicians in their field.

Moraine Park Technical College (MPTC) offers an embedded technical diploma program where students learn the principles of air conditioning and heating service and installation, and design of heating and air conditioning systems. This program includes hands-on training in applications of refrigeration, hot water/steam heating, fundamentals of electricity, electric motors and controls, and studies in the movement of air specific to HVAC/R applications. In 2014, a laboratory and simulated construction environment was completed, giving HVAC/R students a state-of-the-art learning experience.

Credits in the one-year technical diploma may be applied toward the Air Conditioning, Heating and Refrigeration Technology associate of applied science degree.

Course Number	Course Title	Credits
Term 1		
601-107	Electricity and Electronics HVAC	3
601-108	Heating, Ventilation and Air Conditioning (HVAC) Schematics	2
601-109	HVAC/R Code	1
601-120	Fundamentals of Refrigeration	2
601-121	Refrigeration Service Techniques	2
804-107	College Mathematics	3

(continued)

Environmental Sciences and Trades (cont.)

HVAC Installation Technician

(cont.)

Course Number	Course Title	Credits
	- OR -	
804-113	College Technical Mathematics 1A	3
890-101	**College 101	2
Total		15

Term 2

103-159	**Computer Literacy - Microsoft Office	1
601-122	Residential Air Conditioning	3
601-123	Residential Heating Systems	3
601-134	Commercial Heating and Air Conditioning	4
801-136	English Composition 1	3
Total		14

Total Program Credits and Institutional Requirements

29

Exit Assessment

Capstone Projects or Troubleshooting Hands-on Application Investigations are an exit assessment graduation requirement for the program.

Institutional Requirements

** The credits for 103-159 Computer Literacy - Microsoft Office and 890-101 College 101 are Institutional Requirements for graduation.

Industrial Wiring Certificate

Certificate:

97-413-2

Introduces students with little or no background to the fundamentals of electrical motor control components, circuits and systems found in industrial and manufacturing settings. Topics include electrical control symbols, ladder diagrams, power distribution, control transformers, relays, motor starters, limit switches, pushbuttons, selector switches, timers, ac motor principles, proximity sensors, photo eyes and basic troubleshooting of power and control circuits. The certificate prepares students to design PLC circuits, address inputs (contacts) and outputs (coils), work with PLC numbering system, timers, counters, math functions, analog input/ outputs, and PLC wiring.

Courses are directly transferable to Moraine Park's Electricity technical diploma if students wish to further their education in this field.

Course Number	Course Title	Credits
Term 1		
413-365	Basic Motor Controls	3
413-380	Industrial Wiring Concepts	3
Total		6

Technical Studies - Journeyworker

Associate of Applied Science Degree: 10-499-5

This associate of applied science degree program is designed for journeyworkers from various trades who are interested in continuing their education and earning a degree customized to their career interests. Thirty-nine credits are granted toward the degree, based upon completion of a Wisconsin Journey certificate that includes 400 or more hours of instruction. The Certificate of Apprenticeship/Wisconsin Journey Worker Level Certificate will grant the student 39 credits for prior learning.

With a college advisor, the journeyworker identifies the knowledge and skills required for achieving specific career goals. Existing courses become components of the journeyworker's program of study. Selected coursework may be taken during the duration of the apprenticeship.

The 21-credit general studies required coursework may be transferable to a 4-year institution.

Note: financial aid is not available for courses taken solely to fulfill this degree.

Course Number	Course Title	Credits
39 credits of advanced standing are granted for 400 hours of apprenticeship-related training. Based on 6,048 hours of on-the-job training.		
Institutional Requirements (3 credits)		
103-159	Computer Literacy - Microsoft Office	1
890-101	College 101	2
General Studies Courses (see below)		21
Communications (select 801-136 English Composition 1 and one additional Communication course)		
801-136	English Composition 1 (and)	3
801-1XX	Other associate-level Communication Course	3
Mathematics or Science (minimum 3-credit course)		
804-1XX	Associate-level Mathematics Course (or)	3-4
806-1XX	Associate-level Science Course	3-4
Social Science (809-166 Introduction to Ethics required)		
809-166	Introduction to Ethics: Theory and Application	3
Behavioral Science (minimum 3-credit course)		
809-1XX	Associate-level Behavioral Science course	3
The remaining six General Education credits from the 801, 804, 806, or 809 areas to be determined with academic advisor.		
Total Program Credits and Institutional Requirements		63

Note: A minimum of 25 percent of total program requirements must be earned at the technical college from which you will receive your degree.

Exit Assessment

A checklist project is the exit assessment graduation requirement for the program.

Institutional Requirements

** The credits for 103-159 Computer Literacy - Microsoft Office and 890-101 College 101 are Institutional Requirements for graduation.

Wastewater Treatment Plant Operator Apprenticeship

Apprenticeship:

50-527-1

Wastewater treatment plant operators monitor, maintain, and adjust a wide variety of systems used in the treatment of wastewater. They control plant processes to ensure the plant operates effectively. Operators monitor laboratory data, charts, and computer control systems, which indicate performance status of a wide variety of biological nutrient and chemical removal. These workers operate various systems and processes, including activated sludge wastewater treatment systems; biological nutrient removal systems, digester gas system pressures and gas compressor operations; digester operating temperatures; heat exchangers; digester circulation pumps, pressures, and flows; boilers and engine generators; influent rate and pumps; sludge and primary sedimentation levels and pumps; and sewage de-gritting systems. Personnel employed in these positions monitor and adjust sludge thickness on flotation thickeners; and monitor and adjust the quantity of sludge in the thickener hopper and rate of pumping to digesters. Operators will back flush, clear, and purge pumps, and monitor and adjust flow rates. Plant operators operate and control sludge dewatering centrifuge and all associated systems. Operators also collect various samples and plant information, including composite samples; disinfection system samples; effluent samples, bay samples; and daily major industrial user samples. Personnel collect, record and maintain records as necessary for state and federal regulations. Advanced certifications exist in the industry.

Course Number	Course Title	Credits
Term 1		
527-100	Introduction to Wastewater Treatment	3
804-107	College Mathematics	3
Total 1st Term Hours/Credits		6

(continued)

Environmental Sciences and Trades (cont.)

Wastewater Treatment Plant Operator Apprenticeship (cont.)

Course Number	Course Title	Credits
Term 2		
527-103	Conventional Wastewater Treatment	3
527-111	Water Chemistry	4
Total 2nd Term Hours/Credits		7
Term 3		
527-105	Advanced Wastewater Treatment Processes	4
527-120	Hydraulics of Water and Wastewater	3
527-136	Equipment Maintenance and Instrumentation	4
Total 3rd Term Hours/Credits		11
Total Program Hours/Credits		24
Related Electives (Unpaid Related)		
455-455	*Transition to Trainer, Your Role as a Journeyworker	.20

*Required

Additional Requirements:

The apprentice must complete Heartsaver First Aid/CPR or equivalent in the first year of the apprenticeship and maintain it throughout the program; Confined Space Entry and OSHA 10 Hour; and Transition to Trainer. The apprentice may be required by the employer to obtain a Commercial Driver License (CDL).

For apprenticeship application information, please contact the apprenticeship office at 262-335-5849.

Water Quality Technology Associate of Applied Science Degree: 10-527-2

Moraine Park's Water Quality Technology program provides students with the skills and training to perform testing, analysis and treatment to community and industrial water supplies. Water Quality technicians are responsible for ensuring that the water we use is safe and that discharge water is processed effectively. Their work combines the precision and accuracy found in the biochemical laboratory with operational aptitude and troubleshooting skills. Each day, municipalities and industries generate billions of gallons of wastewater that must be collected, analyzed and treated.

Program graduates also have employment opportunities as environmental technicians and field service technicians at companies that design and install water treatment equipment for municipalities and manufacturing companies.

This associate of applied science degree offers targeted instruction and practical experience through online courses and an on-the-job internship (Water Quality Research can be taken as an alternative for students unable to secure an internship). Geographical location of the student does not matter, as long as the student can access the Internet. Completion of the degree can occur from anywhere on the globe.

Course Number	Course Title	Credits
Term 1		
103-159	**Computer Literacy - Microsoft Office	1
527-100	Introduction to Wastewater Treatment	3
527-130	Groundwater Supply and Distribution	3
801-136	English Composition 1	3
804-107	College Mathematics	3
890-101	**College 101	2
Total		15

Term 2		
527-103	Conventional Wastewater Treatment	3
527-111	Water Chemistry	4
527-131	Surface Water Supply and Treatment	3
801-196	Oral and Interpersonal Communication - OR -	3
801-197	Technical Reporting	3
809-166	Introduction to Ethics: Theory and Application	3
Total		16

Term 3		
527-105	Advanced Wastewater Treatment Processes	4
527-120	Hydraulics of Water and Wastewater	3
527-129	Utility Management	3
527-136	Equipment Maintenance and Instrumentation	4
809-198	Introduction to Psychology - OR -	3
809-199	Psychology of Human Relations	3
Total		17

Term 4		
527-125	Industrial Wastes	3
527-150	Advanced Water Treatment	3
527-171	Water Quality Internship - OR -	3
527-173	Water Quality Research	3
809-195	Economics	3
809-196	Introduction to Sociology	3
Total		15

Total Program Credits and Institutional Requirements **63**

Exit Assessment

527-150 Advanced Water Treatment includes an exit assessment which is a graduation requirement for the program.

Institutional Requirements

** The credits for 103-159 Computer Literacy - Microsoft Office and 890-101 College 101 are Institutional Requirements for graduation.

Wind Energy Technology Associate of Applied Science Degree: 10-482-1

The wind energy industry is the fastest growing segment of renewable energy production. The U.S. and Canadian commercial wind farms are experiencing annual growth of 25%. Employers seek skilled technicians for operation and maintenance activities in local wind farm settings. There is also intense demand for upper-level technicians within U.S. and international wind turbine manufacturers; these include installation technician, quality control technician, and warranty and commissioning technicians. Operation and maintenance positions generally remain with a given wind farm location; other technicians travel extensively with the development of new wind farms and repair/retrofitting of wind farms around the world.

Students are able to complete their general studies courses and a number of core program courses at Moraine Park and enroll in the Wind Energy Technology courses at Lakeshore Technical College (LTC). LTC's Wind Energy Technology courses focus on applying knowledge and skills to install, test, service and repair wind turbine components and Supervisory Control and Data Acquisition (SCADA) systems. They also focus on applying safety practices required on the job and learning safe wind turbine tower climbing skills.

Course Number	Course Title	Credits
Moraine Park Courses		
606-116	Machine Elements	3
620-101	DC Circuits	3
620-102	AC Circuits	3
620-105	Industrial Hydraulics and Pneumatics 1	2
620-110	Integrated Manufacturing Planning - Mechatronics	2
620-111	Integrated Manufacturing Production - Mechatronics	2
620-115	AC-DC Machinery and Motor Controls	4
620-133	Data Acquisition and Control With LabVIEW	3
620-135	Allen-Bradley PLCs and Ladder Logic	3
620-136	Advanced Allen-Bradley PLCs and PanelVIEW	3
620-151	Fanuc Robotics and Vision Systems	3
801-136	English Composition 1 - OR -	3
801-197	Technical Reporting	3
801-196	Oral and Interpersonal Communication	3
804-113	College Technical Mathematics 1A	3
804-114	College Technical Mathematics 1B	2
806-137	Comprehensive Technical Physics	4
809-195	Economics	3

(continued)

Environmental Sciences and Trades (cont.)

Wind Energy Technology (cont.)

Course Number	Course Title	Credits
809-198	Introduction to Psychology - OR -	3
809-199	Psychology of Human Relations	3

Course Number	Course Title	Credits
Lakeshore Courses		
413-110	Introduction to Energy	1
482-101	Introduction to Wind Systems	3
482-113	Wind Technician Health and Safety	2
482-120	Wind Technician 1 Lab	1
482-122	Wind Technician 2 Lab	1
482-124	Wind Technician 3 Lab	1

Course Number	Course Title	Credits
482-126	Wind Technician 4	3
482-128	Wind Technician 5	2
482-132	Turbine Maintenance/Site Assessment - OR -	2
482-103	Wind Farm Internship	2
620-193	NEC Codes	1
620-195	Industrial Troubleshooting	1
Total		65

General Studies

Global Studies Certificate

Certificate:

97-890-1

The Global Studies Certificate integrates student learning across disciplines, fostering connections between interdisciplinary learning and study abroad experiences. Completion of the certificate includes both study abroad participation and student coursework with global and/or cultural competencies. Students will tailor their course of study within the certificate by selecting from a variety of courses with global and/or cultural competencies. For the education abroad component, students can participate in short-term study abroad options or semester-long study abroad offerings.

Students will enhance their workplace skills and employment opportunities through: (1) the ability to apply global perspectives to the workplace; (2) the use of appropriate technology for international communication; (3) the ability to collaborate with diverse co-workers; and (4) the recognition of the impact of the global economy on various occupations and professions.

For further information regarding the Global Studies Certificate, please contact Amy Patterson, International Education Coordinator at 920-887-4470 or Dr. Jennifer Lanter, Dean of General Education at 920-924-3163.

Course Number	Course Title	Credits
Component 1: Completion of a study abroad program - AND -		
Component 2: Choose a minimum of 12 credits from the following courses:		
102-120	Principles of Management	3
104-110	Global Marketing	3
104-140	Integrated Marketing Communications	3
105-160	Business Law	3
106-135	Business Technology and Innovation	3
140-192	International Study	1
196-169	Diversity and Change Management	3
307-179	ECE: Child Development	3

Course Number	Course Title	Credits
307-195	ECE: Family and Community Relationships	3
316-175	Specialty Foods and Ethnic Cookery	3
504-181	Ethnicity, Corrections and Supervision	3
543-101	Nursing Fundamentals	2
543-104	Nursing: Introduction to Clinical Practice	2
543-110	Nursing: Mental Health and Community Concepts	2
550-135	Diversity in Counseling	3
801-141	Introduction to Mass Communications	3
801-196	Oral and Interpersonal Communication	3
801-197	Technical Reporting	3
806-122	Natural Sciences in Society	3
809-159	Abnormal Psychology	3
809-166	Introduction to Ethics: Theory and Application	3
809-172	Introduction to Diversity Studies	3
809-195	Economics	3
809-196	Introduction to Sociology	3
809-300	Occupational Success Strategies	2
Total		12

credits minimum

Individualized Technical Studies

Associate of Applied Science Degree: 10-825-1

The Individualized Technical Studies (ITS) associate of applied science degree is a flexible program intended for students with unique backgrounds and specific career goals that can't be met by enrolling in any single program currently offered by the College. The ITS degree gives students the option to create a unique program by combining associate degree level courses from two or more existing Moraine Park programs. At least 20 credits must be from one discipline. ITS students work with an occupational mentor of their choosing and a team of college staff to design a sound, industry-specific program that considers the student's career goals and prior work experiences. As a result, students achieve their career goals by acquiring knowledge and skills tailored to their specific

employment needs. Students may be eligible for credit for prior learning based on previous work experience, coursework or military service training. Documentation of prior learning can be submitted in a request for advanced standing in degree program courses. A minimum of 25 percent of the total program requirements must be earned at Moraine Park.

Course Number	Course Title	Credits
Institutional Requirements - 3 credits		
**103-159	Computer Literacy - Microsoft Office	1
**890-101	College 101	2
Individual Technical Studies Courses - 40 to 46 Credits		

Coursework is based on the student's Career Outcome Statements. A minimum of 20 associate of applied science degree-level credits must be focused in one discipline. A discipline is described as a program cluster such as finance, information technology, manufacturing, or health care.

General Studies Courses - 21-30 Credits Communications - 6 Credits minimum (Select 801-136 English Composition 1 and one additional course)

801-136	English Composition 1 (and)	3
801-1XX	Additional Associate-level Communication Course Related to Degree	3

Mathematics or Science - 3 credits minimum

804-1xx	Associate-level College Mathematics or advanced mathematics course (or)	3-4
806-1xx	Associate-level Science Course Related to Degree	3-4

Social Science - 3 credits minimum (809-166 Introduction to Ethics required for Associate degree)

809-166	Introduction to Ethics: Theory and Application	3
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Behavioral Science - 3 credits minimum

809-1xx	Other Associate-level Behavioral Science Course Related to Degree	3
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Additional General Education Electives 6-15 Total Program Credits and Institutional Requirements 60-70

Exit Assessment

An Individualized Technical Studies Exit Assessment is a graduation requirement for this program.

(continued)

General Studies (cont.)

Individualized Technical Studies (cont.)

Institutional Requirements

** The credits for 103-159 Computer Literacy - Microsoft Office and 890-101 College 101 are Institutional Requirements for graduation. Consequently, they are not part of the program credit requirements.

Professional Communication Certificate

Certificate:

97-801-2

This certificate promotes professional communication strategies and processes in the workplace. Communication skills are core among key skill sets employers seek, and while traditionally considered the “soft skills”, strong communication skills and competencies strengthen an employee’s value to the company.

For further information regarding the Professional Communication Certificate, please contact Shannon Zupke, Administrative Assistant in General Education at 920-929-2113 or Dr. Jennifer Lanter, Dean of General Education at 920-924-3163.

Course Number	Course Title	Credits
103-159	**Computer Literacy - Microsoft Office	1
106-111	Business Communications	3
106-113	Business Publications	3
801-136	English Composition 1	3
801-141	Introduction to Mass Communications	3
801-196	Oral and Interpersonal Communication	3
	- OR -	
801-198	Speech	3
801-197	Technical Reporting	3
Total		19

Wellness Promotion Certificate

Certificate:

97-546-1

The Wellness Promotion Certificate is designed to educate students in the application of the core principles of wellness for helping others to prevent illness or injury and to improve health for individuals or in a company setting. It also provides an opportunity for allied health, managerial and human resource students to continue their health related education and to add value to their programs of study.

The Wellness Promotion Certificate consists of 3 core courses that cover the basic principles of wellness assessment, physical fitness, nutri-

tion and weight management, emotional and spiritual wellness, environmental wellness, stress management and healing. Students learn to apply these principles through coaching and workplace wellness promotion. Successful completion of the certificate will provide students with the opportunity to conduct wellness assessments and to design individual and company wellness programs.

For further information regarding the Wellness Promotion Certificate, please contact either Ronaldo Cordeiro, Academic advisor, at 920-924-6376 or Shannon Zupke, Administrative Assistant in General Education at 920-929-2113.

Course Number	Course Title	Credits
103-159	**Computer Literacy - Microsoft Office	1
546-100	Wellness, Health and Healing	3
546-120	Advanced Wellness Concepts	3
546-121	Wellness Coaching and Promotion	3
801-136	English Composition 1	3
	- OR -	
801-196	Oral and Interpersonal Communication	3
806-177	General Anatomy and Physiology	4
	- OR -	
806-189	Basic Anatomy	3
809-166	Introduction to Ethics: Theory and Application	3
Total		19

Health Science and Human Services

Advanced Emergency Medical Technician

Technical Diploma:

30-531-6

Moraine Park Technical College’s Advanced Emergency Medical Technician course builds upon the basic Emergency Medical Technician curriculum. Students learn advanced patient assessment, communication skills and beginning advanced life support interventions through participation in clinical experiences beyond the basic Emergency Medical Technician level.

Course Number	Course Title	Credits
Term 1		
531-304	Advanced Emergency Medical Technician	4
Total		4

Alcohol and Other Drug Abuse Associate (AODA)

Associate of Applied Science Degree:

10-550-1

Moraine Park’s AODA associate of applied science degree provides the foundational knowledge, skills and practical experience to prepare students to counsel and treat clients with substance use disorders. The program meets all educational requirements for counselor certification and prepares them for counselor certification examination. Upon completion of the associate degree in AODA, students are awarded 500 hours for being an approved program and an additional 468 hours of clinical experience for a total of 968 hours towards the required 4,000 hours of clinical experience needed for counselor certification as a Substance Abuse Counselor with the Department of Safety and Professional Services of the State of Wisconsin.

Graduates find employment as alcohol and other drug abuse associates/counselors. The associate of applied science degree meets the educational requirements for certification with the Department of Safety and Professional Services of the State of Wisconsin. Individuals in this AODA profession work with clients and their families to develop new lifestyles and coping methods for resolving personal conflicts without turning to alcohol and drugs for solutions.

Listening, negotiating, planning, writing and counseling skills and the ability to assist others are important personal attributes of AODA professionals.

Alcohol and Other Drug Abuse is accredited or approved by the Department of Safety and Professional Services.

(continued)

Health Science and Human Services (cont.)

Alcohol and Other Drug Abuse Associate (AODA) (cont.)

Course Number	Course Title	Credits
Term 1		
103-159	**Computer Literacy - Microsoft Office	1
550-106	Physiological Complications and Psychopharmacology	3
550-112	Client Rights, Confidentiality and Ethics	3
550-125	Counseling Skills and Practice	3
801-136	English Composition 1	3
809-198	Introduction to Psychology - OR -	3
809-199	Psychology of Human Relations	3
890-101	**College 101	2
Total		18

Term 2		
550-121	Introduction to Substance Abuse Treatment	4
550-140	Counseling Theory and Practice	3
550-141	Group Facilitation	3
550-142	Introduction to Community Mental Health	3
801-196	Oral and Interpersonal Communication - OR -	3
801-198	Speech	3
Total		16

Term 3		
550-131	Crisis Management	2
550-135	Diversity in Counseling	3
550-150	Family Systems	3
550-160	On-Campus Talk About Alcohol	1
804-107	College Mathematics - OR -	3
806-122	Natural Sciences in Society	3
809-166	Introduction to Ethics: Theory and Application	3
809-188	Developmental Psychology	3
Total		18

Term 4		
550-155	AODA Internship Seminar	3
550-156	Alcohol and Other Drug Abuse Internship 1	4
550-157	Alcohol and Other Drug Abuse Internship 2	4
550-161	Motivational Interviewing	3
809-196	Introduction to Sociology	3
Total		17

Required Elective Credits		3
Total Program Credits and Institutional Requirements		72

Exit Assessment

An Internship is the exit assessment graduation requirement for the program.

Institutional Requirements

** The credits for 103-159 Computer Literacy - Microsoft Office and 890-101 College 101 are Institutional Requirements for graduation.

Alcohol and Other Drug Abuse Associate (AODA) Certification Preparation Certificate

Certificate:

97-550-1

Selected courses from the associate of applied science degree program, Alcohol and Other Drug Abuse Associate (AODA), contain competencies required for counselor certification. The AODA Certificate program is designed for professionals who already have a degree in human services and are interested in acquiring an additional specialty in AODA counseling.

Course Number	Course Title	Credits
Term 1		
550-106	Physiological Complications and Psychopharmacology	3
550-112	Client Rights, Confidentiality and Ethics	3
550-121	Introduction to Substance Abuse Treatment	4
550-125	Counseling Skills and Practice	3
550-131	Crisis Management	2
550-135	Diversity in Counseling	3
550-140	Counseling Theory and Practice	3
550-141	Group Facilitation	3
550-142	Introduction to Community Mental Health	3
550-150	Family Systems	3
Total		30

Child Care Services

Technical Diploma:

31-307-1

The Child Care Services technical diploma is part of a cluster of programs designed to meet the increasing demand for quality child care.

The coursework provides students with the foundational knowledge and skills to understand the emotional, mental and physical development of young children; how to create developmentally appropriate classroom activities; how to guide behaviors; and how to provide a healthy, well-rounded learning environment.

These skills are applied in practicum experiences where students gain hands-on experience working with children in local child care centers. This program prepares students for jobs in a variety of early childhood settings.

The Child Care Services program is part of the first year of Moraine Park's Early Childhood Education associate of applied science degree. All the Child Care Services classes are directly

transferable into the Early Childhood Education program if students wish to continue their education.

Both Fond du Lac and West Bend offer the complete program. A few courses are offered online. Fond du Lac offers primarily day courses and West Bend primarily evening classes.

Scholarships may be available for students who are employed in a licensed or exempt early childhood center or a licensed or certified family child care program. Applicants must have the support of their employer and possess a high school diploma or GED.

Course Number	Course Title	Credits
Term 1		
307-151	ECE: Infant and Toddler Development	3
307-167	ECE: Health, Safety and Nutrition	3
307-174	ECE: Practicum 1	3
307-178	ECE: Art, Music and Language Arts	3
307-188	ECE: Guiding Children's Behavior	3
801-136	English Composition 1	3
890-101	**College 101	2
Total		20

Term 2		
103-159	**Computer Literacy - Microsoft Office 1	
307-148	ECE: Foundations of Early Childhood Education	3
307-179	ECE: Child Development	3
307-187	ECE: Children With Differing Abilities	3
307-192	ECE: Practicum 2	3
307-194	ECE: Math, Science and Social Studies	3
307-195	ECE: Family and Community Relationships	3
Total		19

Total Program Credits and Institutional Requirements		39
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Exit Assessment

Capstone Projects and Demonstrations are an exit assessment graduation requirement for the program.

Institutional Requirements

** The credits for 103-159 Computer Literacy - Microsoft Office and 890-101 College 101 are Institutional Requirements for graduation.

Chiropractic Specialist

Associate of Applied Science Degree: 10-523-1

Moraine Park's Chiropractic Specialist associate of applied science degree is the only program of its kind in the Wisconsin Technical College System. Students develop knowledge and skills in a variety of areas related to chiropractic healthcare, including office management and

(continued)

Health Science and Human Services (cont.)

Chiropractic Specialist (cont.)

insurance procedures, patient therapies, nutrition, patient education and taking x-rays. As part of the experience, students rotate through a variety of internship experiences.

Graduates, under the supervision of a chiropractor, perform functions and services that are preparatory or complementary to chiropractic adjustments. Skills learned in the program include patient examination, physiotherapy treatment, chiropractic radiology, patient education and nutrition education, office procedures and management skills.

Additionally, this exciting health care career option is offered at the West Bend campus. Program courses meet typically one day a week and online, giving you the convenience to complete your degree close to home and the ability to continue to work and earn your associate's degree with some flexibility.

Graduates have the option of becoming nationally certified in radiology by the American Chiropractic Registry of Radiologic Technologists.

Chiropractic Specialist - Wisconsin
Chiropractic Examining Board and approved by the American Chiropractic Registry of Radiologic Technologists

Course Number	Course Title	Credits
Term 1		
103-159	**Computer Literacy - Microsoft Office	1
501-101	Medical Terminology	3
523-110	Natural Wellness Concepts	2
523-113	Chiropractic Foundations	3
523-140	Chiropractic Office Procedures	3
523-151	Chiropractic Radiographic Dynamics	3
890-101	**College 101	2
Total		17
Term 2		
523-155	Chiropractic Radiographic Positioning	3
523-165	Chiropractic Insurance	3
523-170	Chiropractic Conjunctive Therapy	3
523-190	Chiropractic Office Procedures Internship	2
801-136	English Composition 1	3
804-107	College Mathematics - OR -	3
806-189	Basic Anatomy	3
Total		17
Term 3		
523-120	Fitness for Life	2
523-125	Nutrition	2

Course Number	Course Title	Credits
523-163	Chiropractic Radiographic and Conjunctive Therapy	4
523-171	Chiropractic Patient Education	3
801-196	Oral and Interpersonal Communication	3
	- OR -	
801-198	Speech	3
	- OR -	
801-141	Introduction to Mass Communications	3
809-195	Economics	3
	- OR -	
809-172	Introduction to Diversity Studies	3
Total		17
Term 4		
523-145	Chiropractic Office Management Applications	2
523-161	Chiropractic Examination	3
523-167	Chiropractic Insurance Internship	2
809-166	Introduction to Ethics: Theory and Application	3
809-196	Introduction to Sociology	3
809-198	Introduction to Psychology	3
	- OR -	
809-199	Psychology of Human Relations	3
Total		16
Required Elective Credits		
Total Program Credits and Institutional Requirements		
		70

Exit Assessment

A paper portfolio exit assessment is a graduation requirement for the program.

Institutional Requirements

** The credits for 103-159 Computer Literacy - Microsoft Office and 890-101 College 101 are Institutional Requirements for graduation.

Chiropractic Technician: Office Certificate

Certificate: 97-523-2

Prepares students for careers as front office staff for doctors of chiropractic. Skills transfer well to other small clinic settings. Participation in three office internships makes for practical application in authentic settings.

Course Number	Course Title	Credits
Term 1		
501-101	Medical Terminology	3
523-110	Natural Wellness Concepts	2
523-140	Chiropractic Office Procedures	3
523-145	Chiropractic Office Management Applications	2
523-165	Chiropractic Insurance	3
523-190	Chiropractic Office Procedures Internship	2
Total		15

Chiropractic Technician: Radiography Certificate: 97-523-3

Prepares students for careers as radiographic assistants to doctors of chiropractic. Upon completion, student will satisfy current State of Wisconsin Delegation law* in the area of radiography subject to state certification.

*State laws are subject to change.

Course Number	Course Title	Credits
Term 1		
523-110	Natural Wellness Concepts	2
523-113	Chiropractic Foundations	3
523-151	Chiropractic Radiographic Dynamics	3
523-155	Chiropractic Radiographic Positioning	3
531-450	BLS for Healthcare Providers	.15
Total		11.15

Chiropractic Technician: Therapy Certificate: 97-523-4

Prepares students for careers as assistants to doctors of chiropractic. Upon completion, student will satisfy current State of Wisconsin Delegation law* in the areas of therapies, preliminary examination and case history.

*State laws are subject to change. State certification required.

Course Number	Course Title	Credits
Term 1		
523-110	Natural Wellness Concepts	2
523-113	Chiropractic Foundations	3
523-161	Chiropractic Examination	3
523-170	Chiropractic Conjunctive Therapy	3
531-450	BLS for Healthcare Providers	.15
Total		11.15

Court Reporting Associate of Applied Science Degree: 10-106-1

You've seen high-profile trials with a person keying the testimony into a stenograph machine or read the scrolling captions for the hearing-impaired on your TV screen. The person recording the spoken words at speeds ranging from 180 to 225 words a minute is a court reporter. If you're an excellent listener, have strong language and communications skills, and are committed to accuracy and

(continued)

Health Science and Human Services (cont.)

Court Reporting (cont.)

confidentiality, a career in court reporting may be a perfect fit for you.

Lakeshore Technical College offers its Court Reporting program in cooperation with technical colleges across the state. As a court reporting student, you'll attend live, interactive television classes sent from Lakeshore Technical College to Moraine Park. General studies classes and labs can be taken at Moraine Park.

Course Number	Course Title	Credits
Moraine Park Courses		
801-136	English Composition 1 - OR -	3
801-195	Written Communication (LTC)	3
801-196	Oral and Interpersonal Communication 3 - OR -	3
801-198	Speech	3
809-122	Introduction to American Government 3 - OR -	3
809-172	Introduction to Diversity Studies	3
809-196	Introduction to Sociology	3
809-195	Economics - OR -	3
809-144	Macroeconomics (LTC)	3
804-107	College Mathematics - OR -	3
804-123	Math with Business Applications (LTC) 3 - OR -	3
806-112	Principles of Sustainability (LTC)	3
809-198	Introduction to Psychology	3
Lakeshore Courses		
170-106	Realtime Reporting 1 (LTC)	5
170-804	Realtime Reporting 1 Lab (LTC)	1
170-144	Realtime Reporting Orientation (LTC)	1
170-160	Legal Terminology (LTC)	1
170-105	Realtime Reporting 2 (LTC)	5
170-805	Realtime Reporting 2 Lab (LTC)	1
170-159	Realtime Reporting Technology (LTC)	2
170-184	English for Realtime Reporters (LTC)	1
170-108	Realtime Reporting Speed Development (LTC)	2
170-110	Deaf Culture for Broadcast Captioners (LTC)	1
170-104	Broadcast Captioning Research Methods (LTC)	1
170-109	Literary 1 - Advanced (LTC)	2
170-128	Jury Charge 1 - Advanced (LTC)	2
170-156	Testimony 1 - Advanced (LTC)	3
170-859	Testimony 1 Lab - Advanced (LTC)	1
170-171	Medical Reporting and Terminology (LTC)	2
170-161	Realtime Reporting Technology Advanced (LTC)	2
170-145	Court Reporting Internship (LTC)	1
170-111	Literary 2 - Advanced (LTC)	2
170-129	Jury Charge 2 - Advanced (LTC)	2
170-157	Testimony 2 - Advanced (LTC)	3
170-857	Testimony 2 Lab - Advanced (LTC)	1
170-146	Four Voice (LTC)	1
170-141	Court Reporting Procedures (LTC)	2
170-101	Captioning/CART (LTC)	3
Total		69

Course Number	Course Title	Credits
Beginning Courses Required Prior to Advanced Courses		
170-121	Jury Charge 1 - Beginner	2 crs.
170-122	Jury Charge 2 - Beginner	2 crs.
170-113	Literary 1 - Beginner	2 crs.
170-114	Literary 2 - Beginner	2 crs.
170-153	Testimony 1 - Beginner	3 crs.
170-154	Testimony 2 - Beginner	3 crs.
Optional Credits		
170-140	Realtime Reporting Speed Maintenance	2 crs.

Criminal Justice - Corrections

Associate of Applied Science Degree: 10-504-2

The Criminal Justice - Corrections program is an accredited two-year associate of applied science degree program that prepares students for positions in a variety of corrections careers ranging from least restrictive settings, such as group homes, to highly restrictive maximum-security prisons.

Students may begin correctional employment immediately upon graduation, continue on with their four-year degree, or work to get the combination of work and education required for specific positions such as probation and parole agent. Many current professionals enroll in the program to enhance career advancement opportunities.

This program focuses on the "soft skills" necessary for success in this field. Students are trained in paraprofessional counseling skills focused on the empowerment model. Many counties require the associate of applied science degree or 60 college credits. A graduate of Moraine Park's program, once hired in these jail positions, can expect to earn \$15 to \$16 per hour.

The field of corrections needs people with high ethical standards, positive human values, supportive attitudes and effective listening and negotiating skills.

Course Number	Course Title	Credits
Term 1		
103-159	**Computer Literacy - Microsoft Office	1
504-102	Careers in Corrections	3
504-110	Introduction to Criminal Justice Supervision	3
504-181	Ethnicity, Corrections and Supervision	3
801-136	English Composition 1	3

Course Number	Course Title	Credits
809-198	Introduction to Psychology - OR -	3
809-199	Psychology of Human Relations	3
890-101	**College 101	2
Total		18

Term 2		
504-930	Security Procedures	3
504-931	Communication Skills	3
504-933	Correctional Report Writing	3
801-196	Oral and Interpersonal Communication 3 - OR -	3
801-198	Speech	3
809-159	Abnormal Psychology - OR -	3
809-188	Developmental Psychology	3
Total		15

Term 3		
504-143	Probation and Parole	3
504-155	Stress Management	3
504-162	Corrections Internship	2
504-937	Juvenile Supervision	3
804-107	College Mathematics - OR -	3
806-122	Natural Sciences in Society	3
809-166	Introduction to Ethics: Theory and Application	3
Total		17

Term 4		
504-136	Correctional Counseling	3
504-932	Adult Supervision	3
504-934	Correctional Law and Code	3
504-935	Corrections Summary Assessment	1
504-936	Emergency Procedures	3
809-196	Introduction to Sociology	3
Total		16

Required Elective Credits	3
Total Program Credits and Institutional Requirements	69

Exit Assessment

504-935 Corrections Summary Assessment is the exit assessment graduation requirement for this program.

Institutional Requirements

** The credits for 103-159 Computer Literacy - Microsoft Office and 890-101 College 101 are Institutional Requirements for graduation.

Early Childhood Administrative Credential Certificate:

97-307-1

The Early Childhood Administrative Credential Certificate is comprised of six courses (18 credits) that address the many roles of program administrators and directors in early childhood settings. Students gain more knowledge in areas such as staffing, budget development, facilities

(continued)

Health Science and Human Services (cont.)

Early Childhood Administrative Credential Certificate (cont.)

management, determining community needs, understanding laws and regulations as well as best practices and performance standards.

The coursework is designed for current administrators, supervisors and child care teachers from early childhood settings who want to develop a stronger knowledge base of the administrative role. Upon completion, students may also apply to the Registry for the Wisconsin Professional Credential for Child Care Administrators.

Scholarships may be available for students who are employed in a licensed or exempt early childhood center or a licensed or certified family child care program. Applicants must have the support of their employer and possess a high school diploma or GED. Scholarships for the Early Childhood Administrative Credential Certificate are available through the Wisconsin Early Childhood Association.

Course Number	Course Title	Credits
Term 1		
307-131	Administration and Supervision	3
307-132	Operations Management	3
307-133	Financial Management	3
307-134	Early Childhood Programs and the External Environment	3
307-135	Best Practices	3
307-136	Administrative Seminar	3
Total		18

Early Childhood Education Associate of Applied Science Degree: 10-307-1

The Early Childhood Education program prepares students to work as teacher-caregivers in early childhood settings. It combines hands-on field-work in area centers with related academic work at the College. Graduates become responsible for the care and education of children in the birth-to-eight years 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.

Students experience a variety of learning opportunities with increasing responsibility for working with children in local child care settings.

Both Fond du Lac and West Bend offer the complete program. A few courses are offered

online. Fond du Lac offers primarily day courses and West Bend primarily evening classes.

Scholarships may be available for students who are employed in a licensed or exempt early childhood center or a licensed or certified family child care program. Applicants must have the support of their employer and possess a high school diploma or GED.

Course Number	Course Title	Credits
Term 1		
307-151	ECE: Infant and Toddler Development	3
307-167	ECE: Health, Safety and Nutrition	3
307-174	ECE: Practicum 1	3
307-178	ECE: Art, Music and Language Arts	3
307-188	ECE: Guiding Children's Behavior	3
801-136	English Composition 1	3
890-101	**College 101	2
Total		20

Term 2		
103-159	**Computer Literacy - Microsoft Office	1
307-148	ECE: Foundations of Early Childhood Education	3
307-179	ECE: Child Development	3
307-187	ECE: Children With Differing Abilities	3
307-192	ECE: Practicum 2	3
307-194	ECE: Math, Science and Social Studies	3
307-195	ECE: Family and Community Relationships	3
Total		19

Term 3		
307-166	ECE: Curriculum Planning	3
307-197	ECE: Practicum 3	3
801-196	Oral and Interpersonal Communication	3
	- OR -	
801-198	Speech	3
	- OR -	
801-141	Introduction to Mass Communications	3
804-107	College Mathematics	3
	- OR -	
806-122	Natural Sciences in Society	3
809-166	Introduction to Ethics: Theory and Application	3
Total		15

Term 4		
307-132	Operations Management	3
307-199	ECE: Practicum 4	3
809-172	Introduction to Diversity Studies	3
809-196	Introduction to Sociology	3
809-198	Introduction to Psychology	3
	- OR -	
809-199	Psychology of Human Relations	3
Total		15

Required Elective Credits	3
Total Program Credits and Institutional Requirements	72

Exit Assessment

Capstone Projects/Demonstrations are an exit assessment graduation requirement for the program.

Institutional Requirements

** The credits for 103-159 Computer Literacy - Microsoft Office and 890-101 College 101 are Institutional Requirements for graduation.

Early Childhood Inclusion Credential Certificate

Certificate: 97-307-B

Working with children who have special needs can present unique challenges and opportunities to the child care industry and early childhood education field in Wisconsin. Even experienced practitioners have felt intimidated in serving this population due to a lack of up-to-date information and a well thought-out service approach. This credential is designed to help you build the skills, knowledge, resources and attitudes to successfully work with ALL children in your centers and programs. Courses can be taken in any order and concurrently as long as the Capstone Course (307-112 Family and Team-Centered Practices) is taken last.

Course Number	Course Title	Credits
Term 1		
307-187	ECE: Children With Differing Abilities	3
307-110	Behavioral and Emotional Challenges	3
307-111	Special Health Care Needs	3
307-112	Family and Team-Centered Practices	3
Total		12

Early Childhood Mentor/Protégé Certificate

Certificate: 97-307-3

The Early Childhood Mentor/Protégé Certificate is designed to enhance the quality of child care by improving the skills and training level of child care teachers. The program provides opportunities for professional networking and strengthens the commitment to a career in the Early Childhood profession. Experienced teachers serve as mentors to new early childhood teachers who are their protégés. Mentors and protégés work together at their child care centers for an "on-the-job" learning experience to further develop best practices, gain more professional skills, and enhance learning environments in early childhood education.

Scholarships may be available for students who are employed in a licensed or exempt early childhood center or a licensed or certified family child care program. Applicants must have the support of their employer and possess a high school diploma or GED. In addition, caregivers participating in these classes must commit to one

(continued)

Health Science and Human Services (cont.)

Early Childhood Mentor/Protégé Certificate (cont.)

year of employment beyond completion of the credential to assure stability in the workforce. Scholarships for the Early Childhood Mentor/Protégé Certificate are available through the Wisconsin Early Childhood Association.

Course Number	Course Title	Credits
Term 1		
307-180	Early Childhood Mentor and Teacher Seminar	2
307-181	Early Childhood Mentors and Protégés at Work	3
Total		5

Early Childhood Preschool Credential Certificate

Certificate:

97-307-A

The Early Childhood Preschool Credential Certificate is designed for individuals working with children ages three to eight. This might include family child care providers, child care teachers, nursery school teachers, certified providers, or anyone wishing to provide a quality environment and learning activities for children in this critical age group.

All the Early Childhood Preschool Credential Certificate classes are directly transferable into the Child Care Services technical diploma and/or Early Childhood Education associate of applied science degree if students wish to continue their education.

Course Number	Course Title	Credits
Term 1		
307-148	ECE: Foundations of Early Childhood Education	3
307-167	ECE: Health, Safety and Nutrition	3
307-178	ECE: Art, Music and Language Arts	3
307-179	ECE: Child Development	3
307-188	ECE: Guiding Children's Behavior	3
307-102	ECE: Preschool Capstone	3
Total		18

Emergency Medical Technician Technical Diploma:

30-531-3

Moraine Park Technical College's Emergency Medical Technician program prepares students for licensure as entry-level ambulance attendants in Wisconsin. Patients' lives often depend

on the quick reactions and competent care provided by emergency medical technicians. EMTs respond to emergencies as varied as vehicle crashes, heart attacks, drownings, childbirths, gunshot wounds, strokes, falls, diabetic emergencies and environmental exposures. As an EMT, you will be trained to assess a scene for hazards, assess both sick and injured patients, apply needed care and transport patients to appropriate facilities. Major topics covered in this program include: patient assessment, airway management, medical emergencies, trauma and EMS operations.

Classes will meet two nights per week during the semester.

Students must possess current certification in Basic Life Support to the American Heart Association's Health Care Provider level, or equivalent approved by the Wisconsin Department of Health and Family Services.

Students must be 18 years of age at the conclusion of the course to qualify for licensure.

Course Number	Course Title	Credits
Term 1		
531-301	Emergency Medical Technician	5
Total		5

Emergency Medical Technician - Paramedic

Technical Diploma:

31-531-1

Moraine Park Technical College's Emergency Medical Technician - Paramedic program prepares students to perform pre-hospital medical procedures. People's lives often depend on the quick reaction and competent care of emergency medical technicians (EMTs) and paramedics. Paramedics with additional advanced training can perform more difficult and demanding pre-hospital medical procedures. Incidents as varied as automobile accidents, heart attacks, drowning, childbirth and gunshot wounds all require immediate, professional medical attention. As a paramedic, you will provide this vital attention as you care for and transport the sick or injured. Major topics to be covered include patient assessment, pharmacology, pediatrics, ambulance/system operations, trauma, respiratory emergencies and medical emergencies.

Students must have a current Emergency Medical Technician license to enroll in the Emergency Medical Technician - Paramedic program.

The **Emergency Medical Technician - Paramedic** program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) in cooperation with the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP).

Course Number	Course Title	Credits
Term 1		
103-159	**Computer Literacy - Microsoft Office	1
531-911	EMS Fundamentals	2
531-912	Paramedic Medical Principles	4
531-913	Patient Assessment Principles	3
531-914	Prehospital Pharmacology	3
531-915	Paramedic Respiratory Management	2
531-916	Paramedic Cardiology	4
531-917	Paramedic Clinical Field 1	3
890-101	**College 101	2
Total		24

Term 2		
531-918	Advanced Resuscitation	1
531-919	Paramedic Medical Emergencies	4
531-920	Paramedic Trauma	3
531-921	Special Patient Populations	3
531-922	EMS Operations	1
531-923	Paramedic Capstone	1
531-924	Paramedic Clinical Field 2	4
Total		17

Total Program Credits and Institutional Requirements 41

Exit Assessment

531-923 Paramedic Capstone is the exit assessment graduation requirement for the program.

Institutional Requirements

** The credits for 103-159 Computer Literacy - Microsoft Office and 890-101 College 101 are Institutional Requirements for graduation.

Health Care Leadership Certificate

Certificate:

97-196-4

This certificate develops the management and leadership skills of the healthcare worker. Current supervisors and those who want to be supervisors build the fundamental skills to be successful in leadership in the healthcare field. Taken from the Leadership Development program, these courses focus on issues relating to leading in a healthcare environment.

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Health Science and Human Services (cont.)

Health Care Leadership Certificate (cont.)

This certificate allows students to take associate of applied science degree courses without the time commitment of a full-time program—the credits can be later applied toward a degree if the student desires. In addition, graduates or students currently enrolled in the program may find they have already completed some of the certificate's requirements.

These classes are offered in the accelerated format and are designed for employed adults. Courses are offered online to accommodate the varied schedules of healthcare providers. Extensive out-of-class work is required.

Courses in this certificate can be customized for on-site company training.

Course Number	Course Title	Credits
Term 1		
196-169	Diversity and Change Management	3
196-189	Team Building and Problem Solving	3
196-190	Leadership Development	3
196-191	Supervision	3
196-192	Managing for Quality	3
Total		15

Health Information Technology Associate of Applied Science Degree: 10-530-1

This field is where health care meets the cutting edge of technology! Health information technicians are specialists in great demand! The HIM professionals can expect to be in high demand as the health sector expands. In fact, the Bureau of Labor Statistics cites health information technology as one of the fastest growing occupations in the U.S. Health information technicians contribute to the quality of care by collecting, analyzing, and reporting health care data. This requires knowledge of disease, treatments, computer systems and organizational skills.

This program can be completed on a full-time or part-time basis. All core program classes are offered online.

Graduates are in great demand by hospitals, clinics, nursing homes, insurance companies, medical research organizations and government agencies.

The **Health Information Technology** program is accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM) <http://cahiim.org>. Graduates are eligible to take the national certification exam offered by the American Health Information Management Association to become Registered Health Information Technicians (RHIT).

Moraine Park's Health Information Technology graduates have exceeded the national pass rate on the RHIT exam for over 25 years. In addition, 100% of program students have received a favorable rating on the professional practice site supervisor evaluation in the five technical domains and employability (core abilities) skills.

Job shadowing in this field is recommended prior to application. For more information about this career: www.ahima.org/careers/intro.cfm.

Course Number	Course Title	Credits
Term 1		
501-101	Medical Terminology	3
501-107	Introduction to Healthcare Computing	2
530-176	Health Data Management	2
530-181	Introduction to the Health Record	1
801-136	English Composition 1	3
806-189	Basic Anatomy	3
	- OR -	
806-177	General Anatomy and Physiology	4
890-101	**College 101	2
Total		16

Term 2		
103-181	Microsoft Access	2
530-177	Healthcare Stats and Research	2
530-178	Healthcare Law and Ethics	2
530-182	Human Diseases for the Health Professions	3
801-196	Oral and Interpersonal Communication	3
	- OR -	
801-198	Speech	3
809-198	Introduction to Psychology	3
	- OR -	
809-199	Psychology of Human Relations	3
Total		15

Term 3		
530-160	Healthcare Informatics	4
530-161	Health Quality Management	3
530-184	CPT Coding	3
530-196	Professional Practice 1	3
530-197	ICD Diagnosis Coding	3
809-196	Introduction to Sociology	3
Total		19

Term 4		
530-185	Healthcare Reimbursement	2
530-194	HIM Organizational Resources	2
530-195	Applied Coding	2
530-198	Professional Practice 2	3

Course Number	Course Title	Credits
530-199	ICD Procedure Coding	2
801-197	Technical Reporting	3
809-166	Introduction to Ethics: Theory and Application	3
Total		17

Total Program Credits and Institutional Requirements 67

Exit Assessment

An Internship is the exit assessment graduation requirement for the program.

Institutional Requirements

** The credits for 890-101 College 101 are Institutional Requirements for graduation.

Infant/Toddler Credential Certificate:

97-307-2

The Infant/Toddler Credential Certificate is composed of four courses (12 credits) that specifically focus on providing care to children from birth to three years of age. Students learn the emotional, mental and physical development for these ages; how to create developmentally appropriate activities; how to guide behaviors; and how to be sensitive to the needs of infants and toddlers. These skills are applied as part of a student internship.

Students are required to develop a portfolio based on the required outcomes for the courses. Upon completion, students will submit the portfolio to the instructor, who will award the certificate. Students may also apply to the Registry for the Wisconsin Professional Credential for Infant/Toddler Caregivers.

Scholarships may be available for students who are employed in a licensed or exempt early childhood center or a licensed or certified family child care program.

Scholarships for the Infant/Toddler Credential are available through the Wisconsin Early Childhood Association.

Course Number	Course Title	Credits
Term 1		
307-151	ECE: Infant and Toddler Development	3
307-169	ECE: Infant/Toddler Group Care	3
307-195	ECE: Family and Community Relationships	3
307-196	Infant/Toddler Capstone	3
Total		12

Health Science and Human Services (cont.)

Legal Administrative Professional

Associate of Applied Science Degree: 10-106-3

The Legal Administrative Professional program prepares students to provide client services; produce and coordinate legal communications, documents and information; and organize and maintain files. The coursework focuses on concepts, procedures and skills specific to the legal environment.

Individuals interested in this career are detail-oriented, have strong communication skills and enjoy working with others.

Graduates are employed in private law firms, the court system, government offices, financial trust departments or private industry. They work in a variety of law fields including bankruptcy, business and corporate, criminal, divorce and family, government, trademark and copyright, real estate, civil litigation, tax law, and estate planning.

Course Number	Course Title	Credits
Term 1		
103-159	**Computer Literacy - Microsoft Office	1
106-120	Document Formatting	1
106-163	Database and Spreadsheet Essentials	3
106-178	Legal Office Professional	3
106-181	Document Standards and Expectations	3
801-136	English Composition 1	3
890-101	**College 101	2
Total		16
Term 2		
106-121	Advanced Document Formatting	1
106-135	Business Technology and Innovation	3
106-164	Business Applications for Microsoft Office	3
106-167	Legal Processes and Systems	3
106-182	Document Management	3
801-196	Oral and Interpersonal Communication	3
804-107	College Mathematics	3
Total		19
Term 3		
106-101	Customer Service Essentials	3
106-111	Business Communications	3
106-175	Legal Documents Production 1	2
106-176	Legal Documents Production 2	2
809-195	Economics	3
809-196	Introduction to Sociology	3
Total		16
Term 4		
101-184	Principles of Accounting	3
106-169	Law Office Applications	3
196-189	Team Building and Problem Solving	3
809-166	Introduction to Ethics: Theory and Application	3

Course Number	Course Title	Credits
809-199	Psychology of Human Relations	3
Total		15

Total Program Credits and Institutional Requirements 66

Exit Assessment

Completion of 106-169 Law Office Applications is the exit assessment graduation requirement for this program.

Institutional Requirements

** The credits for 103-159 Computer Literacy - Microsoft Office and 890-101 College 101 are Institutional Requirements for graduation. Consequently, they are not part of the program credit requirements.

Legal Office Skills Certificate

97-106-4

This certificate assists individuals who have general business/office skills in gaining specialized training for the legal office environment and assists individuals currently in the legal environment to enhance their skills or credential their legal work experience.

Coursework is drawn from the Legal Administrative Professional associate of applied science degree to provide an overview of the court system and office functions specific to the legal environment. In addition, students develop the skills to prepare documents for court filing in civil, criminal and small claims cases as well as, but not limited to, documents for real estate, family law and corporate law.

This certificate enables students to take associate of applied science degree courses without the time commitment of a full-time program—the credits can later be applied toward a degree if the student desires.

This certificate can be completed part-time during the days or evenings. A combination of instructor-led and online courses are available to meet the needs of the working adult.

Course Number	Course Title	Credits
Term 1		
106-120	Document Formatting	1
106-167	Legal Processes and Systems	3
106-169	Law Office Applications	3
106-175	Legal Documents Production 1	2
106-176	Legal Documents Production 2	2
106-178	Legal Office Professional	3
Total		14

LPN to ADN Progression Track

Associate of Applied Science Degree: 10-543-1

The LPN to ADN Progression Track is designed for individuals who are currently Wisconsin Licensed Practical Nurses (LPN) and want to become Registered Nurses (RN). The coursework builds upon prior learning.

Advanced standing credit may be awarded for knowledge and skills gained through occupational experiences, prior learning and other advanced placement subject exams. To ensure that students have the academic foundation for higher-level coursework, 19 escrow credits are granted after successful completion of 543-109, 543-110, 543-111 and 543-112. These escrow credits then fulfill the core course requirements for the first year of the Moraine Park Associate Degree Nursing program.

Program graduates are eligible to write the National Council Licensure Examination for registered nurses.

The LPN to ADN Progression Track is accredited by the Accreditation Commission for Education in Nursing, Inc. (ACEN), 3343 Peachtree Road NE, Suite 850, Atlanta, GA 30326 (phone 1-404-975-5000) and the Wisconsin Board of Nursing (phone 1-608-267-2357).

Clinical Admissions Requirements

Petition Requirements (Currently accepted pre-core nursing students, go to myMPTC Student tab for specifics.)

Course Number	Course Title	Credits
543-117	Nursing Bridge to ADN (This course is not counted as part of program credits.)	2
801-136	English Composition 1	3
801-196	Oral and Interpersonal Communication	3
806-177	General Anatomy and Physiology	4
806-179	Advanced Anatomy and Physiology	4
809-188	Developmental Psychology	3

Current WI Licensed Practical Nurse; employment as an LPN for a minimum of 2,080 hours in the last 2 years

Course Number	Course Title	Credits
Total		17
Term 1		
103-159	**Computer Literacy - Microsoft Office	1
543-109	Nursing: Complex Health Alterations 1	3
543-110	Nursing: Mental Health and Community Concepts	2
543-111	Nursing: Intermediate Clinical Practice	3
543-112	Nursing: Advanced Skills	1
806-197	Microbiology	4
809-198	Introduction to Psychology	3

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Health Science and Human Services (cont.)

LPN to ADN Progression Track

(cont.)

Course Number	Course Title	Credits
890-101	**College 101	2

Total 19

19 escrow credits will be granted after successful completion of 543-109, 543-110, 543-111, 543-112 19

Term 2

543-113	Nursing: Complex Health Alterations 2	3
543-114	Nursing: Management and Professional Concepts	2
543-115	Nursing: Advanced Clinical Practice	3
543-116	Nursing Clinical Transition	2
809-166	Introduction to Ethics: Theory and Application	3

Total 13

Total Program Credits and Institutional Requirements 68

Exit Assessment

Clinical evaluations are the exit assessment graduation requirement for the program.

Institutional Requirements

** The credits for 103-159 Computer Literacy - Microsoft Office and 890-101 College 101 are Institutional Requirements for graduation.

Medical Assistant

Technical Diploma:

31-509-1

Moraine Park's Medical Assistant program prepares students to assist the physician in a variety of clinical tasks. Students develop the skills to take medical histories, record vital signs, prepare patients for examination, collect and prepare laboratory specimens, perform basic laboratory tests, draw blood and instruct patients about medications or special diets. As graduates, these clinical tasks are performed under the supervision of a physician and vary according to state law. The main goal of the program is to prepare competent entry-level medical assistants in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains.

Medical assistants may also perform administrative tasks such as billing and insurance, greeting patients on the phone and in person, handling correspondence, scheduling appointments and updating patient medical records. The medical assistant profession is one of the fastest growing occupations.

Graduates of the Medical Assistant program are eligible to write the Certified Medical Assistant (CMA) exam offered by the American Association of Medical Assistants (AAMA) and/or the Registered Medical Assistant (RMA) exam by the American Medical Technologists (AMT).

The **Medical Assistant** program is accredited by the Commission on Accreditation of Allied Health Education Programs upon the recommendation of the Medical Assisting Education Review Board (MAERB). Commission on Accreditation of Allied Health Education Programs, 1361 Park Street, Clearwater, FL, 33756, 727-210-2350. www.caahep.org.

Course Number	Course Title	Credits
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Term 1

501-101	Medical Terminology	3
501-107	Introduction to Healthcare Computing	2
509-101	Medical Assistant Administrative Procedures	2
509-102	Human Body in Health and Disease	3
509-303	Medical Assistant Laboratory Procedures 1	2
509-304	Medical Assistant Clinical Procedures 1	4
890-101	**College 101	2

Total 18

Term 2

501-108	Pharmacology for Allied Health	2
509-107	Medical Office Insurance and Finance	2
509-109	Medical Law, Ethics and Professionalism	2
509-305	Medical Assistant Laboratory Procedures 2	2
509-306	Medical Assistant Clinical Procedures 2	3
509-310	Medical Assistant Practicum	3
801-136	English Composition 1	3

Total 17

Total Program Credits and Institutional Requirements 35

Exit Assessment

509-306 Medical Assistant Clinical Procedures 2 is the exit assessment graduation requirement for the program.

Institutional Requirements

** The credits for 890-101 College 101 are Institutional Requirements for graduation. Consequently, they are not part of the program credit requirements.

Medical Billing Specialist Certificate

Certificate:

97-106-6

The highly specialized professional trend in the medical office is emerging as a result of the changes in the healthcare delivery system and the

continuous growth of managed care. This certificate prepares the student to perform the functions of the extremely complex billing processes in a healthcare organization.

Course Number	Course Title	Credits
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Term 1

501-101	Medical Terminology	3
501-107	Introduction to Healthcare Computing	2
509-102	Human Body in Health and Disease	3
509-107	Medical Office Insurance and Finance	2

Total 10

Term 2

106-151	Specialized Insurance Claims	3
106-152	Electronic Patient Billing	3
509-101	Medical Assistant Administrative Procedures	2
509-109	Medical Law, Ethics and Professionalism	2

Total 10

Total Credits 20

Medical Coding Specialist

Technical Diploma:

31-530-2

The Medical Coding Specialist program prepares individuals for employment as entry-level coding specialists in health care facilities such as hospitals, clinics, physician practice groups, surgery centers, long-term care facilities and home health care agencies. Coding specialists are also employed in consulting firms, coding and billing services, insurance companies, governmental agencies and computer software companies. The medical coding specialist reviews medical documentation provided by physicians and other health care providers and translates this into an alphanumeric classification system. The coding specialist assigns and sequences diagnostic and procedural codes using universally recognized coding systems. Several uses of coded data are for payment of health care claims, statistics and medical research.

The courses are directly transferable into Moraine Park's Health Information Technology associate of applied science degree if students wish to further their education in this field. This diploma can be completed on a full-time or part-time basis. All core program courses are offered online.

Graduates are eligible to take the national Clinical Coding Associate (CCA) certification examina-

(continued)

Health Science and Human Services (cont.)

Medical Coding Specialist (cont.)

tion through the American Health Information Management Association (AHIMA). They may also take AHIMA's national Clinical Coding Specialist (CCS) examination; however, two years of coding experience is recommended before taking the CCS examination.

Course Number	Course Title	Credits
Term 1		
501-101	Medical Terminology	3
530-181	Introduction to the Health Record	1
530-182	Human Diseases for the Health Professions	3
530-197	ICD Diagnosis Coding	3
806-189	Basic Anatomy - OR -	3
806-177	General Anatomy and Physiology	4
890-101	**College 101	2
Total		15

Term 2		
501-107	Introduction to Healthcare Computing	2
530-176	Health Data Management	2
530-184	CPT Coding	3
530-185	Healthcare Reimbursement	2
530-195	Applied Coding	2
530-199	ICD Procedure Coding	2
Total		13

Total Program Credits and Institutional Requirements 28

Exit Assessment

Successful completion of 530-195 Applied Coding is the exit assessment graduation requirement for this program.

Institutional Requirements

** The credits for 890-101 College 101 are Institutional Requirements for graduation.

Medical Laboratory Technician

Associate of Applied Science Degree:

10-513-1

At career entry, the medical laboratory technician will be able to perform routine clinical laboratory tests (such as hematology, clinical chemistry, immunohematology, microbiology, serology/immunology, coagulation, molecular and other emerging diagnostics) as the primary analyst making specimen-oriented decisions on predetermined criteria, including a working knowledge of critical values. Communications skills will extend to frequent interactions with members of the healthcare team, external relations, customer service and patient education. The level of analysis

ranges from waived and point of care testing to complex testing encompassing all major areas of the medical laboratory. The medical laboratory technician will have diverse functions in areas of preanalytical, analytical and post-analytical processes. The medical laboratory technician will have responsibilities for information processing, training and quality control monitoring wherever medical laboratory testing is performed.

The **Medical Laboratory Technician** program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS, 5600 N. River Road, Suite 720, Rosemont, IL 60018; Phone: 773-714-8880). Upon graduation, students are eligible to sit for the National Board of Certification Exam through the ASCP.

Course Number	Course Title	Credits
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Clinical Admissions Requirement:

- 806-177 General Anatomy and Physiology 4
- Must complete the series of three hepatitis B immunizations

Term 1		
103-159	**Computer Literacy - Microsoft Office	1
513-110	Basic Lab Skills	1
513-111	Phlebotomy	2
513-113	Quality Assurance and Laboratory Math	1
513-115	Basic Immunology Concepts	2
801-136	English Composition 1	3
806-186	Introduction to Biochemistry	4
890-101	**College 101	2
Total		16

Term 2		
513-109	Blood Bank	4
513-114	Urinalysis	2
513-120	Basic Hematology	3
513-121	Coagulation	1
801-196	Oral and Interpersonal Communication	3
806-197	Microbiology	4
Total		17

Term 3		
513-130	Advanced Hematology	2
513-131	Clinical Chemistry 1	3
513-132	Clinical Chemistry 2	2
513-133	Clinical Microbiology	4
809-166	Introduction to Ethics: Theory and Application	3
Total		14

Term 4		
513-140	Advanced Microbiology	2
513-151	Clinical Experience 1	3
513-152	Clinical Experience 2	4
513-153	Clinical Experience Seminar	4
513-170	Introduction to Molecular Diagnostics	2
809-198	Introduction to Psychology	3
Total		18

Total Program Credits and Institutional Requirements 69

Exit Assessment

An exit exam is the exit assessment graduation requirement for the program.

Institutional Requirements

** The credits for 103-159 Computer Literacy - Microsoft Office and 890-101 College 101 are Institutional Requirements for graduation.

Medical Office Specialist

Technical Diploma:

31-106-2

Graduates of the Medical Office Specialist program find employment in individual physician's offices, hospitals, outpatient clinics, health insurance companies, laboratories, medical supplies and equipment companies, nursing homes, skilled nursing facilities and public health departments.

Medical Office Specialists combine medical office skills with computer skills. Necessities for the field are strong ethical values and confidentiality standards. Strong human relations skills are important when dealing with the needs of patients on a daily basis.

Major skills learned in the program include:

- Medical Terminology
- Health Insurance/Coding
- Legal and Ethical Compliance in the Healthcare Setting
- Customer Service
- Medical Billing, Scheduling, and Electronic Medical Record Software
- Problem Solving
- Applications Software (Word, Access, Excel, PowerPoint)
- Compose Medical Correspondence

High school courses helpful in preparing for the program are Medical Terminology, Anatomy, keyboarding, computer software and English.

Graduates of the Medical Office Specialist program may be eligible to write the Certified Medical Administrative Specialist (CMAS) exam offered by the American Medical Technologists (AMT).

Course Number	Course Title	Credits
Term 1		
501-101	Medical Terminology	3
501-107	Introduction to Healthcare Computing	2
509-101	Medical Assistant Administrative Procedures	2

(continued)

Health Science and Human Services (cont.)

Medical Office Specialist (cont.)

Course Number	Course Title	Credits
509-102	Human Body in Health and Disease	3
509-107	Medical Office Insurance and Finance	2
801-136	English Composition 1	3
890-101	**College 101	2
Total		17

Term 2

106-151	Specialized Insurance Claims	3
106-152	Electronic Patient Billing	3
106-154	Medical Office Administration	4
106-160	Medical Office Practicum	2
501-108	Pharmacology for Allied Health	2
509-109	Medical Law, Ethics and Professionalism	2
Total		16

Total Program Credits and Institutional Requirements 33

Exit Assessment

106-160 Medical Office Practicum is the exit assessment graduation requirement for the program.

Institutional Requirements

** The credits for 890-101 College 101 are Institutional Requirements for graduation.

Nursing Assistant

Technical Diploma:

30-543-1

The Nursing Assistant program provides classroom theory, laboratory experience and clinical learning that teaches students the skills to perform duties such as taking vital signs, bathing, dressing, making beds, and other direct resident care. Community agencies are used for clinical learning and includes long-term care settings.

Course Number	Course Title	Credits
Term 1		
543-300	Nursing Assistant	3
Total		3

Nursing - Associate Degree With a Practical Nursing Exit Point

Associate of Applied Science Degree: 10-543-1

The Nursing - Associate Degree With a Practical Nursing Exit Point program prepares graduates for careers as nurses (LPN and/or RN) in ambulatory care settings, acute care settings and long-term care organizations, as defined by the Wisconsin

Nurse Practice Act. After successfully completing the first two semesters of the program, students are eligible to write the Practical Nursing National Council Licensure Examination. At this point, students could job out and seek employment as LPNs or continue on in the remaining two semesters and prepare to write the National Council Licensure Examination for Registered Nurses. Petition selection is in spring and fall.

Students receive classroom instruction, laboratory practice and clinical nursing experiences.

The **Nursing** program is accredited by the Accreditation Commission for Education in Nursing, Inc. (ACEN), 3343 Peachtree Road NE, Suite 850, Atlanta, GA 30326 (phone 1-404-975-5000) and the Wisconsin Board of Nursing (phone 1-608-267-2357).

Helpful high school courses include chemistry, biology, mathematics, reading, writing and oral communication.

Course Number	Course Title	Credits
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Clinical Admissions Requirements

- Petition Requirements (Currently accepted pre-core nursing students, go to *myMPTC* Student tab for specifics.)
- 806-177 General Anatomy and Physiology 4
- 806-179 Advanced Anatomy and Physiology 4
- 543-300 Nursing Assistant

Term 1

103-159	**Computer Literacy - Microsoft Office	1
543-101	Nursing Fundamentals	2
543-102	Nursing Skills	3
543-103	Nursing Pharmacology	2
543-104	Nursing: Introduction to Clinical Practice	2

801-136	English Composition 1	3
809-188	Developmental Psychology	3
890-101	**College 101	2
Total		18

Term 2

543-105	Nursing: Health Alterations	3
543-106	Nursing: Health Promotion	3
543-107	Nursing: Clinical Care Across the Lifespan	2
543-108	Nursing: Introduction to Clinical Care Management	2
801-196	Oral and Interpersonal Communication	3
Total		13

Term 3

543-109	Nursing: Complex Health Alterations	3
543-110	Nursing: Mental Health and Community Concepts	2
543-111	Nursing: Intermediate Clinical Practice	3
543-112	Nursing: Advanced Skills	1
806-197	Microbiology	4

Course Number	Course Title	Credits
809-198	Introduction to Psychology	3
Total		16

Term 4

543-113	Nursing: Complex Health Alterations 2	3
543-114	Nursing: Management and Professional Concepts	2
543-115	Nursing: Advanced Clinical Practice	3
543-116	Nursing Clinical Transition	2
809-166	Introduction to Ethics: Theory and Application	3
Total		13

Total Program Credits and Institutional Requirements 68

Exit Assessment

An exit assessment is a graduation requirement for Practical Nursing Exit. Clinical evaluations are an exit assessment graduation requirement for the Associate Degree Nursing program.

Institutional Requirements

** The credits for 103-159 Computer Literacy - Microsoft Office and 890-101 College 101 are Institutional Requirements for graduation.

Paralegal

Associate of Applied Science Degree: 10-110-1

Paralegals work under the supervision of lawyers in a range of tasks—researching the law; investigating; preparing for hearings, trials and real estate closings; interviewing clients and witnesses; and preparing legal documents and other legal correspondence. Paralegals cannot give legal advice or represent clients in court. If you are detail-oriented, organized, strong in communications and enjoy researching and analyzing facts, you might find a career as a paralegal very rewarding.

Lakeshore Technical College (LTC) offers its Paralegal program classes at LTC and also at Moraine Park via live interactive technology. As a Paralegal student, you'll attend live classes at the LTC campus or attend live interactive IVC classes at Moraine Park. General studies classes and labs can be taken at Moraine Park.

Course Number	Course Title	Credits
Moraine Park Courses		
101-112	Accounting 1 - OR -	4
101-155	Accounting for Professionals (LTC)	3
105-160	Business Law	3
801-136	English Composition 1 - OR -	3
801-195	Written Communication (LTC)	3
801-196	Oral and Interpersonal Communication	3

(continued)

Health Science and Human Services (cont.)

Paralegal (cont.)

Course Number	Course Title	Credits
804-107	College Mathematics - OR -	3
806-112	Principles of Sustainability (LTC)	3
809-122	Introduction to American Government	3
809-195	Economics	3
809-196	Introduction to Sociology	3
809-198	Introduction to Psychology	3
Lakeshore Courses		
103-181	Word 2013 - Level 1	1
110-101	Introduction to Paralegalism and Legal Ethics	3
110-102	Civil Litigation 1	3
110-103	Civil Litigation 2	3
110-104	Legal Research	3
110-105	Legal Writing	3
110-106	Family Law	3
110-107	Legal Aspects of Business Organizations	3
110-114	Administration of Estates	3
110-130	Real Estate Law — Paralegal	3
110-131	Personal Branding - Paralegal	2
110-143	Paralegal Internship - OR -	2
110-145	Paralegal Studies	2
110-160	Employment Law	3
110-168	Criminal Law-Paralegal	3
110-179	Portfolio Assessment - Paralegal	1
Total		66

Paramedic Technician

Associate of Applied Science Degree: 10-531-1

Moraine Park Technical College's Paramedic Technician program prepares students to perform prehospital medical procedures. People's lives often depend on the quick reaction and competent care of emergency medical technicians (EMTs) and paramedics. Paramedics with additional advanced training can perform more difficult and demanding prehospital medical procedures. Incidents as varied as automobile accidents, heart attacks, drowning, childbirth and gunshot wounds all require immediate, professional medical attention. As a paramedic, you will provide this vital attention as you care for and transport the sick or injured. Major topics to be covered include patient assessment, pharmacology, pediatrics, ambulance/system operations, trauma, respiratory emergencies and medical emergencies.

Students must have a current Emergency Medical Technician license to enroll in the Paramedic Technician program. General Studies courses may be completed on a part-time basis for this program.

The **Paramedic Technician** program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) in cooperation with the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP).

Course Number	Course Title	Credits
Term 1		
103-159	**Computer Literacy - Microsoft Office	1
531-911	EMS Fundamentals	2
531-912	Paramedic Medical Principles	4
531-913	Patient Assessment Principles	3
531-914	Prehospital Pharmacology	3
531-915	Paramedic Respiratory Management	2
531-916	Paramedic Cardiology	4
531-917	Paramedic Clinical Field 1	3
890-101	**College 101	2
Total		24
Term 2		
531-918	Advanced Resuscitation	1
531-919	Paramedic Medical Emergencies	4
531-920	Paramedic Trauma	3
531-921	Special Patient Populations	3
531-922	EMS Operations	1
531-923	Paramedic Capstone	1
531-924	Paramedic Clinical Field 2	4
Total		17
Term 3		
801-136	English Composition 1	3
801-196	Oral and Interpersonal Communication	3
806-177	General Anatomy and Physiology	4
809-198	Introduction to Psychology	3
Total		13
Term 4		
806-179	Advanced Anatomy and Physiology	4
806-197	Microbiology	4
809-166	Introduction to Ethics: Theory and Application	3
809-196	Introduction to Sociology	3
809-188	Developmental Psychology	3
Total		17
Total Program Credits and Institutional Requirements		71
Exit Assessment		
531-923 Paramedic Capstone is the exit assessment graduation requirement for the program.		
Institutional Requirements		
** The credits for 103-159 Computer Literacy - Microsoft Office and 890-101 College 101 are Institutional Requirements for graduation.		

Course Number	Course Title	Credits
Term 1		
501-101	Medical Terminology	3
501-102	*Health Insurance and Reimbursement	3
536-110	**Pharmaceutical Calculations	3
536-113	**Pharmacy Business Applications	3
536-115	**Pharmacy Law	2
536-120	**Fundamentals of Reading Prescriptions	1
536-122	**Pharmacology	3
Total		18
Term 2		
536-125	**Pharmacy Drug Distribution Systems	2
536-126	**Pharmacy Parenteral Admixtures	3
536-139	**Pharmacy Community Clinical	3
536-141	*Pharmacy Computer Lab	2
536-143	***Pharmacy Hospital Clinical	2
801-196	Oral and Interpersonal Communication - OR -	3
801-198	Speech	3
809-198	Introduction to Psychology - OR -	3
809-199	Psychology of Human Relations	3
Total		18
Total Program Credits and Institutional Requirements		36

you trust your pharmacy to correctly interpret and fill your prescriptions. Pharmacy technicians contribute to our safety by assisting pharmacists in a variety of technical tasks. If you're attentive to detail; organized; a good communicator; and like math, science, and working with people, a career as a pharmacy technician may be your prescription for success.

The **Pharmacy Technician** program conducted by Lakeshore Technical College, Cleveland, WI is accredited by the American Society of Health-System Pharmacists.

Special Note: LTC offers its Pharmacy Technician program in cooperation with technical colleges across the state. As a pharmacy technician student, you'll attend live, interactive TV classes sent from LTC to your local technical college; receive laboratory training in local pharmacies; participate in real-world, hands-on training during a four-week clinical program; and take general studies classes at your local technical college.

Course Number	Course Title	Credits
Term 1		
501-101	Medical Terminology	3
501-102	*Health Insurance and Reimbursement	3
536-110	**Pharmaceutical Calculations	3
536-113	**Pharmacy Business Applications	3
536-115	**Pharmacy Law	2
536-120	**Fundamentals of Reading Prescriptions	1
536-122	**Pharmacology	3
Total		18
Term 2		
536-125	**Pharmacy Drug Distribution Systems	2
536-126	**Pharmacy Parenteral Admixtures	3
536-139	**Pharmacy Community Clinical	3
536-141	*Pharmacy Computer Lab	2
536-143	***Pharmacy Hospital Clinical	2
801-196	Oral and Interpersonal Communication - OR -	3
801-198	Speech	3
809-198	Introduction to Psychology - OR -	3
809-199	Psychology of Human Relations	3
Total		18
Total Program Credits and Institutional Requirements		36

Courses with no asterisks are offered at Moraine Park. *Courses are available only at Lakeshore Technical College.

**Courses are offered at Lakeshore Technical College or IVC (Interactive Video Conferencing) at Moraine Park.

***Courses are at a clinical site.

Pharmacy Technician

Technical Diploma:

31-536-1

If you're ill or injured, you have access to an enormous variety of therapeutic medications, and

Health Science and Human Services (cont.)

Phlebotomy Technician Certificate

Certificate:
97-513-1

This three-course certificate prepares individuals to collect blood specimens via venipuncture and capillary puncture procedures for the purposes of laboratory analysis.

The courses are taken in sequence over two semesters. The first course, Phlebotomy Essentials, provides the student with theory, safety techniques and regulations, infection control, and procedural applications and training. The second course, Basic Lab Skills, is taken concurrently and explores health career options and the fundamental principles and procedures performed in the clinical laboratory. You will utilize medical terminology and basic laboratory equipment. The third course, Phlebotomy Clinical, places students at clinical sites. Travel is required for clinical sites, and clinical times may vary.

Upon completion of the certificate, students may take the national certification examination offered by the Board of Certification.

Course Number	Course Title	Credits
Term 1		
513-100	Phlebotomy Essentials	4
513-110	Basic Lab Skills	1
Total		5
Term 2		
513-101	Phlebotomy Clinical	2
Total		2
Total Credits		7

Radiography

Associate of Applied Science Degree:
10-526-1

Radiography prepares individuals for a career in diagnostic radiology (x-ray) as a radiographer. The radiographer is a technologist who produces images of the human body to aid physicians in the diagnosis of injuries and diseases. Graduates of the program are eligible to take the entry-level certification examination administered by the American Registry of Radiography Technologists (ARRT) and may obtain employment in x-ray departments associated with hospitals, medical clinics, veterinary clinics and private offices. Program curriculum focuses on theoretical and

applied radiography and includes a clinical experience in a radiographic department. Students learn to use x-ray imaging machines to demonstrate body parts on x-ray films for diagnostic purposes, including diagnostic radiology, bedside and trauma procedures, pediatric radiography and special procedures.

The **Radiography** program is accredited by The Joint Review Committee on Education in Radiologic Technology (JRCERT), 20 North Wacker Drive, Suite 2850, Chicago, Illinois 60606-3182, (phone 312-704-5300) email mail@jrcert.org.

Course Number	Course Title	Credits
Clinical Admissions Requirement(s):		
• Petition Process FAQ (Currently accepted pre-core radiography students, go to myMPTC Student tab for specifics.)		
• 804-107 College Mathematics 3		
• 806-177 General Anatomy and Physiology 4		
Term 1		
526-149	Radiographic Procedures 1	5
526-158	Introduction to Radiography	3
526-159	Radiographic Imaging 1	3
526-168	Radiography Clinical 1	2
890-101	**College 101	2
Total		15
Term 2		
103-159	**Computer Literacy - Microsoft Office 1	
526-170	Radiographic Imaging 2	3
526-191	Radiographic Procedures 2	5
526-192	Radiography Clinical 2	3
801-136	English Composition 1	3
Total		15
Term 3		
526-193	Radiography Clinical 3	3
Total		3
Term 4		
526-194	Imaging Equipment Operation	3
526-195	Radiographic Quality Analysis	2
526-199	Radiography Clinical 4	3
801-196	Oral and Interpersonal Communication 3	
809-198	Introduction to Psychology	3
Total		14
Term 5		
526-189	Radiographic Pathology	1
526-190	Radiography Clinical 5	2
526-196	Modalities	3
526-197	Radiation Protection and Biology	3
809-166	Introduction to Ethics: Theory and Application	3
809-196	Introduction to Sociology	3
Total		15
Term 6		
526-174	ARRT Certification Seminar	2
526-198	Radiography Clinical 6	2
Total		4

Course Number	Course Title	Credits
Total Program Credits and Institutional Requirements		73

Exit Assessment

Clinicals and an Accrediting Outcomes Checklist are the exit assessment graduation requirement for the program.

Institutional Requirements

** The credits for 103-159 Computer Literacy - Microsoft Office and 890-101 College 101 are Institutional Requirements for graduation.

Respiratory Therapist

Associate of Applied Science Degree:
10-515-1

Respiratory therapists, as members of a team of health care professionals, work to evaluate, treat and manage patients of all ages with respiratory illnesses and other cardiopulmonary disorders in a wide variety of clinical settings. In addition to performing respiratory care procedures, respiratory therapists are involved in clinical decision-making (such as patient evaluation, treatment selection and assessment of treatment efficacy) and patient education.

The scope of practice for respiratory therapy includes, but is not limited to: assessing the cardiopulmonary status of patients, drawing blood samples, performing blood gas analysis and pulmonary function testing, initiating ordered respiratory care, evaluating and monitoring patients' responses to such care, modifying the prescribed respiratory therapy and cardiopulmonary procedures and life support endeavors to achieve desired therapeutic objectives, providing patient, family and community education, and participating in life support activities as required. At graduation, the student is qualified for admission to the entry-level and advanced practitioner examinations to become a registered respiratory therapist.

The Moraine Park Respiratory Therapist

Program, CoARC #200444, awards an associate of applied science degree. The program is located on the Fond du Lac campus and is accredited by the Commission on Accreditation for Respiratory Care (www.coarc.com).

*Outcomes data from the 2014 Annual Report of Current Status has been posted on the CoARC website. Follow this link directly to the Programmatic Outcomes Data page: <http://www.coarc.com/47.html>.

(continued)

Health Science and Human Services (cont.)

Course Number	Course Title	Credits
Clinical Admissions Requirement(s):		
• Petition Process FAQ (Currently accepted pre-core Respiratory Therapist students, go to <i>myMPTC</i> Student tab for specifics.)		
• 806-177	General Anatomy and Physiology	4
Term 1		
501-101	Medical Terminology	3
515-111	Respiratory Survey	3
515-171	Respiratory Therapeutics 1	3
801-136	English Composition 1	3
806-197	Microbiology	4
890-101	**College 101	2
Total		18
Term 2		
103-159	**Computer Literacy - Microsoft Office	1
515-112	Respiratory Airway Management	2
515-172	Respiratory Therapeutics 2	3
515-173	Respiratory Pharmacology	3
515-174	Respiratory and Cardiac Physiology	3
801-196	Oral and Interpersonal Communication 3 - OR -	3
801-198	Speech	3
Total		15
Term 3		
515-175	Respiratory Clinical 1	2
Total		2
Term 4		
515-113	Respiratory Life Support	3
515-176	Respiratory Disease	3
515-178	Respiratory Clinical 2	3
515-179	Respiratory Clinical 3	3
809-198	Introduction to Psychology - OR -	3
809-199	Psychology of Human Relations	3
Total		15
Term 5		
515-180	Respiratory Neonatal and Pediatric Care	2
515-181	Respiratory and Cardio Diagnostics	3
515-182	Respiratory Clinical 4	3
515-183	Respiratory Clinical 5	3
809-166	Introduction to Ethics: Theory and Application	3
809-196	Introduction to Sociology	3
Total		17
Required Elective Credits		2
Total Program Credits and Institutional Requirements		73
Exit Assessment		
Clinical evaluation of competencies is the exit assessment graduation requirement for the program.		
Institutional Requirements		
** The credits for 103-159 Computer Literacy - Microsoft Office and 890-101 College 101 are Institutional Requirements for graduation.		

Surgical Technology Associate of Applied Science Degree: 10-512-1

Surgical technologists are allied health professionals who are an integral part of the team of medical practitioners providing surgical care to patients in a variety of settings.

The surgical technologist works under medical supervision to facilitate the safe and effective conduct of invasive surgical procedures. This individual works to ensure that the operating room environment is safe, that equipment functions properly, and that the operative procedure is conducted under conditions that maximize patient safety.

A surgical technologist possesses expertise in the theory and application of sterile and aseptic technique and combines the knowledge of human anatomy, surgical procedures, and implementation tools and technologies to facilitate a physician's performance of invasive therapeutic and diagnostic procedures. The clinical case requirement for program completion includes a minimum of 120 cases.

The **Surgical Technology** program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) in cooperation with the Accreditation Review Council on Education in Surgical Technology and Surgical Assisting (ARC/STSA). ARC/STSA is sponsored by the Association of Surgical Technologists, the American College of Surgeons and the American Hospital Association, 1361 Park Street, Clearwater, FL 33756, 727-210-2350.

Course Number	Course Title	Credits
Clinical Admissions Requirement(s):		
• 806-177	General Anatomy and Physiology	4
• 806-179	Advanced Anatomy and Physiology	4
Term 1		
103-159	**Computer Literacy - Microsoft Office	1
501-101	Medical Terminology	3
512-125	Introduction to Surgical Technology	4
512-126	Surgical Technology Fundamentals 1	4
512-127	Exploring Surgical Issues	2
890-101	**College 101	2
Total		16

Course Number	Course Title	Credits
Term 2		
512-128	Surgical Technology Fundamentals 2	4
512-129	Surgical Pharmacology	2
512-130	Surgical Skills Application	2
801-136	English Composition 1	3
806-197	Microbiology	4
Total		15
Term 3		
512-131	Surgical Interventions 1	4
512-132	Surgical Technology Clinical 1	3
512-133	Surgical Technology Clinical 2	3
801-196	Oral and Interpersonal Communication 3	3
809-198	Introduction to Psychology - OR -	3
809-199	Psychology of Human Relations	3
Total		16
Term 4		
512-135	Surgical Technology Clinical 3	3
512-136	Surgical Technology Clinical 4	3
512-142	Surgical Interventions II	4
809-166	Introduction to Ethics: Theory and Application	3
Total		13
Total Program Credits and Institutional Requirements		68

Exit Assessment

Clinical experiences, evaluations, and attendance at and completion of the scheduled CST exam are exit assessment graduation requirements for the program.

Institutional Requirements

** The credits for 103-159 Computer Literacy - Microsoft Office and 890-101 College 101 are Institutional Requirements for graduation.

Manufacturing

Advanced Industrial Maintenance Certificate

Certificate:

97-462-2

The Advanced Industrial Maintenance Certificate is intended to prepare students for entry into and advancement within the field of industrial maintenance. Graduates of this program will have the knowledge of the installation and repair of electrical and mechanical systems, motor controls and hydraulics systems.

Course Number	Course Title	Credits
Term 1		
606-116	Machine Elements	3
606-176	CAD 2-D, AutoCAD	3
	- OR -	
607-176	AutoCAD I	3
620-115	AC-DC Machinery and Motor Controls	4
Total		10

Basic Industrial Maintenance Certificate

Certificate:

97-462-1

The Basic Industrial Maintenance Certificate is intended to prepare students for entry into the field of industrial maintenance. Graduates of this certificate will have knowledge of industrial manufacturing, equipment maintenance, troubleshooting and repair. The coursework provides basic instruction and hands-on experiences to develop broad-based skills in areas such as electricity, hydraulics and pneumatics to perform in industrial settings.

Course Number	Course Title	Credits
Term 1		
620-101	DC Circuits	3
620-102	AC Circuits	3
620-105	Industrial Hydraulics and Pneumatics 1	2
620-135	Allen-Bradley PLCs and Ladder Logic	3
804-113	College Technical Mathematics 1A	3
Total		14

CNC Set-Up/Operator Certificate

Certificate:

97-444-1

In a manufacturing environment where machines do much of the labor, the human touch is needed to ensure consistent productivity and high quality of goods. Computer numerical

controlled (CNC) equipment operators handle the initial startup of a program, maintain quality control of the parts being machined and troubleshoot CNC machine tools when necessary.

Moraine Park's CNC Set-Up/Operator Certificate is designed for individuals who have limited or no manufacturing background in the setup and operation of CNC equipment. This certificate covers how to perform:

- Operation of machine tools
- Computer operations
- Entry-level CNC programming
- CNC setup
- CNC operation
- Industrial trades math
- Blueprint reading
- Use of precision measuring equipment

Course Number	Course Title	Credits
Term 1		
103-159	Computer Literacy - Microsoft Office	1
439-301	Introduction to Basic Machining	1
439-303	Basic Machining - Milling	2
439-305	Basic Machining - Drilling and Grinding	2
439-399	2D AutoCAD Mold and Die Print Reading	2
444-302	CNC Controls	2
444-333	Basics of Metrology	1
444-350	Basic Programming	3
804-360	Occupational Mathematics 1	2
Total		16

Term 2		
444-340	Beginning CAM - Mastercam	2
444-355	CNC Machining Center Programming	2
444-365	CNC Machining Center Operation	2
804-361	Occupational Mathematics 2	2
Total		8
Total Credits		24

CNC/Tool and Die Technologies

Technical Diploma:

32-444-2

The use of computer numerically controlled (CNC) machine tools is increasing in all sectors of the manufacturing industry. Students in Moraine Park's CNC/Tool and Die Technologies operate machine tools such as lathes, milling machines, grinders, drill presses and learn to read blueprints, perform entry-level CNC programming, operate two-dimensional computer-aided machining, set up and operate molding press, set up and operate punch press, and use

measuring equipment. Students prepare for a lean and green manufacturing environment.

The program focuses on programming and operation of coordinate measuring machine (CMM), vertical and horizontal machining centers, turning centers, an electrical discharge machine (EDM), tooling and workholding, and three-dimensional computer-aided machining. Students build and run mold and stamping dies, perform advanced milling, drilling and lathe work, precision surface grinding, and heat treating.

Graduates can program online (at the machine) or offline using a computer and a CAD/CAM system in a job-shop or a tool and die environment. Graduates analyze specs, lay out metal stock, construct and design dies and molds, and set up various machine tools. Graduates may earn credit toward an apprenticeship.

Representatives from business and industry have identified skills that are essential to success in manufacturing. Students will be expected to demonstrate the Critical Core Manufacturing Skills (CCMS) throughout all manufacturing classes. These skills include work cooperatively, work productively, listen effectively, demonstrate a positive attitude, maintain a safe work environment, demonstrate integrity, communicate clearly, follow directions, apply problem solving strategies, apply mathematical reasoning, think critically and adapt to change.

Course Number	Course Title	Credits
Term 1		
103-159	**Computer Literacy - Microsoft Office	1
439-301	Introduction to Basic Machining	1
439-303	Basic Machining - Milling	2
439-305	Basic Machining - Drilling and Grinding	2
439-399	2D AutoCAD Mold and Die Print Reading	2
444-302	CNC Controls	2
444-333	Basics of Metrology	1
444-350	Basic Programming	3
804-360	Occupational Mathematics 1	2
890-101	**College 101	2
Total		18

Term 2		
439-306	Basic Machining - Turning	2
444-310	Material Selection	1
444-311	Tooling and Workholding	2
444-340	Beginning CAM - Mastercam	2
444-342	Advanced CAM 2D	2
444-346	Design for 3D Machining	2

(continued)

CNC/Tool and Die Technologies (cont.)

Course Number	Course Title	Credits
444-355	CNC Machining Center Programming	2
444-365	CNC Machining Center Operation	2
804-361	Occupational Mathematics 2	2
Total		17

Term 3		
439-324	Pierce and Die Making	3
439-329	Compound Die Making	3
444-312	Product Engineering - Lean Manufacturing	1
444-343	Beginning CAM 3D	2
444-344	Advanced CAM 3D	2
444-375	Turning Center Operation	2
444-385	Turning Center Programming	2
804-362	Occupational Mathematics 3	2
Total		17

Term 4		
439-334	Single Cavity Mold Making	3
439-339	Multi Cavity Mold Making	3
444-313	Product Manufacturing	2
444-386	Advanced Machining Center	2
444-391	Coordinate Measuring Machine	3
444-394	Advanced Turning Center	2
801-310	Occupational Communication	2
Total		17

Total Program Credits and Institutional Requirements **69**

Upon successful completion of the following courses, students will earn an Introduction to CNC Operations Career Pathway Certificate

- 439-399 2D AutoCAD Mold and Die Print Reading
- 444-350 Basic Programming
- 444-365 CNC Machining Center Operation
- 804-360 Occupational Mathematics 1

Exit Assessment

Capstone projects are the exit assessment graduation requirement for the program.

Institutional Requirements

** The credits for 103-159 Computer Literacy - Microsoft Office and 890-101 College 101 are Institutional Requirements for graduation. Consequently, they are not part of the program credit requirements.

Computer Numerical Control Certificate

Certificate:
97-628-1

Manufacturers are always looking for employees skilled in Computer Numerical Control (CNC) setup, operations and programming.

Moraine Park's Computer Numerical Control Certificate is an ideal option for individuals who have experience in manufacturing and are looking for short-term training. The program provides the fundamental concepts of CNC as well as hands-on coursework with computer aided drafting (CAD) software and operation of CNC equipment.

Courses are directly transferable to Moraine Park's Process Engineering Technology associate of applied science degree if students wish to further their education in this field.

Course Number	Course Title	Credits
Term 1		
103-159	Computer Literacy - Microsoft Office	1
623-110	Technical Print Reading	2
623-162	Manufacturing Processes	3
623-190	Basic Metrology	3
628-122	Basic CNC Programming and Operation	3
628-132	Advanced CNC Programming and Operation	3
804-113	College Technical Mathematics 1A	3
Total		18

Die Design Certificate

Certificate:
97-617-1

Creativity and accuracy come together in the die design profession, where detail-oriented machinists develop die designs for production environments.

Moraine Park's Die Design Certificate focuses on metal stamping die design skills and is customized for individuals who have completed the Mechanical Design Technology associate of applied science degree, have previous die set-up or manufacturing experience, or have a background in machining. This includes journey workers in the tool and die making trade who are interested in moving into a design role in their field.

Representatives from business and industry have identified skills that are essential to success in manufacturing. Students will be expected to demonstrate the Critical Core Manufacturing Skills (CCMS) throughout all the manufacturing classes. These skills include: work cooperatively, work productively, listen effectively, demonstrate a positive attitude, maintain a safe work environment, demonstrate integrity, communicate clearly, follow directions, apply problem solving

strategies, apply mathematical reasoning, think critically and adapt to change. Students learn the concepts of lean manufacturing and green sustainable technologies.

Graduates are prepared to enter the industry as designers working on new die tooling projects. Employers are seeking individuals who have the strong skills and knowledge base provided by this certificate.

Course Number	Course Title	Credits
Term 1		
617-114	CAD 3-D, SolidWorks	3
617-115	Jig and Fixture Design	3
617-123	Advanced SolidWorks Assembly Modeling	3
617-147	Die Design 2	3
617-148	Die Design 3	3
617-149	Tool Design	4
Total		19

Fabrication Technologies

Associate of Applied Science Degree:
10-457-1

The Fabrication Technologies program enables students to acquire high-performance knowledge and skills needed to help boost the productivity, innovation, and competitiveness of local manufacturers. Students gain fabricating skills in automated cutting, forming and welding processes that prepare them for obtaining the Precision Sheet Metal Certification from the Fabricators and Manufacturers Association. The coursework also includes topics in computer aided design (CAD); computer numerical control, advanced manufacturing planning and production; lean manufacturing practices; and quality applications used in today's advanced manufacturing companies. Students will apply sustainable recycling methods throughout the program. The general studies courses in communications, economics and math prepare students for career advancement and provide transfer opportunities to four-year colleges and universities.

Representatives from business and industry have identified skills that are essential to success in manufacturing. Students will be expected to demonstrate the Critical Core Manufacturing Skills (CCMS) throughout all the manufacturing classes. These skills include: work cooperatively, work productively, listen effectively,

(continued)

Manufacturing (cont.)

Fabrication Technologies (cont.)

demonstrate a positive attitude, maintain a safe work environment, demonstrate integrity, communicate clearly, follow directions, apply problem solving strategies, apply mathematical reasoning, think critically and adapt to change.

Course Number	Course Title	Credits
Term 1		
103-159	**Computer Literacy - Microsoft Office	1
442-109	Welding for Fabricators	4
457-145	Fabrication Techniques	4
623-110	Technical Print Reading	2
804-113	College Technical Mathematics 1A	3
890-101	**College 101	2
Total		16
Term 2		
457-146	Advanced Fabrication Techniques	4
457-147	Metallurgy	2
457-148	Metal Cutting and Forming Processes	3
623-162	Manufacturing Processes	3
801-136	English Composition 1	3
804-114	College Technical Mathematics 1B	2
Total		17
Term 3		
457-110	Integrated Manufacturing Planning - Fabrication Technologies	2
617-114	CAD 3-D, SolidWorks	3
623-151	Lean Manufacturing	3
623-196	Geometric Dimensioning and Tolerancing	3
801-196	Oral and Interpersonal Communication	3
806-137	Comprehensive Technical Physics	4
Total		18
Term 4		
457-111	Integrated Manufacturing Production - Fabrication Technologies	2
628-122	Basic CNC Programming and Operation	3
809-166	Introduction to Ethics: Theory and Application	3
809-195	Economics	3
809-199	Psychology of Human Relations	3
Total		14
Total Program Credits and Institutional Requirements		65

Exit Assessment

Capstone projects are the exit assessment graduation requirement for the program.

Institutional Requirements

** The credits for 103-159 Computer Literacy - Microsoft Office and 890-101 College 101 are Institutional Requirements for graduation.

Metal Fabrication

Technical Diploma:

31-457-2

Moraine Park's two-semester Metal Fabrication technical diploma helps individuals develop fabrication skills that are used in today's industries. Through hands-on experience, students gain skills in fabricating that may lead to FMA Precision Sheet Metal certification. Students build metal products start to finish. Students read prints and learn automated cutting, forming and welding using lean practices. Students learn gas metal arc welding, shielded metal arc welding, gas tungsten arc welding and oxy-fuel cutting. The coursework also provides instruction in math, communications skills, lean manufacturing practices and quality applications used in today's advanced manufacturing companies.

Representatives from business and industry have identified skills that are essential to success in manufacturing. Students will be expected to demonstrate the Critical Core Manufacturing Skills (CCMS) throughout all manufacturing classes. These skills include: work cooperatively, work productively, listen effectively, demonstrate a positive attitude, maintain a safe work environment, demonstrate integrity, communicate clearly, follow directions, apply problem solving strategies, apply mathematical reasoning, think critically and adapt to change.

Course Number	Course Title	Credits
Term 1		
103-159	**Computer Literacy - Microsoft Office	1
442-309	Introduction to Welding Processes	4
442-331	Welding Print Reading	2
442-345	Metal Fabrication	4
804-360	Occupational Mathematics 1	2
890-101	**College 101	2
Total		15
Term 2		
457-146	Advanced Fabrication Techniques	4
457-147	Metallurgy	2
457-148	Metal Cutting and Forming Processes	3
623-162	Manufacturing Processes	3
801-310	Occupational Communication - OR -	2
801-136	English Composition 1	3
804-113	College Technical Mathematics 1A	3
Total		17
Total Program Credits and Institutional Requirements		32

Exit Assessment

A Capstone Project is the exit assessment graduation requirement for the program.

Institutional Requirements

** The credits for 103-159 Computer Literacy - Microsoft Office and 890-101 College 101 are Institutional Requirements for graduation.

Mold Design Certificate

Certificate:

97-617-2

Mold designers utilize their creativity to develop mold designs for production environments. They are typically detail oriented and have an interest in machines and mechanical processes.

This certificate is designed to develop the mold and die cast die design skills of an individual who has completed the Mechanical Design Technology associate of applied science degree, has previous mold set-up or manufacturing experience, or a background in a machining role. This would include journey person tool and die makers interested in moving into a design role in their field.

Representatives from business and industry have identified skills that are essential to success in manufacturing. Students will be expected to demonstrate the Critical Core Manufacturing Skills (CCMS) throughout all the manufacturing classes. These skills include: work cooperatively, work productively, listen effectively, demonstrate a positive attitude, maintain a safe work environment, demonstrate integrity, communicate clearly, follow directions, apply problem solving strategies, apply mathematical reasoning, think critically and adapt to change. Students are exposed to the concepts of lean manufacturing, as well as green sustainable technologies.

Graduates are prepared to immediately enter the industry as designers working on new mold tooling projects. Employers are looking for individuals who have the strong skills and knowledge base provided by this certificate.

Course Number	Course Title	Credits
Term 1		
617-114	CAD 3-D, SolidWorks	3
617-115	Jig and Fixture Design	3
617-123	Advanced SolidWorks Assembly Modeling	3
617-149	Tool Design	4
617-152	Mold Design 2	3
617-153	Mold Design 3	3
Total		19

Tool and Die Technologies Apprenticeship

Apprenticeship:

50-439-4

Work in the machine tool trades incorporates a high degree of precision in the creation of various parts, fixtures and products utilized in the industry. Once primarily a metalworking trade, tool and die machining is now included in the plastics and wood industries. Almost all products used today have been influenced by the tool and die industry. From design specification and drawings, skilled workers in the tool and die/machine trades utilize power machining tools, hand tools, and computer-driven machines to create desired products.

Course Number	Course Title	Credits
Term 1		
420-520	Mold Making	1
420-563	Machine Technology	1
420-580	2D CAD	1
804-582	Mathematics 1 (or)	1
804-584	Mathematics 3	
Term 2		
420-579	Introduction to Computer-Aided Manufacturing*	1
420-586	Die Making	1
422-505	Metallurgy*	1
804-583	Mathematics 2 (or)	1
804-585	Mathematics 4	
Term 3		
420-561	Jigs and Fixtures	.5
420-572	3D CAD*	1.5
421-555	Blueprint Reading	1
804-582	Mathematics 1 (or)	1
804-584	Mathematics 3	
Term 4		
420-565	CNC 54	1.5
420-571	Sinker/Wire EDM*	1.5
804-583	Mathematics 2 (or)	1
804-585	Mathematics 4	

Total Program Hours/Credits 16

Required state paid instruction hours = 576

Related Electives (Unpaid Related)

455-455	*Transition to Trainer, Your Role as a Journeyworker	0.2
531-465	*Heartsaver First Aid/CPR	0.2

*Required

Exit Assessment

Comprehensive tests are the exit assessment graduation requirement for the program.

Welding

Technical Diploma:

31-442-1

Individuals who have a knack for technology and enjoy working with their hands can make their mark -- and some sparks -- with a career in welding.

Moraine Park's Welding technical diploma program teaches individuals the welding and fabrication skills needed in today's industries. Through hands-on experience in a welding laboratory, students gain skills in all welding positions leading to welder certification.

Courses cover gas metal arc welding, shielded metal arc welding, gas tungsten arc welding, and oxy-fuel cutting. The coursework also provides instruction in print reading, math and communications skills, lean processes and sustainability practices.

Representatives from business and industry have identified skills that are essential to success in manufacturing. Students will be expected to demonstrate the Critical Core Manufacturing Skills (CCMS) throughout all manufacturing classes. These skills include: work cooperatively, work productively, listen effectively, demonstrate a positive attitude, maintain a safe work environment, demonstrate integrity, communicate clearly, follow directions, apply problem-solving strategies, apply mathematical reasoning, think critically and adapt to change.

Course Number	Course Title	Credits
Term 1		
103-159	**Computer Literacy - Microsoft Office	1
442-309	Introduction to Welding Processes	4
442-315	Gas Tungsten Arc Welding	4
442-331	Welding Print Reading	2
804-360	Occupational Mathematics 1	2
890-101	**College 101	2
Total		15

Term 2		
442-310	Shielded and Gas Metal Arc Welding (SMAW/GMAW)	4
442-316	Advanced Welding Techniques	4
442-345	Metal Fabrication	4
801-310	Occupational Communication	2
	- OR -	
801-196	Oral and Interpersonal Communication 3	3
Total		14

Total Program Credits and Institutional Requirements 29

Upon successful completion of the following courses students will earn an Introduction to Welding Career Pathway Certificate

- 442-309 Introduction to Welding Processes
- 442-331 Welding Print Reading
- 804-360 Occupational Mathematics 1

Exit Assessment

Completion of the TSA Rubrics is the exit assessment graduation requirement for the program.

Institutional Requirements

** The credits for 103-159 Computer Literacy - Microsoft Office and 890-101 College 101 are Institutional Requirements for graduation.



Course Descriptions

006-110 Agricultural Finance (Lakeshore Technical College Course) - 2 Crs. Introduces learner to major aspects of agribusiness financial management through extensive problem solving, financial analysis and financial planning. Students will describe and calculate sweet 16 ratios, business cash flows, inventory controls, budgeting and borrowing considerations of various types of agribusinesses. Software tools, such as QuickBooks and FINPACK, will be introduced.

006-112 Farm Business Management (Lakeshore Technical College Course) - 2 Crs. Provides learner with basic business management practices including the development of a business plan, establishment of short and long range goals, identification and implementation alternatives for reaching goals, and development of strategies to monitor progress. The importance of designing a business mission statement based on goals is emphasized. Software tools, such as QuickBooks, FINPACK, PCDART and DairyCOMP 305, will be incorporated.

006-114 Introduction to Animal Science (Lakeshore Technical College Course) - 2 Crs. Provides animal science fundamentals including animal health, animal environments, anatomy and physiology, genetics and reproduction, animal feedstuffs, and animal-related safety. Participants will experience animal concepts through the completion of hands-on activities.

006-116 Introduction to Soil Science (Lakeshore Technical College Course) - 2 Crs. Provides fundamental of soil's physical properties, chemical properties, biological properties, soil formation, classification, essential nutrient and soil survey. There will be emphasis on soil and water conservation practices that can be used to reduce soil erosion. Participants will experience soils concepts through lab and in the field activities.

006-120 Animal Health (Lakeshore Technical College Course) - 2 Crs. Examines the disease process and the immune response in animals, common diseases of domestic livestock, and related intervention practices with emphasis on maintaining healthy animals. (PREREQUISITE: 10006114 Intro to Animal Science)

006-122 Principles of Crop Production (Lakeshore Technical College Course) - 3 Crs.

Provides knowledge of crop and soil nutrient management, including use of both commercial fertilizers and manure. Course topics include purchase or lease options for land, agronomy consulting programs, tillage and conservation plans, soil nutrient plans, cropping plans, managing nutrient waste, crop harvest and storage and production records. (PREREQUISITE: 10006116 Intro to Soil Science)

006-124 Principles of Animal Breeding (Lakeshore Technical College Course) - 3 Crs. Applies genetic principles to livestock improvement including elementary population genetics, phenotypic and genotypic effects of selection, selection methods, and systems of mating. (PREREQUISITE: 10006114 Intro to Animal Science)

006-126 Agribusiness Economics (Lakeshore Technical College Course) - 3 Crs. Introduces agricultural economic dimensions and impacts, economic principles, calculation of economic returns, and evaluation of economic alternatives. Other topics include capital use, cost appraisal, risk considerations under a variety of economic conditions, farm credit sources, and creditor relationships. (PREREQUISITE: 10006110 Agricultural Finance)

006-130 Agricultural Marketing and Sales (Lakeshore Technical College Course) - 3 Crs. Provides the fundamental principles and methods of marketing agricultural products, marketing processes and agencies, pricing and merchandising of various products, and obtaining bargaining power. Other topics include futures market structure and function; futures commodity contract specifications; futures trading procedures; commodity futures trading strategies; and an introduction to commodity options. (PREREQUISITE: 10006110 Agribusiness Economics OR CONDITION: 310911 Dairy Herd Management)

006-132 Reproductive Physiology (Lakeshore Technical College Course) - 3 Crs. Provides advanced study of the reproductive processes of livestock including anatomy, endocrinology, gonadal function, fertility, and factors influencing reproductive performance. (COREQUISITE: 10006124 Principles of Animal Breeding)

006-134 Computer Apps and Animal Records (Lakeshore Technical College Course) - 3 Crs.

Introduces learner to records management, the setup and use of a computerized record-keeping software package, completion of a sample farm record problem utilizing a computerized record program, a review of various recordkeeping systems, as well as the selection and implementation of various computerized record programs. Software tools, such as QuickBooks, FINPACK, PCDART, and DairyCOMP 305, will be utilized. (PREREQUISITES: 10006110 Agricultural Finance and 10006124 Principles of Animal Breeding OR CONDITION: 310911 Dairy Herd Management)

006-136 Principles of Agronomy (Lakeshore Technical College Course) - 3 Crs. Examines agronomy principles for Midwest crops including basic components of plant growth, seed quality, plant parts, plant growth and development, plant classification, maturity systems, and seeding rates. (PREREQUISITE: 10006122 Principles of Crop Production)

006-140 Legal Aspects of Agribusiness (Lakeshore Technical College Course) - 3 Crs. Provides students with pertinent information of the legal liabilities and regulations for both state and federal of an agribusiness. Course content includes legal descriptions, contractual agreements, employee and consumer rights, insurance, debt collection, as well as bankruptcy and employment protection issues as regulated by DOL, OSHA and DILHR. (PREREQUISITE: 10006130 Agricultural Marketing and Sales OR CONDITION: 310911 Dairy Herd Management)

006-142 Advanced Dairy Management (Lakeshore Technical College Course) - 3 Crs. Advances the study of dairy herd management systems including milking and feeding arrangements, herd health, herd replacements, use of computer systems, personnel issues, and financial impact of management decisions. (PREREQUISITE: 10006134 Computer Apps and Animal Records OR CONDITION: 310911 Dairy Herd Management)

006-144 Advanced Nutrition Principles (Lakeshore Technical College Course) - 3 Crs. Analyzes the anatomy and physiology of the ruminant and mono-gastric digestive tract and factors affecting nutrient digestibility. Biochemical and physiological functions of nutrients in ruminant and mono-gastric animals will be compared. (PREREQUISITE:

(continued)

Course Descriptions

10006132 Reproductive Physiology OR
CONDITION: 310911 Dairy Herd Management)

006-146 Precision Ag Technologies (Lakeshore Technical College Course) - 3 Crs.

Provides the student the opportunity to experience studies in agricultural precision technologies including bio-technologies, application industries, livestock equipment, precision farming, financial resource management, plant protection, sustainable agriculture, environmental impacts of agriculture, agricultural workforce, and agricultural production. (COREQUISITES: 10006140 Legal Aspects of Agribusiness and 10006142 Advanced Dairy Management OR CONDITION: 310911 Dairy Herd Management)

101-102 Hospitality Accounting (Lakeshore Technical College Course) - 3 Crs.

Provides students with an understanding of the basic structure of accounting in the hospitality area and how to interpret and understand financial statements to learn some internal controls. Students will learn some bottom-up cost control and some budgeting. The student will recognize the differences in hotel/hospitality accounting and emphasis is placed on analysis and interpretation as well as recording, classifying, and summarizing processes. (Prerequisite: 10101158 Hospitality Cost Control)

101-112 Accounting 1 - 4 Crs. Emphasizes accounting requirements for sole-proprietorship service businesses. Covers the accounting cycle, from the original business transaction to closing the books at year-end, including the preparation and interpretation of financial statements. Cash and reconciliation of cash are also covered. (Prerequisites: Completion of or concurrent enrollment in 101-138 Data Management, Analysis and Reporting; 890-101 College 101)

101-114 Accounting 2 - 4 Crs. Concentrates on accounting for merchandising operations and the importance of inventory. Accounting information systems, current and long-term receivables, as well as fixed and intangible assets are also covered throughout the course. (Prerequisite: 101-112 Accounting 1)

101-115 Accounting 3 - 4 Crs. Focuses on financial reporting. Students will produce a complete set of annual reports that are in compliance with GAAP accompanied by a com-

prehensive analysis of the financial statements. (Prerequisite: 101-114 Accounting 2)

101-123 Income Tax Accounting - 3 Crs.

Provides the basic and intermediate information needed for preparing moderately difficult income tax returns for individual taxpayers. Includes training in the rudiments and applications of the Internal Revenue Code.

101-125 Cost Management - 3 Crs.

Emphasizes the need for accurate product costing for industrial and service organizations. Develops principles of job order costing, planning and budgeting. A thorough study of material, labor and indirect expenses is presented. The role cost accounting plays in planning and controlling operations is emphasized throughout the course. (Prerequisite: 101-114 Accounting 2)

101-126 Advanced Cost Management - 3 Crs.

Focuses on the basic methods of accumulating and reporting cost data. Develops principles of process costing. Special emphasis is placed on analyzing cost data to assist management in controlling costs and making decisions. (Prerequisite: 101-125 Cost Management)

101-128 Auditing - 3 Crs. Covers standards and procedures used by accountants in determining the fairness of a client's financial statements. Integrates accounting standards, accounting systems, internal control structures, evidence and financial reporting. Topics of discussion include types of audit reports, importance of ethics and internal control. (Prerequisite: 101-114 Accounting 2)

101-129 Applied Income Tax - 3 Crs. Students participate in the Volunteer Income Tax Assistance Program (VITA) sponsored by the Internal Revenue Service. Students prepare income tax returns (Forms 1040EZ, 1040A, 1040, Schedule A and Child Care) for the low-income and elderly populations as a practical work experience. Students learn to file tax returns electronically. (Prerequisite: 101-123 Income Tax Accounting)

101-130 QuickBooks - 3 Crs. Introduces QuickBooks accounting software in a hands-on environment. Students create and maintain vendor, customer, inventory and employee records; process transactions, perform banking

functions, maintain ledgers, generate journals, create reports and setup a new company within a computerized accounting environment. Basic computer knowledge is recommended.

101-134 Introduction to Finance - 3 Crs.

Introduces topics in financial planning for business, including purchasing fixed assets, investing, generating funds needed, and cash and debt management. (Prerequisite: Completion of or concurrent enrollment in 804-107 College Mathematics)

101-138 Data Management, Analysis and Reporting - 3 Crs.

Emphasizes key spreadsheet functionality and tools for application and decision making in a business environment. Basic and advanced topics such as formulas, sorting, building worksheets, charting, linking, look-ups, macros, pivot tables and what-if analysis will be covered. (Prerequisite: Completion of or concurrent enrollment in 103-159 Computer Literacy - Microsoft Office)

101-141 Payroll Accounting - 3 Crs. Provides experience in the calculation of payroll and payroll taxes and in the preparation of those records and reports that form the foundation of an efficient payroll system.

101-145 Integrated Accounting Applications - 3 Crs.

This is a capstone course in the Accounting program. Students will use software to integrate a variety of technological skills and accounting concepts. Students will also be prepared for obtaining and retaining an accounting position. (Prerequisite: 101-114 Accounting 2)

101-154 Microcomputer Accounting

Applications - 3 Crs. Provides hands-on experience with a microcomputer-based general accounting system. Students record transactions and generate journals, ledgers, financial statements and schedules. Emphasizes conversion of a manual accounting system to a microcomputer-based system. (Prerequisites: Completion of or concurrent enrollment in 101-114 Accounting 2; 101-141 Payroll Accounting)

101-155 Accounting for Professionals (Lakeshore Technical College Course) - 3 Crs.

Study of the information that can be interpreted from financial statements. Students analyze financial statements and apply managerial accounting concepts in an accelerated format.

(continued)

Course Descriptions

Prerequisite: 10804123 Math with Business Applications or Condition: 101101 Paralegal program requirements met)

101-158 Accounting Capstone - 3 Crs.

Provides students with an opportunity to apply competencies and skills acquired throughout the accounting program. Technical skill attainment is measured through demonstration of program outcomes in this capstone course.

101-158 Hotel/Hospitality Cost Controls (Lakeshore Technical College Course) - 2 Crs.

Applies concepts of controlling costs with emphasis on cost-to-sales relationship. Students calculate the costs of goods, selling price and relative percentages, forecast sales, conduct yield analysis and calculate break-even periods. (Prerequisite: Microsoft Excel or equivalent)

101-184 Principles of Accounting - 3 Crs.

Analyzes the fiscal components of a business. Students evaluate financial statements, accounts and annual reports relevant to the supervisor as a nonaccountant. Students evaluate and review several ratios, trends, business cycles and budgets. Students also discuss internal controls and business ethics and their effect on the firm.

102-110 Introduction to Business - 3 Crs.

Introduces the student to the world of business. Examines the areas of business such as human resources, operations management, financial management and marketing. Gives the students an overview of the types of business ventures available and the advantages and disadvantages of each. (Prerequisite: Completion of or concurrent enrollment in 890-101 College 101)

102-115 Business Relations - 3 Crs.

Introduces the importance of using business relation skills with stakeholders in the business environment. Various approaches for maintaining positive relationships between managers, employees, business partners, customers and stockholders are evaluated.

102-120 Principles of Management - 3 Crs.

Students learn about the four managerial functions of planning, organizing, controlling and leading in contemporary organizations. A series of self-assessment questionnaires provides insights into personal behaviors and helps students turn managerial theories into potential personal managerial practices. Students learn

how management processes apply to a global environment. (Prerequisite: Completion of or concurrent enrollment in 102-110 Introduction to Business)

102-124 Business Logistics - 3 Crs. Examines the design and management of products, processes, services and supply chains. Considers the acquisition, development, and utilization of resources that firms need to deliver the goods and services for clients.

102-182 Business Operations - 3 Crs. Assesses the role of business, its internal structure and its relationship to the external environment. Students analyze the supervisor's role in the functions of business planning, information systems, operations management, information technology, marketing, and how they interact and drive business activities.

103-159 Computer Literacy - Microsoft Office - 1 Cr. Develops basic computer skills in Windows, Internet communication, professional use of Social Media, word processing with Microsoft Word, spreadsheets with Microsoft Excel, and presentations with Microsoft PowerPoint. This course is a "hands-on" computer class and cultivates skills for college and work. Students must be comfortable using a computer. Students not familiar with a computer should enroll in Microsoft Windows. Keyboarding skills recommended.

103-160 Microsoft Word - 2 Crs. Introduces word processing applications, functions and features. Emphasizes creating, editing, saving and retrieving files; using wizards and templates; creating organized tables; and using grammar, formatting and spelling tools. Produces documents with charts generated from tables. Integrates information with other Microsoft applications. Windows-based Microsoft Word software is used. May be taken alone, as part of the Office Software Suite Certificate or to prepare for certification exams. It is recommended (but not required) that entry-level students complete Computer Literacy - Microsoft Office before enrolling in this course.

103-161 Advanced Microsoft Word - 2 Crs. Applies word processing features including tables, columns, merges, templates and integration of graphic elements. Emphasizes produc-

tion of correspondence, reports and proposals, labels, forms and tables. (Prerequisite: 103-160 Microsoft Word or dean consent)

103-164 Advanced Microsoft Integration - 2 Crs. Provides hands-on experience integrating files from programs in the Microsoft Office Software Suite. Students use advanced features in Word, Access, Excel and PowerPoint to link formulas, information and data. Students create documents, databases, worksheets and presentations and integrate the applications in a professional compilation. This course is typically taken as a final step in completing the Advanced Office Software Suite Certificate. (Prerequisites: 103-161 Advanced Microsoft Word; 103-183 Advanced Microsoft PowerPoint; 103-188 Advanced Microsoft Access; 103-190 Advanced Microsoft Excel)

103-165 Exploring the Internet With Client Software - 1 Cr. Provides an overview of the Internet and connectivity issues. Develops practical skills in accessing and using basic Internet tools such as browsers, e-mail clients, search tools and basic Internet utilities. Designed for the novice Internet user.

103-168 Microsoft Office Publisher - 2 Crs. Prepares students to design newsletters, brochures, flyers, stationery and more. Applies basics of design for layout and typography to publications. Applies Microsoft Publisher software package.

103-170 Beginning Photoshop - 2 Crs. Introduces Adobe Photoshop software. Uses software tutorial exercises to focus on learning Photoshop's user interface, tools, image creation, and editing techniques and procedures. Basic computer skills, Internet connection and current version of Adobe software required for online course.

103-172 QuarkXPress - 2 Crs. Introduces techniques and procedures for creating publications using QuarkXPress. Uses software tutorial exercises with user interface, fonts and typographic controls, integrating images, and working with color. Basic computer skills, Internet connection and current version of QuarkXPress software required for online course.

103-174 InDesign - 2 Crs. Introduces basic page layout document construction techniques.

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Course Descriptions

Uses software tutorial exercises to focus on learning Adobe InDesign's user interface and document creation procedures. Basic computer skills, Internet connection and current version of Adobe software required for online course.

103-180 Microsoft Excel - 2 Crs. Introduces spreadsheet applications, functions and features using data tables, solver and document review. Emphasizes creating, editing, saving and retrieving files, applying formulas and managing large workbooks, charts and amortization schedules. May be taken alone, as part of the Office Software Suite Certificate, or as the first step in preparation for the Microsoft Certification test. Students should have a basic understanding of a computer system. For entry-level students, Microsoft Windows or Computer Literacy - Microsoft Office is recommended before starting this course.

103-181 Microsoft Access - 2 Crs. Develops skills to manage relational databases by completing various activities using Microsoft Access in a hands-on format. Builds skills essential to unlocking the potential of a fully functional RDBMS (relational database management system). Access is a database program which keeps track of large amounts of data and organizes it in a useful manner. It provides a cost-effective method of leveraging key database functionality with easy-to-use graphical interface. Students must have a working knowledge of a computer system. Windows and Excel courses (or a working knowledge of both) are recommended before completing this course.

103-182 Microsoft PowerPoint - 2 Crs. Introduces Microsoft PowerPoint, Windows-based software that facilitates the design and creation of presentations in the form of text, clip art, animation, organizational charts and tables. Students produce interactive presentations with sound and other enhancements. May be taken alone, as part of the Office Software Suite Certificate or as the first step in preparation for the Microsoft Certification test on PowerPoint. Students should have a basic understanding of a computer system. For entry-level students, Microsoft Windows or Computer Literacy - Microsoft Office is recommended before starting this course.

103-183 Advanced Microsoft PowerPoint - 2 Crs. Develop skill in professional presenta-

tion and public speaking. Students organize a speaking event, apply customized features to slide shows, create custom designs, generate Web-based presentations, link and embed files from a variety of sources, prepare handouts and workbooks to complement presentations and utilize professional presentation technique. (Prerequisite: 103-182 Microsoft PowerPoint or dean consent)

103-188 Advanced Microsoft Access - 2 Crs. Introduces students to advanced features of Microsoft Access. Includes creating advanced queries; customizing advanced forms and reports; creating macros, Pivot Tables and Pivot Charts; integrating Access with other applications; introduction to database administration, database security, SQL statements, and VBA code. This course may be taken alone or as part of the Advanced Office Software Suite Certificate. (Prerequisite: 103-181 Microsoft Access or dean consent)

103-189 Microsoft Windows - 1 Cr. Provides basic overview of Windows. Focuses on concepts and terminology. Students develop skills in using a mouse, working with icons, using Windows Explorer, file/folder manipulation and print controls. May be taken alone, as part of the Office Software Suite Certificate, or as a step in preparation for Microsoft Certification. Students should have basic knowledge of a computer system. Support services and/or tutoring are available and recommended for very entry-level students.

103-190 Advanced Microsoft Excel - 2 Crs. Explores intermediate and advanced features of Microsoft Excel including multiple worksheet and workbook applications; importing data; using database features; creating macros and Pivot Tables; and Nesting functions. Provides hands-on experience in using Excel, building and designing advanced worksheet solutions. This course may be taken alone or as part of the Advanced Office Software Suite Certificate. (Prerequisite: 103-180 Microsoft Excel or dean consent)

103-193 Dreamweaver/Flash - 3 Crs. Design/develop a standards-compliant Web site with Adobe Dreamweaver software and publish to Web host. Design/develop a basic animation with Adobe Flash software for integration into a Web site. Experience with HTML and CSS is recommended.

103-195 Microsoft Project - 2 Crs. Participants control simple or complex projects by scheduling and tracking activities on the computer. Communicate schedule information, delegate tasks, get status updates and report project details so others can be informed. Keep track of project budget and all costs involved. Record project information with Microsoft Project software. Trial version of Microsoft Project software is available for downloading at the Microsoft web site. (Prerequisite: 103-159 Computer Literacy - Microsoft Office)

104-102 Marketing Principles - 3 Crs. Provides an integrated overview of the marketing concept and functions. Major topics include the marketing environment, distribution, pricing, product planning, promotion, market analysis and segmentation, marketing opportunities, and consumer and business-to-business buying behavior. (Prerequisite: Completion of or concurrent enrollment in 102-110 Introduction to Business)

104-104 Web Research and Analytics - 3 Crs. Teaches the fundamentals of how to use web analytic concepts, tools, and techniques to harness the power of an organization's website to create measurable business value, increase customer retention, and build customer loyalty. Students learn online research methods. Topics will include qualitative and quantitative research methodology, literature reviews and information literacy.

104-105 Selling - 3 Crs. Applies fundamental selling principles and allows practice in the basic skills needed to succeed in a sales career. Explores the sales process and demonstrates ability to approach, secure desire, handle resistance and close the sale. Examines buyer behavior, communication styles, ethics, international selling, partnership and value-added selling.

104-107 Merchandising Management - 3 Crs. Emphasizes strategic merchandise management. Students complete a situation analysis, select a target market, gather information, choose a store location, manage a retail business, manage merchandise, correct pricing and communicate with the customer. Includes development of buying, human resources management and retail operation skills.

Course Descriptions

104-109 Customer Service Techniques (Lakeshore Technical College Course) - 2 Crs. Assess participants' skills in customer relations, judgment and business development and provides training in connecting with customers, healing customer relationships, and dealing with customer needs.

104-110 Global Marketing - 3 Crs. Focuses on global issues that challenge today's international marketer. Expands on the strategic implications of marketing in different country cultures, as well as identifies marketing management techniques necessary to accommodate cultural differences. (Prerequisite: Completion of or concurrent enrollment in 104-102 Marketing Principles)

104-117 Digital Marketing, Public Relations and Social Media - 3 Crs. Gives students an in-depth understanding of digital marketing strategies and techniques and how to apply them to help businesses and organizations achieve their online sales and marketing objectives. Key areas of focus include e-mail marketing, social media, and online public relations.

104-120 Introduction to Digital Marketing - 3 Crs. Introduction to digital media and tools that are used for marketing and business communication purposes including current trends and channels. Focuses on building basic elements and concepts of design to include presentation, photo editing, page layout, video editing, and online techniques and tools leading to media integration in marketing.

104-125 Advertising and Social Media Campaign- 3 Crs. Focuses on creating and implementing advertising plans. Through a variety of assignments, participants are given the opportunity to create ad layouts, use desktop publishing, design an advertising campaign and create a video or audio advertisement. Through practical and theoretical approaches, students prepare and present an advertising and social media campaign for a specific business or organization. Students with a background in graphics may take with dean approval. Digital Marketing students are encouraged to take 104-117 Digital Marketing, Public Relations and Social Media concurrently with this course.

104-128 Leadership and Professionalism (Lakeshore Technical College Course) - 3 Crs. Prepares the student to accept a leadership role in their chosen occupation and provides opportunities to demonstrate business etiquette and professionalism in a variety of settings.

104-140 Integrated Marketing Communications - 3 Crs. Provides an integrated overview of marketing promotional tools and concepts for today's business environment. Students examine the marketing environment, tools of promotion, advertising tools, Integrated Marketing Communications (IMC), evaluation and measurement. Through practical and theoretical approaches, students prepare an IMC plan for a business including appropriate promotional strategies, tactics and cost estimates. (Prerequisite: 104-102 Marketing Principles)

104-160 Marketing Basics - 1 Cr. Provides an introduction to marketing concepts and functions. Focuses on the marketing principles of product, price, place (distribution) and promotion and how these principles impact every company or organization. You must have access to the Internet at home or on campus and access to an e-mail account.

104-170 Marketing Tourism and Hospitality (Lakeshore Technical College Course) - 3 Crs. Introduces the student to various aspects of tourism, the development and classification of hotel businesses, the hotel and rooms division operation, the duties and responsibilities of the key food and beverage executives, the history and development of the restaurant business, noncommercial food service segments, beverage management and liquor liability, recreation and leisure, the history of gaming entertainment, and the different types of meetings, conventions, and expositions.

104-185 Automotive Industry and Dealership Organization - 3 Crs. Provides an overview of the global nature of the automotive industry, operations of dealership departments, product lines and services, strategies for generating profits, and career opportunities within the industry. Gain practical understanding of laws, regulations and ethics related to vehicle sales, leasing and repair.

104-186 Customer Relationship Management - 3 Crs. Students adopt strategies for develop-

ing and maintaining a customer sales base with emphasis on prospecting, networking, and building and maintaining relationships. Students evaluate the importance of self-motivation, organizational skills and ethical behavior while developing their own personal brand of selling.

104-187 Automotive Sales Principles and Techniques - 3 Crs. Apply sales principles to the automotive industry and practice essential skills techniques needed to succeed in an automotive sales career. Topics include prospecting, understanding buyer behavior, industry products and services, finance options, and all steps of the sales process. Upon completion, apply for automotive sales licensing.

104-188 Automotive Dealership Internship - 3 Crs. Provides an opportunity to apply concepts, principles and skills learned in the workplace. Emphasis is placed on applying skills to job tasks, writing a cover letter and résumé, preparing for an interview and using professional etiquette.

105-120 Business Organization - 3 Crs. Introduces the student to the world of business. Examines the areas of business such as human resources, operations management, financial management and marketing. Gives the students an overview of the types of business ventures available and the advantages and disadvantages of each.

105-140 Business Decision Making - 3 Crs. Students will analyze case studies and real-life scenarios, make recommendations, and present those recommendations to simulated management teams using integrated software sets of Internet searching, word processing, spreadsheet, database, and presentation skills. Emphasizes decision making, analytical, and problem-solving skills and the presentation of recommendations in written or graphic forms. (Prerequisites: 101-184 Principles of Accounting; 104-102 Marketing Principles)

105-150 Business Practice Firm - 3 Crs. Provides students with an opportunity to apply concepts acquired throughout the program in a simulated or actual business setting. Students are required to apply technology, communication and problem-solving skills throughout the course. (Prerequisite: 101-115

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Accounting 3 or 104-125 Advertising and Social Media Campaign or 106-111 Business Communications or 116-154 Recruiting and Hiring)

105-151 International Business Practice Firm - 3 Crs. Provides students with an opportunity to apply concepts acquired throughout the program using an e-Commerce experience within a closed network of student Business Practice Firms around the world. Students are required to apply technology, communication and problem-solving skills throughout the course. (Prerequisite: 101-115 Accounting 3 or 104-125 Advertising and Social Media Campaign or 106-111 Business Communications or 116-154 Recruiting and Hiring)

105-152 Business Practicum - 3 Crs. Provides an opportunity to apply program skills learned in prior coursework in coordination with internship opportunities. Emphasizes seeking a job, applying skills to job tasks, adapting to company culture, modeling the core abilities, and demonstrating online collaboration and communication. Employment-ready work options are required upon course entry. (Prerequisite: 101-115 Accounting 3 or 104-125 Advertising and Social Media Campaign or 152-122 Migrating to Native Platforms or 106-111 Business Communications or 116-154 Recruiting and Hiring)

105-154 Career Internship, Business and Culinary Arts (90 Hours) - 2 Crs. Provides an opportunity to apply concepts, principles and skills learned in the workplace. Emphasis is placed on applying skills to job tasks, writing a cover letter and résumé, preparing for an interview and using professional etiquette.

105-155 Career Internship, Business and Culinary Arts (162 Hours) - 3 Crs. Provides an opportunity to apply concepts, principles and skills learned in the workplace. Emphasis is placed on applying skills to job tasks, writing a cover letter and résumé, preparing for an interview and using professional etiquette.

105-156 Career Internship-Business - 4 Crs. Provides an opportunity to apply concepts, principles, and skills learned in the workplace. Emphasizes applying skills to job tasks, writing a cover letter and résumé, preparing for an interview, and using professional etiquette.

105-158 Personal Brand - 2 Crs. Focuses on the importance of developing a strong brand identity for a business professional. Develops skills required to create a positive first impression when interacting with potential employers. Students will develop a professional résumé and cover letter, practice interview skills, and explore the role of social media in career development. (Prerequisite: 106-111 Business Communications)

105-160 Business Law - 3 Crs. Provides a general background to the elements and characteristics of business law. Emphasis is placed on how business law is structured and how it functions in our society. The main portion of the course is devoted to an understanding of contracts and contract structure.

106-101 Customer Service Essentials - 3 Crs. Provides a solid foundation in the areas of customer service and service excellence and applies techniques to retain customers and maintain loyalty in both a face-to-face environment and in remote settings via telephone and the Internet. Students should be able to prepare the assessments using Microsoft Word or Microsoft PowerPoint. (Prerequisite: Completion of or concurrent enrollment in 103-159 Computer Literacy - Microsoft Office)

106-103 Keyboarding - 1 Cr. Introduces students to the touch operation of keyboard characters through the use of computer software. Focuses on the development of speed and accuracy at the keyboard to a minimum speed of 20 words a minute. Document creation is not included.

106-111 Business Communications - 3 Crs. Analyze business situations, determine the specific communication strategies required, the audience, and the purpose as you prepare the most effective business communication format to address the situation. Applies concepts to team collaboration, various types of business correspondence, report writing and business presentations. Proofreading skills, word processing skills and keyboarding skills are strongly recommended. Online students are required to create an audio recording and should have access to a computer microphone or other audio recording device with the ability to submit the recording to the instructor. (Prerequisite: 801-136 English Composition 1)

106-113 Business Publications - 3 Crs. Prepares students to design newsletters, brochures, flyers, forms and more for business publication. Applies basics of design for layout and typography to publications. Applies Microsoft Publisher and Adobe Acrobat software packages. Explores options for both print and digital distribution. (Prerequisite: 103-159 Computer Literacy - Microsoft Office)

106-120 Document Formatting - 1 Cr. Introduces basic formatting of business letters, one- and two-page reports, tables and memorandums using Windows word processing software. Skill building is provided to enable students to develop an ending speed beyond 40 words a minute requirement. Software requires the use of a PC computer (not compatible with a Mac). (Prerequisite: "A" Grade in 106-103 Keyboarding or demonstrated 30 words a minute for 3 minutes with 3 or fewer errors using correct fingering. Enroll in Keyboarding Pretest to determine placement.)

106-121 Advanced Document Formatting - 1 Cr. Develops job-ready production skills while preparing business documents such as correspondence, tables, forms and reports from unarranged and rough draft copy. Includes hands-on, office-oriented applications. Skill building is provided to enable students to develop an ending speed beyond 45 words a minute requirement. Software requires the use of a PC computer (not compatible with a Mac). (Prerequisite: Completion of or concurrent enrollment in 106-120 Document Formatting)

106-135 Business Technology and Innovation - 3 Crs. Apply technology to business applications for communication and collaboration. Focus on content for blogs, podcasts, videos, ebooks, webinars, wikis, etc. Evaluate and troubleshoot technology options for web technologies and mobile apps. Online students should have a smartphone or tablet with mobile apps. (Prerequisite: Completion of or concurrent enrollment in 103-159 Computer Literacy - Microsoft Office)

106-142 Business Meeting and Event Planning - 3 Crs. Focuses on coordinating business meetings and planning successful business events. Students develop skills in meeting logistics including scheduling, preparing, organizing, managing and participating

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Course Descriptions

in business meetings. Students engage in all aspects of the event management process including goal setting and objectives, establishing event themes, planning event logistics, financial management, promotion and event evaluation. (Prerequisite: 106-113 Business Publications)

106-151 Specialized Insurance Claims - 3 Crs. Emphasizes insurance preparation of claims to Commercial, Medicare, Medicaid and Worker's Compensation. Applies ICD, CPT and HCPCS coding resources to complete CMS 1500 and CMS 1450 insurance claims. (Prerequisite: Completion of or concurrent enrollment in 509-107 Medical Office Insurance and Finance)

106-152 Electronic Patient Billing - 3 Crs. Emphasizes the use of Medisoft billing software. Includes creating and editing patient databases, making entries to accounts, preparing billing statements and insurance forms, and generating financial reports. Differentiates between the manual and static coding process; students perform static coding. Emphasizes collection practices for overdue accounts and establishes a format for collection policies in a medical office. (Prerequisite: Completion of or concurrent enrollment in 509-107 Medical Office Insurance and Finance)

106-154 Medical Office Administration - 4 Crs. Simulates handling patients and employees, applying customer service skills, and the use of computers in a medical/clinical setting. Hands-on experience in scheduling appointments, work in electronic medical records, establishing a fee schedule, and practice management. Utilizes Microsoft Word, Medisoft billing software, SpringCharts electronic medical record software, telephone systems, internet, fax and e-mail. (Prerequisite: 509-101 Medical Assistant Administrative Procedures)

106-160 Medical Office Practicum - 2 Crs. Provides students with on-the-job medical office experience in a medical facility. Application of ethical standards in confidentiality is required. Expands student's knowledge of the requirements (both employment skills and adaptive skills) necessary for employment in the medical profession through creation of a career portfolio. Students must be eligible for graduation the semester they enroll in the practicum. (Prerequisites: Completion of or

concurrent enrollment in 106-154 Medical Office Administration. Healthcare Provider CPR and First Aid; health requirements and Criminal Background Check must be completed prior to Medical Office Practicum)

106-163 Database and Spreadsheet Essentials - 3 Crs. Prepares students to design their own databases and spreadsheets from the ground up. Develops skills in creating formulas and functions to solve business problems. Develops skills in database tables, relationships and queries. Develops formatting skills for spreadsheets and charts.

106-164 Business Applications for Microsoft Office - 3 Crs. Apply various Microsoft Office business applications using numerous features in Excel, Access, and PowerPoint. Applications include integration concepts such as importing/exporting, linking/embedding, multimedia concepts, and templates. (Prerequisites: 103-159 Computer Literacy - Microsoft Office; 106-163 Database and Spreadsheet Essentials)

106-167 Legal Processes and Systems - 3 Crs. Explores the history, components and processes of today's laws and court systems. Specific areas of the law that are addressed include civil and criminal litigation, family law, real estate, small claims, estate planning and administration. Students view actual court sessions.

106-169 Law Office Applications - 3 Crs. Emphasizes the application of skills required in the law office. Develops skill in legal billing, specialized legal software, banking and filing procedures, tax matters, processing insurance and investments. Students prepare a legal portfolio. (Prerequisites: Completion of or concurrent enrollment in 106-167 Legal Processes and Systems; 106-175 Legal Documents 1; 106-176 Legal Documents 2; 106-178 Legal Office Professional)

106-175 Legal Documents Production 1 - 2 Crs. Focuses on the preparation of litigation documents for court filing in civil, criminal and small claims cases. Students apply legal concepts to actual court and non-court documents, utilize legal terminology in document preparation and transcribe legal dictation in court and non-court format. (Prerequisite: 106-120 Document Formatting or Keyboarding Pretest - 30 wpm with 3 or fewer errors)

106-176 Legal Documents Production 2 - 2 Crs. Focuses on the preparation of legal documents for real estate, contracts, family law, estate planning and administration (probate and nonprobate), corporate law, bankruptcy and foreclosures. Emphasis is on speed and accuracy in applying legal terminology in document preparation. (Prerequisite: 106-175 Legal Documents Production 1)

106-178 Legal Office Professional - 3 Crs. Introduces the student to the role of the legal professional. Develops professionalism, receptionist and client conferencing skills, telephone techniques in a legal setting, law office ethics, confidentiality, and legal office accounting skills.

106-180 Business Protocol - 3 Crs. Provides opportunities to apply business etiquette to your professional life. Enhances your professional image through appearance, work habits, manners and communications. Explores handling of ethical dilemmas and workplace relationships. Recognizes the diversity of other cultures in business relationships. Provides opportunity to plan for your career success and job search. Recommended to be taken near the end of your program, in one of the last semesters.

106-181 Document Standards and Expectations - 3 Crs. Prepares students to edit business documents generated from voice-recorded materials and text files, applying proofreading techniques to produce distributed copy. Computer-editing tools and reference resources are used to produce error-free copy. (Prerequisites: Completion of or concurrent enrollment in 103-159 Computer Literacy - Microsoft Office; 106-120 Document Formatting)

106-182 Document Management - 3 Crs. Applies word processing features including tables, mail merge, templates, forms, and macros within business documents to enhance workflow. Integrate business proofing and editing skills. Incorporate principles and practices of effective document management through simulated practice. (Prerequisite: Completion of or concurrent enrollment in 103-159 Computer Literacy - Microsoft Office)

109-105 Culinary Practicum 1 (Lakeshore Technical College Course) - 2 Crs.

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Incorporates fundamental theories and techniques learned during the first semester in a restaurant setting. Safety, sanitation and cost control concepts are applied. Activities may include day, evening, and weekend requirements. (CONDITION: 103161 or 103161Z Culinary Arts or 313161 or 313161Z Culinary Technical Diploma program requirements met and COREQUISITES: 10316102 Skill Development and 10316104 Intro to Baking and Pastry)

109-108 Dining Room and Beverage Service (Lakeshore Technical College Course) - 2 Crs.

Introduces learners to dining room and beverage service including wine, spirits, beer, mixology, and non-alcoholic drinks. Helps learners refine their customer service and meal delivery skills through the study and application of proper, customer-oriented dining room service environments including etiquette, dining room safety, set-up, American and French table service, and menu knowledge skills. Concepts include histories of table service, psychology of the customer, and service sequence.

109-110 Front Office Procedures and Management (Lakeshore Technical College Course) - 2 Crs. Emphasizes front office techniques and management principles for the organization and operation of the lodging facility. The human and public relations responsibilities of the front office as well as routine procedures are an integral part of the course.

109-111 Housekeeping Management (Lakeshore Technical College Course) - 2 Crs. Investigates the functions of the housekeeping department and the role of managers in operating the department. Students are introduced to requirements for guest satisfaction including room and facility appeal, order, and cleanliness.

109-112 Sanitation for Food Service (Lakeshore Technical College Course) - 1 Cr. Develops skills to follow sanitation and hygiene provisions in state codes. The NRA certification test is included.

109-113 Food and Beverage Operations (Lakeshore Technical College Course) - 2 Crs. Introduces and applies principles of menu planning, food preparation, laws and sale of alcoholic beverages. Emphasis is on operation of a professional food and beverage facility.

109-115 Hospitality Law (Lakeshore Technical College Course) - 3 Crs. Will apply legal practices in hospitality environments including analysis of the impact of U.S. employment laws, the global economy, vendor/supplier contract negotiations, reacting to legal charges, documenting the hiring/firing process, dealing with harassment issues, privacy issues, and summarizing legal issues facing hospitality/culinary employees. (Corequisite: 10109121 Introduction to Hotel/Hospitality Management or 10325101 Golf Operation Management)

109-121 Introduction to Hotel/Hospitality Management (Lakeshore Technical College Course) - 3 Crs. Traces the development of the hotel/motel industry from early inns to modern high-rise and commercial hotels and highway motels. The organization of the hotel, including food and beverage operations, is discussed.

109-122 Hospitality Field Study/Experience (Lakeshore Technical College Course) - 2 Crs. Explores emerging trends in international, national, and local hospitality management and innovative solutions are evaluated. Students will develop an academic portfolio which reflects upon the program outcomes, core abilities, career goal, educational goal, and course summary of learning. Students will meet with their program instructor to explain their portfolio and complete the TSA documentation. (Corequisite: 10109115 Hospitality Law and Prerequisite: 10109110 Front Office Procedures)

109-128 Hospitality Personal Branding (Lakeshore Technical College Course) - 2 Crs. Focuses on the importance of developing a strong brand identity for yourself as a professional. As a prospective employee, you are constantly selling yourself from how you talk, walk, dress, your facial expressions, and your body language; people are always forming impressions of you. In this course, you will develop a professional résumé, cover letter, practice interview skills, and learn the role of social media in career development.

109-144 Hospitality Internship (Lakeshore Technical College Course) - 3 Crs. Affords students on-the-job experience while providing instructor and workplace supervision. Students are responsible for seeking and obtaining the internship position with instructor approval. Course requirements include maintaining a

log of work activities, identifying and receiving approval from the job supervisor and instructor, and completing a work-related project. Students meet periodically at LTC. (Condition: Verification of eligibility by the Instructor)

110-101 Introduction to Paralegalism and Legal Ethics (Lakeshore Technical College Course) - 3 Crs. Introduces the student to the paralegal profession, including civil, criminal, and administrative procedure; state and federal judicial systems; legal research; case briefing; ethical rules that apply to paralegals; law office software; and substantive civil law.

110-102 Civil Litigation I (Lakeshore Technical College Course) - 3 Crs. Provides the student with the skills to evaluate causes of action and defenses; conduct an initial client interview; perform an initial investigation; draft a summons and complaint, answer, counterclaim, cross complaint, motions and supporting documents, select appropriate discovery devices; draft interrogatories and responses; prepare for depositions; draft a Notice of deposition and Subpoenas; analyze fact patterns; and evaluate evidentiary objections. (Prerequisite: 10110101 Introduction to Paralegalism and Legal Ethics. Condition: 101101 Paralegal program requirements met)

110-103 Civil Litigation 2 (Lakeshore Technical College Course) - 3 Crs. Provides the student with the skill to evaluate and summarize depositions; evaluate evidentiary challenges; prepare a witness list; draft settlement documents; locate expert witnesses; prepare witnesses; prepare for presentation of evidence at trial; prepare a trial notebook; draft a Bill of Costs; prepare post trial motions; evaluate and research appellate issues. (Prerequisite: 10110102 Civil Litigation. Condition: 101101 Paralegal program requirements met)

110-104 Legal Research (Lakeshore Technical College Course) - 3 Crs. Provides the student with the skills to differentiate between primary or secondary authority, locate statutes and constitutional provisions, locate case law, locate administrative regulations, locate secondary authority, use correct citation form, verify and update legal authority, formulate legal issues, use effective research strategies, evaluate solutions to legal problems,

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and use computer-assisted and internet legal research strategies. Some classes will be held off campus in a law library. (Prerequisite: 10110101 Introduction to Paralegalism and Legal Ethics. Condition: 101101 Paralegal program requirements met)

110-105 Legal Writing (Lakeshore Technical College Course) - 3 Crs. Provides the student with the skills to draft legal correspondence, operative legal documents, case briefs, and legal and office memoranda; analyze and synthesize legal authority; use correct citation form; draft a civil pleading, affidavit, trial brief, and appellate brief; and apply rules of civil procedure. (Prerequisites: 10110104 Legal Research and 10801195 Written Communication and 10103181 Word 2013-Level 1. Condition: 101101 Paralegal program requirements met)

110-106 Family Law (Lakeshore Technical College Course) - 3 Crs. Provides the student with the skills to conduct an initial client interview for a family law matter, including divorce and domestic violence; draft initial pleadings for divorce, financial family law documents, divorce discovery documents, and concluding documents in divorces; assess the need for post-divorce modification and enforcement; and outline factors involving child custody and support. (Prerequisite: 10110101 Introduction to Paralegalism and Legal Ethics. Condition: 101101 Paralegal program requirements met)

110-107 Legal Aspects of Business Organizations (Lakeshore Technical College Course) - 3 Crs. Provides students with the skills to analyze legal aspects of the formation, operation, and dissolution of sole proprietorships, partnerships, limited liability entities, and corporations; draft documents related to various business entities such as Certificates of Limited Partnership; Articles of Organization and Incorporation, Name Reservation Applications, Organizational Resolutions, Form SS-4 and 2553, Stock Certificates, Resolutions and Minutes, and Amendments and Articles of Dissolution. (Prerequisite: 10110101 Introduction to Paralegalism and Legal Ethics. Condition: 101101 Paralegal program requirements met)

110-114 Administration of Estates (Lakeshore Technical College Course) - 3 Crs. Provides the student with the skills to assist

attorneys to administer estates, differentiate between probate and nonprobate property, contrast various forms of marital property, gather appropriate factual and financial information, select and draft appropriate forms to open an estate, prepare an inventory, draft a final accounting and documents to close an estate, draft tax documents, prepare powers of attorney and simple wills, and assist in the valid execution of estate planning documents. (Prerequisite: 10110101 Introduction to Paralegalism and Legal Ethics. Condition: 101101 Paralegal program requirements met)

110-130 Real Estate Law - Paralegal (Lakeshore Technical College Course) - 3 Crs. Provides the student with the skills to analyze types of real estate ownership; analyze the effect of the Marital Property Act on real estate; determine the requirements of listing contracts; draft legal descriptions; draft an offer to purchase; negotiate a real property sale; prepare financing documents; compare abstracting and title insurance; record deeds; compare land contracts; summarize foreclosure procedure; draft closing documents; compare landlord and tenant rights and responsibilities. (Corequisite: 10110101 Introduction to Paralegalism and Legal Ethics. Condition: 101101 Paralegal program requirements met)

110-131 Personal Branding – Paralegal (Lakeshore Technical College Course) - 2 Crs. Prepares the student to develop a career plan, write a résumé, create a cover letter, prepare for an interview, search for work on the internet, adapt a résumé for an electronic scan, and post a résumé and cover letter on the internet.

110-143 Paralegal Internship (Lakeshore Technical College Course) - 2 Crs. Enhances the participant's ability to perform the duties of a paralegal; to seek and obtain employment as a paralegal; apply paralegal skills in an actual workplace setting; to perform legal research and writing; and understand law office systems and administration. Students are responsible for seeking and obtaining an internship position for a minimum of 140 hours in a legal environment under the supervision of an attorney or other qualified professional, completing an internship agreement and learning contract, maintaining a work log and obtaining approval from the internship instructor. (Corequisite: 10110105 Legal Writing. Prerequisite: 10110131 Personal Branding-Paralegal)

110-160 Employment Law (Lakeshore Technical College Course) - 3 Crs. Provides the student with the skills to analyze state and federal law governing employment relationships, job discrimination, sexual harassment, workplace privacy, labor standards and human resource management. (Prerequisite: 10110101 Introduction to Paralegalism and Legal Ethics. Condition: 101101 Paralegal program requirements met)

110-168 Criminal Law - Paralegal (Lakeshore Technical College Course) - 3 Crs. Provides the student with the skills to analyze state and federal criminal procedures, determine if a search and arrest is in accordance with the Fourth Amendment, analyze the Miranda rules, draft a criminal summons and complaint, determine possible defenses for a defendant, draft motions, analyze a criminal complaint and jury instructions for required elements, create demonstrative evidence, create a trial notebook, conduct a client interview, and contrast prosecution and defense roles. (Prerequisite: 10110101 Introduction to Paralegalism and Legal Ethics. Condition: 101101 Paralegal program requirements met)

110-179 Portfolio Assessment – Paralegal (Lakeshore Technical College Course) - 1 Cr. Assesses what the student has learned throughout the program and reviews project samples of their achievements and analyzes program outcomes and core abilities. (Prerequisite: 10110131 Personal Branding-Paralegal)

111-101 Introduction to Graphic Communication - 3 Crs. Offers an overview of the basic objectives, principles, and methods used in the discipline of graphic design. Students are introduced to the basic concepts of visual communication through projects that balance creative development and design tools. Assignments range from individual to collaborative, and are designed to introduce creative thinking, critical discussion and personal decision-making in relation to the choice of graphic communications as major. (Prerequisite: Completion of or concurrent enrollment in 890-101 College 101)

116-105 Recruitment and Retention of Employees (Lakeshore Technical College Course) - 3 Crs. Applies skills and tools necessary to hire and retain qualified employees.

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Legal issues, testing, screening, interviewing, selecting and negotiating techniques will be demonstrated and assessed for each student.

116-130 Introduction to Human Resources - 3 Crs. Introduces issues in human resource management in a changing environment and suggests possible ways of leveraging and managing human resources. Topics covered include the nature of employee management including recruiting, hiring, training and developing human resources, equal employment opportunity laws, compensation, and performance appraisal. Current trends and innovations related to human resource management are also integrated throughout the course. (Prerequisite: Completion of or concurrent enrollment in 102-110 Introduction to Business)

116-151 Employee Relations - 3 Crs. Enhances the ability to understand and develop employee-focused programs, policies and procedures such as formal and informal communications, employee recognition and conflict resolution. Valuing diversity in the workforce is emphasized.

116-152 Orientation and Training - 3 Crs. Evaluates training and development skills through practice and skill-building activities. Students develop training strategies using a variety of delivery formats. Needs and cost analysis, competency and performance standards, and facilitation skills are incorporated.

116-154 Recruiting and Hiring - 3 Crs. Focuses on recruiting, selection and hiring practices. Students examine what today's workforce expects, how to efficiently use the recruitment budget and all steps within the hiring process.

116-156 Compensation and Benefits - 3 Crs. Focuses on the various components that make up a total employee compensation package. Base pay, merit pay and variable pay programs are covered. Students examine benefits including governmental regulation, group welfare plans, pension plans and flexible benefit plans. Students explore the impact of current trends.

140-190 International Study - 3 Crs. Emphasizes the importance of integrating international awareness in the student's program. Students explore the facets of the international environment examining ethical, cultural, social and organizational similarities and differences.

140-191 International Study - 2 Crs. Emphasizes the personal and business skills necessary to succeed in a global economy by focusing on a selected culture. Students explore the business practices, customs, norms/taboo and communication styles for a selected culture.

140-192 International Study - 1 Cr. Emphasizes the personal skills necessary to succeed in a global economy. Students explore the similarities and differences in cultures and communication styles and develop a plan to minimize personal prejudices and stereotypes.

145-185 Entrepreneurship - 3 Crs. Explores the components of small business ownership by examining available resources, identifying trends and opportunities, discussing the parts of a business plan, and assessing own readiness to pursue a small business opportunity.

145-189 Writing a Small Business Plan - 3 Crs. Focuses on the business plan as a necessary component to beginning and/or growing a small business. Students address facets of the business plan, from observing various types of plans to realizing readiness to begin and/or expand one. Preparation of a business plan, as well as presentation of the plan, are required.

150-101 Network+ - 3 Crs. Investigates and applies concepts, terminology, software, hardware and theory expected of computer network support technicians. Focuses on small to medium networks media and its physical and logical arrangement, protocols and standards, network implementation and support. Helps students prepare for the Microsoft MTA Networking 98-366 certification exam.

150-102 Microsoft Workstations - 3 Crs. Examines user interface, installation, administration and troubleshooting of current Microsoft workstation operating systems. Emphasizes operating systems from the viewpoint of the support person. (Prerequisites: Completion of or concurrent enrollment in 150-101 Network+; 890-101 College 101)

150-103 Network Cabling - 2 Crs. Students apply concepts that are critical to the design of computer networks. Examines inappropriate installation procedures causing degradation in cable performance. Includes applications in the termination and testing of copper cabling. (Prerequisite: 150-122 Virtualization)

150-110 Cloud Computing - 3 Crs. Administration and configuration of open cloud platforms. Students learn to deploy and manage applications across a global network of managed datacenters. Focus will be on Software as a Service (SaaS). (Prerequisite: 150-122 Virtualization)

150-115 Emerging Innovations in Technology - 3 Crs. Provides opportunities to explore emerging technologies. Emphasizes identifying, researching, and presenting current technological topics and explores important issues currently affecting the field of organizational computer systems and related emerging information technologies. (Prerequisite: 150-101 Network +)

150-120 Microsoft Servers - 3 Crs. Covers the user interface, installation, administration and troubleshooting of Microsoft server operating systems from the viewpoint of the support person. Students compare and contrast among Microsoft server network operating systems. (Prerequisites: 150-102 Microsoft Workstations)

150-122 Virtualization - 3 Crs. This hands-on training course explores the installation, configuration, and management of the components of VMware®, Microsoft, and Oracle software. Students will learn to deploy virtual machines, perform live migrations, and implement full virtualization hypervisors. (Prerequisites: Completion of or concurrent enrollment in 150-120 Microsoft Servers; 103-159 Computer Literacy - Microsoft Office)

150-130 IT Administration - 3 Crs. Presents overview of management, network analysis, help desk, and upgrade aspects of IT administration. Students research security standards for Internet presence, mainframe, networks, firewall configuration and design, and they conduct security reviews for compliance. Using a fictitious company, students budget, staff and establish policies from an administration viewpoint. This class is the exit assessment for IT-Network Support Specialist. (Prerequisites: 150-101 Network+; 150-141 Computer Network Installation)

150-141 Computer Network Installation - 3 Crs. Students design a structured cabling system for a computer network, install peer-to-peer computer networks, implement client-server computer networks, and provide

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wireless connectivity for a computer network. (Prerequisites: 150-101 Network+; 150-120 Microsoft Servers)

150-143 Linux Network Administration - 2 Crs. Examines specifically how to perform network administration tasks for a Linux network operating system. Students have extensive hands-on practice carrying out administration tasks on a Linux server network. (Prerequisites: 150-102 Microsoft Workstations; 150-120 Microsoft Servers)

150-191 Principles of Information Security - 3 Crs. Develops security policies and strategies after exploring the concept of trustworthy computing and the important role that security plays with respect to people, processes and technologies in an organization. Course is structured around three phases of network security: planning, building and managing network security policies.

150-192 Network Security Fundamentals - 3 Crs. Provides a detailed overview of the fundamentals of network security. Covers security topology, intrusion detection, firewalls, routers and their configuration, access lists, authentication and encryption, in addition to reviewing the different methods of attacks such as viruses, Trojan horses and worms. Also covers wireless technology security. The structure of the course assumes students have a solid understanding of LAN/WAN fundamentals. (Prerequisite: 150-191 Principles of Information Security)

150-193 Network Attacks and Firewalls - 3 Crs. Introduces strategies to detect and prevent common computer attacks and vulnerabilities using security technologies. Students explore techniques on how to stay current on vulnerabilities and other security topics. (Prerequisite: 150-192 Network Security Fundamentals)

150-194 Network Defense and Countermeasures - 3 Crs. Examines methods to use to secure a network perimeter. Students examine and use tools to secure computers running versions of Windows. Includes Microsoft Baseline Security Analyzer (MBSA), Solarwinds Remote Management System and other RSA standard security tools. Network encryption and authentication tools are examined. Upon completion of 150-191 thru 150-194, students prepare for the Microsoft MTA Security 98-367 certification

exam. (Prerequisite: 150-193 Network Attacks and Firewalls)

152-105 Relational Databases - 3 Crs. Explore relational database concepts and the use of Structure Query Language while working within a Database Management System (DBMS). Design, build and query a relational database and its tables. Manipulate a DBMS using concepts such as stored procedures and triggers. (Prerequisite: Completion of or concurrent enrollment in 890-101 College 101)

152-106 Web Site Design - 3 Crs. Design, develop and publish a Web site using Microsoft Expression Web software with an introduction to the code being produced by the software. Enhance Web sites using advanced features of MS Expressions Web including DWT templates, master data pages, CSS navigation, alternative media techniques, ASP.NET data connectivity, and validation techniques. Experience converting a Web to mobile device delivery recommended.

152-107 Graphics for the Web - 2 Crs. Optimize graphics and photos so they download quickly in a Web browser. Gain skills in image slicing and learn practical skills for designing layouts, backgrounds, navigation bars and buttons in Photoshop.

152-109 Search Engine Optimization - 3 Crs. Gives students an in-depth understanding of search engine optimization and search engine marketing strategies and techniques. It will provide students with the knowledge necessary to make web sites search engine friendly, optimize pages with target keywords, monitor search engine ranking and maintain search engine placement in the most popular engines and directories worldwide.

152-112 Web Coding Technologies - 3 Crs. Learn how to write XHTML and HTML, document structure, block and inline-level tags, float images, control white space, phrase and font markup, and tables. Build a complete working Web site. Gain a working knowledge of CSS. Learn about CSS fundamentals, including the benefits and limitations of the language. Format text, images and backgrounds; position elements on the page; apply styles, both inline and via an external style sheet. CSS best practices and browser support issues are also addressed.

Experience converting a Web to mobile device delivery recommended. Learn about the basic rules of XML, XML syntax, and more. Integrate XML into your site; create style sheets and Schema Definitions.

152-113 Web Programming Technologies- 3 Crs. Develops skills in using programming concepts by employing the JavaScript language to create Web-based applications and to add animation and interactivity to a Web site. Addresses utilizing preexisting scripting sources, modifying script from other sources and creating original scripting features. Utilize skills gained to develop a content based mobile application. (Prerequisites: 152-112 Web Coding Technologies. Completion of or concurrent enrollment in 103-159 Computer Literacy - Microsoft Office)

152-114 CSS Technologies - 3 Crs. Explores new features of CSS3. Students will create selective styling, control font properties, control text properties, manipulate color and background properties and work with list and table properties. Also covers CSS box properties, style sheets, responsive design, mobile web app styling, page layout and CSS transformation.

152-115 Design/Implementation/ Maintenance Workflow - 3 Crs. Perform the tasks involved in the process and documentation of strategic planning, implementing and maintaining a Web site in a team-based environment. Addresses specific tasks in the Web site design, planning and development process such as project scope and proposals, budgeting, scheduling, specifications, obtaining domain names, registering Web sites, end-user analysis, statistics, testing and troubleshooting, training, and presentation topics. (Prerequisites: 152-106 Web Site Design or 152-112 Web Coding Technologies)

152-116 Content Management Systems - 3 Crs. Builds skills in employing content management systems (CMS) to create dynamically updated websites. Explores the fundamentals of planning dynamic websites, CMS database management, and developing CSS-controlled site templates. Examines procedures for performing backups and restores on websites, use of third party products and hosting options. (Prerequisite: 152-118 Database Driven Websites)

152-117 Emerging Web Technologies and Trends - 1 Cr. Evaluates new technologies, emerging trends, new standards and specifications in the Web development field by performing application of these in the Web site design/development process. Investigation and use of resources and tools for maintaining up-to-date skills in the field will be done. Self-directed learning skills will be developed. (Prerequisite: 152-113 Web Programming Technologies)

152-118 Database-Driven Web Sites - 3 Crs. Build a dynamic, data-driven, interactive Web site. Using PHP 5.2.x and MySQL 5.0.x, learn the entire process of building a content management system. Learn the basics of the PHP language (variables, arrays, loops, functions, etc.) and work up to building dynamic Web pages with a MySQL back end. Cover blueprint applications; structure and interact with databases; build, validate and process forms; and regulate user access with passwords. Cover best practices and demonstrate refactoring techniques for improving existing code. (Prerequisite: 152-106 Web Site Design or 152-112 Web Coding Technologies)

152-119 Web Designer/Developer Concepts - 2 Crs. Provides a conceptual overview of PC computer, network, Internet, and Web site concepts. Students focus on developing and applying core Internet and Web terminology in regards to network and Internet infrastructures and development concepts. (Prerequisite: Completion of or concurrent enrollment in 890-101 College 101)

152-120 Web Developer Internship - 3 Crs. Provides an opportunity to apply skills learned in prior Web Design/Development coursework to internship situations. Emphasis is on seeking a job, applying skills to job tasks, adapting to company culture, modeling the core abilities, and demonstrating online collaboration and communication. Employment-ready work samples are required upon course entry. (Prerequisite: Completion of or concurrent enrollment in 152-124 e-Commerce: Designing and Marketing Web Sites)

152-121 Object-Oriented Programming - 3 Crs. Designs and outlines the logic and structure of programming. Builds skills in using object oriented programming concepts such as the use of API's, user defined classes, and

program documentation for use in developing complex web applications. Builds skills in creating classes, employing classes, use of data objects, and incorporation of RSS and XML. (Prerequisite: 152-118 Database Driven Websites)

152-122 Migrating to Native Platforms - 3 Crs. Builds skills using a third party software to convert web-based mobile apps to native platforms. Explores native SDK's (software development kits) for various mobile platforms for native application development. Examines the processes required for distribution to mobile marketplaces. Builds skills in advanced CSS technologies for use in mobile development. (Prerequisites: 152-173 Coding for iOS for Web Application Development; 152-174 UX/UI Design for iOS for Web Application Development; 152-175 Coding for Android for Web Application Development; 152-176 UX/UI Design for Android for Web Application Development)

152-124 e-Commerce: Designing and Marketing Web Sites - 3 Crs. Investigates benefits of e-commerce technologies and solutions. Will plan design and develop a Web site incorporating e-commerce technologies to sell products and services including SEO, traffic building, and marketing techniques. Explores integrating with the company's current technology structure and business processes including financial, marketing and distribution. (Prerequisite: 152-118 Database-Driven Web Sites)

152-125 Programming Logic - 2 Crs. Studies structured flowcharting logic for business application programs. Students examine flowcharting concepts, along with required logic, to solve business problems. Students design and then draw the required structure flowcharts. Problem-solving techniques are presented as they apply to business application computer programming.

152-126 Introduction to Systems Analysis - 3 Crs. Introduces the System Development Life Cycle (SDLC) as the logical sequence of steps for successful completion of a system project. All phases of the SDLC are investigated along with their rationale. (Prerequisite: Completion of or concurrent enrollment in 103-159 Computer Literacy - Microsoft Office)

152-127 Visual Studio Developer - 3 Crs. Engages students in a hands-on, lab-oriented course to create object-oriented, event-driven programs. Students use control structures, variables, arrays, procedures and functions to manipulate VB objects and methods. Online sections: On-campus lab instruction available.

152-128 Visual Basic, Database Connectivity - 3 Crs. Create object-oriented, event-driven applications that incorporate several programming techniques and interfaces. Develop competencies in database management using ADO and Sequential Query Language (SQL). Build applications incorporating Windows Common Controls, MDI forms, and Crystal Reports. Online sections: On-campus lab instruction available. (Prerequisites: 152-127 Visual Studio Developer. Completion of or concurrent enrollment in 103-159 Computer Literacy - Microsoft Office)

152-129 Visual Basic, Business Applications - 3 Crs. Introduces Web services and class objects in programming. Students create distributed applications by means of XML Web services and object remoting and explore uses of Visual Basic 2005 and Microsoft SQL Server while developing reusable .NET class objects that incorporate ASP.NET objects. Online sections: On-campus lab instruction available. (Prerequisite: 152-127 Visual Studio Developer)

152-134 Visual Basic, SQL Applications - 3 Crs. Introduces students to developing relational database applications using the Microsoft SQL Server database and Visual Basic.NET. Students create and modify database tables using SQL Server, then manipulate table data using Visual Basic. Introduces students to querying an SQL Server database using Transact-SQL. Students create complex queries that join multiple database tables and stored procedures that interact with database tables, then use those objects inside a VB.NET application. Online sections: On-campus lab instruction available. (Prerequisite: 152-128 Visual Basic, Database Connectivity or 152-129 Visual Basic, Business Applications)

152-137 Java Programming - 2 Crs. Introduces an overview of Java and explains its role in the computing environment. Students learn the fundamentals of the Java language, including classes and objects. Highly recom-

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mended students have prior programming experience.

152-136 MySQL - 3 Crs. Students will work with simple data retrieval and progress to more complex topics including the use of joins, sub-queries, regular expression and full text based searches, stored procedures, cursors, triggers, table constraints, and much more. Additional topics include reviewing MySQL's use as a popular database management system for small development projects to some of the best known and most prestigious sites on the Web.

152-138 Advanced Java Programming - 2 Crs. Students gain skills employing advanced topics such as JavaBeans, Enterprise JavaBeans, network programming, J2EE features, and security through code examples, sample programs, and application exercises. Take your Java programming skills to the next level with this course! (Prerequisite: 152-137 Java Programming)

152-139 C# Development - 3 Crs. Introduces the principles of programming in C#. Students will write, test, debug and execute programs. Students use the Visual Studio.NET development suite to create control structures, methods, arrays, data files and object classes. Online sections: On-campus lab instruction available. (Prerequisite: Completion of or concurrent enrollment in 103-159 Computer Literacy - Microsoft Office)

152-140 Animation Application - 3 Crs. Introduces the fundamentals of developing programming for animation. Students explore the unique qualities of the medium through a series of hands-on projects that can be adapted to their own personal interests. Concept and character development, storyboarding, prototyping, testing and implementation will be discussed. Students will gain hands-on experience in animation programming.

152-141 Interactive Media Programming - 3 Crs. Provides students with fundamental concepts of interactive media programming. Students learn about the development process and techniques and how to apply design principles to create components of interactive media. The focus of the class will be on the creation and use of different types of content, key development issues, process management and professional practices. (Prerequisite: 206-104 Interactive Design and Authoring)

152-146 Database Automation - 3 Crs. Students add functionality to databases by manipulating forms, reports, queries and tables using built-in programming tools and techniques. Students also import and export data, create procedures and functions, create validation routines and perform debugging. Structured Query Language (SQL) is also exposed to the developer as well as interaction with outside programs and the Internet. Online sections: On-campus lab instruction available. (Prerequisite: 152-105 Relational Databases)

152-147 Systems Analysis and Design - 3 Crs. Examines the process of developing information systems that use hardware, software, data, processes and people to support a company's business objectives. Provides fundamentals for a potential systems analyst to develop business systems that will support operations, improve productivity and provide information so managers can make sound business decisions. (Prerequisites: 152-126 Introduction to Systems Analysis; 152-127 Visual Studio Developer)

152-148 Systems Analysis and Implementation - 3 Crs. Designed as a capstone experience, this course provides hands-on development and implementation of the case study project that was designed in the prerequisite class 152-147 Systems Analysis and Design. Students work as a team to code RPG/400 and Visual Basic programs that are then implemented on the AS/400 and evaluated. This working system finalizes the System Development Life Cycle. (Prerequisites: 152-128 Visual Basic, Database Connectivity; 152-147 Systems Analysis and Design)

152-172 Web Site Security - 3 Crs. Employs security strategies to websites. Topics covered: updating platforms and scripts, installing security plugins, securing directories and file permissions, site backups, developing username/password combinations, using server-side validation for forms and login pages, installing a security certificate, forcing login pages to a secure page, and secure FTP file transfers.

152-173 Coding for iOS for Web Application Development - 3 Crs. Develops foundational skills in coding and programming languages used in iOS Web Application development. Students will employ the skills to develop an iOS Web Application for web-based delivery. (Prerequisite: Completion of or concurrent

enrollment in 152-174 UX/UI Design for iOS for Web Application Development)

152-174 UX/UI Design for iOS for Web Application Development - 3 Crs. Employs principles of UX/UI design for the iOS based market. Students will apply design principles in creating user experiences, as well as develop hands on skills with software applications related to UX/UI design work.

152-175 Coding for Android for Web Application Development - 3 Crs. Develops foundational skills in coding and programming languages used in Android Web Application development. Students will employ the skills to develop an Android Web Application for web-based delivery. (Prerequisite: Completion of or concurrent enrollment in 152-176 UX/UI Design for Android for Web Application Development)

152-176 UX/UI Design for Android for Web Application Development - 3 Crs. Employs principles of UX/UI design for Android base market. Students will apply design principles in creating user experiences, as well as develop hands on skills with software applications related to UX/UI design work.

152-177 Introduction to Virtual Reality (VR) Applications - 3 Crs. Explores Software Development Kits (SDK's) that are used to create virtual reality experiences for Android and iOS apps. Students examine how SDK's simplify common Virtual Reality (VR) development tasks and explore the smart phone as a VR platform. Students will examine the common VR tasks such as the use of smart phones to display 3D scenes with binocular rendering, tracking and reacting to head movements, and interaction with apps through the trigger input. Students will also explore steps for building apps that display 3D scenes, adapting an existing 3D app for virtual reality and/or building your own VR experience from scratch. Students will apply best practices for designing apps for VR. (Prerequisites: 152-173 Coding for iOS for Web Application Development; 152-174 UX/UI Design for iOS for Web Application Development; 152-175 Coding for Android for Web Application Development; 152-176 UX/UI Design for Android for Web Application Development)

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152-199 Applications Developer Internship - 3 Crs. Provides field experience as a micro programmer specialist. Students spend 216 hours working at the job site with training supervised by Moraine Park in cooperation with the business site. (Prerequisites: 103-181 Microsoft Access; 103-188 Advanced Microsoft Access; 152-127 Visual Studio Developer; 152-128 Visual Basic, Database Connectivity)

154-101 e-Commerce Management Decisions - 3 Crs. Introduces students to e-commerce and its benefits. Students explore the factors a company must assess in deciding whether to implement e-commerce and research the challenges companies address as they implement e-commerce. (Prerequisite: 103-159 Computer Literacy - Microsoft Office)

154-105 Wireless and Mobile Technology - 3 Crs. Examines the impact and integration of using wireless and mobile technologies. Investigates the hardware behind the new mobile learning revolution. Software, system security and cloud integration will be explored. (Prerequisite: 150-101 Network+)

154-113 Help Desk Concepts - 3 Crs. Focuses on help desk functions, analyzing help desk software and tools, customer service skills for help desk employees, creating training sessions for end users, creating documentation for computer end users, and researching marketing and communications tools for a help desk.

154-115 Training and Development in Office Systems - 3 Crs. Apply the principles of adult learning theory, analyze training needs based on skill or job performance deficiencies, conduct a needs and cost analysis, write learning plans and compose documents reflecting the levels of training evaluations. Students will be required to make training session presentations. (Prerequisite: 801-136 English Composition 1)

154-116 Computer Software Support - 3 Crs. Focuses on installing, modifying, configuring, and upgrading computer software items; performing preventative maintenance on computers; and optimizing a computer system. Students will gain experience with general computer software maintenance and software tools used to maintain and configure computer operating systems and software. Customer service skills will also be emphasized. (Prerequisites: 150-101 Network +; 150-102 Microsoft

Workstations. Completion of or concurrent enrollment in 103-159 Computer Literacy - Microsoft Office)

154-117 Computer Hardware Support - 3 Crs. Focuses on installing, modifying, configuring and upgrading computer hardware items. General computer maintenance and tools to maintain and configure computers will be covered. Emphasizes logical troubleshooting rather than relying on symptoms/solution lists. Students will apply these skills at the Moraine Park Computer Clinic. Customer service skills will be emphasized throughout this practicum course. (Prerequisites: 150-101 Network +; 154-116 Computer Software Support)

154-119 Technical Support Internship - 3 Crs. Provides field experience as a technical support specialist. Students earn one credit per 72 hours in on-the-job training supervised by Moraine Park in cooperation with a business or industry. The student is responsible for obtaining an instructor-approved position and internship site before enrolling in the course. This course can be used for the exit assessment for the IT-Technical Support Specialist program.

154-120 Microcomputer Operating Systems - 2 Crs. Introduces operating system functions and commands. Includes operating system concepts, disk and file formats, and disk and file management. Students will learn how to work through the command line of the operating system and create and use batch files for automated system tasks using Windows command line.

154-122 Introduction to MAC - 3 Crs. Focuses on maintaining and configuring a MAC operating system, performing preventative maintenance on a MAC and investigating the different MAC operating systems.

170-101 Captioning/CART (Lakeshore Technical College Course) - 3 Crs. Prepares the student to utilize realtime terminology and technology, follow guidelines in the CART providers manual, follow ADA regulations, describe CART provider and captioning requirements, write new punctuation and symbols, write a 30-minute news broadcast nonstop, finger-spell words, manage dictionaries, control caption spacing and placement, speaker ID's, write environmental sounds and descriptors, and write technical terms in various subjects.

(PREREQUISITE: 10170156 Testimony 1 - Advanced and 10170109 Literary 1 - Advanced)

170-104 Broadcast Captioning Research Methods (Lakeshore Technical College Course) - 1 Cr. Prepares the learner to prepare (research) prior to broadcast, conduct research in preparation for broadcasting international news, national news, local news, weather reports, sporting events, writing geographical terms, utilize culturally diverse terminology, and create job dictionaries.

170-105 Realtime Reporting 2 (Lakeshore Technical College Course) - 5 Crs. Prepares the student to write multi-syllabic words; punctuation and special symbols, short forms and phrases, prefixes and suffixes; numbers, frequently used words and phrases, contractions using the Z-rule, the "Flagged Alphabet," apply realtime conflict elimination principles, apply realtime theory and write dictation using a realtime theory at a minimum speed of 110 wpm. Concurrent registration in Realtime Reporting 2 Lab is required.

170-106 Realtime Reporting 1 (Lakeshore Technical College Course) - 5 Crs. Prepares the student to use machine shorthand to write consonants, vowels, numbers, multi-syllabic words, multi-consonant words, punctuation and special symbols, short forms and phases, words in their singular and plural forms, and prefixes and suffixes. Concurrent registration in Realtime Reporting 1 Lab is required. (Condition: 101701 Broadcast Captioning or 101702 Court Reporting or 101061 Judicial Reporting program requirements met)

170-108 Realtime Reporting Speed Development (Lakeshore Technical College Course) - 2 Crs. Further develops skills acquired in Realtime Reporting 2 on literary and testimony material beginning at 100 wpm. Scheduled during the summer term, students must pass two, 3-minute timings at a minimum speed of 110 words per minute. (Prerequisite: 10170105 Realtime Reporting 2 or 10106105 Realtime Reporting 2)

170-109 Literary 1 - Advanced (Lakeshore Technical College Course) - 2 Crs. Prepares the student to write literary material at 150 words per minute for 3 minutes and transcribe at least 3 timings with a minimum of 95 percent

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accuracy, write and read back current events dictation, and prepare salable transcripts. Concurrent registration in Literary 1 Lab - Advanced is required. (Prerequisite: 10170113 Literary 1 - Beginner or 10106113 Literary 1 - Beginner or Condition: Minimum of 130 WPM met)

170-110 Deaf Culture for Broadcast Captioners (Lakeshore Technical College Course) - 1 Cr. Introduces the learner to basic terms and concepts related to deafness and hearing loss, the impact of deafness and hearing loss on people's life experiences, languages and communication strategies used by the deaf, the basic anatomy and audiology of the ear, the history of the deaf community, and deafness-related organizations and resources.

170-111 Literary 2 - Advanced (Lakeshore Technical College Course) - 2 Crs. Prepares the student to write literary material at 180 words per minute for 5 minutes and transcribe at least 3 timings with a minimum of 95 percent accuracy, write and read back current events dictation, and prepare salable transcripts. Concurrent registration in Literary 2 Lab - Advanced is required. (Prerequisite: 10170114 Literary 2 - Beginner or 10106114 Literary 2 - Beginner or Condition: Minimum of 160 WPM met)

170-128 Jury Charge 1 – Advanced (Lakeshore Technical College Course) - 2 Crs. Prepares the student to write jury charge material at 160 words per minute for 3 minutes and transcribe at least 3 timings with a minimum of 95 percent accuracy and prepare salable transcripts. Concurrent registration in Jury Charge 1 Lab - Advanced is required. (Prerequisite: 10170121 Jury Charge 1 - Beginner or 10106121 Jury Charge 1 - Beginner or Condition: Minimum of 130 WPM met)

170-129 Jury Charge 2 - Advanced (Lakeshore Technical College Course) - 2 Crs. Prepares the student to write jury charge material at 200 words per minute for 5 minutes and transcribe at least 3 timings with a minimum of 95 percent accuracy and prepare salable transcripts. Concurrent enrollment in Jury Charge 2 Lab - Advanced is required. (Prerequisite: 10170122 Jury Charge 2 - Beginner or 10106122 Jury Charge 2 - Beginner or Condition: Minimum of 180 WPM met)

170-141 Court Reporting Procedures (Lakeshore Technical College Course) - 2 Crs. Introduces the student to reporting procedures for which reporters are responsible in the courtroom, deposition, and real-time reporting environments, including preparing salable transcripts, researching legal citations, and developing professional development plans.

170-144 Realtime Reporting Orientation (Lakeshore Technical College Course) - 1 Cr. Prepares the student to use computer-assisted, real-time transcription software, Windows, e-mail, a steno machine, and a laptop in writing machine shorthand in court reporting and to complete and submit required coursework. (Condition: 101701 Broadcast Captioning or 101702 Court Reporting program requirements met)

170-145 Court Reporting Internship (Lakeshore Technical College Course) - 1 Cr. Prepares the student to write machine shorthand verbatim for a minimum of 40 hours of actual writing time in the courtroom, classroom, and deposition environment under the supervision of a working reporter; prepare a 40-page transcript, and summarize the internship experience in a narrative report. (Prerequisites: 10106108 or 10170108 Realtime Reporting Speed Development; 10106128 or 10170128 Jury Charge 1 – Advanced; 10106109 or 10170109 Literary 1 – Advanced; 10106156 or 10170156 Testimony 1 – Advanced; and Corequisite: 10106129 or 10170129 Jury Charge 2 – Advanced; 10106111 or 10170111 Literary 2 – Advanced; 10106157 or 10170157 Testimony 2 - Advanced)

170-146 Four Voice (Lakeshore Technical College Course) - 1 Cr. Prepares the student to write four-voice testimony from material dictated at a minimum speed of 160 wpm for 5 minutes with a minimum of 95 percent accuracy. (PREREQUISITE: 10170157 Testimony 2 - Advanced)

170-156 Testimony 1 - Advanced (Lakeshore Technical College Course) - 3 Crs. Prepares the student to write 2-voice testimony material at 160 words per minute for 3 minutes and transcribe at least 3 timings with a minimum of 95 percent accuracy and prepare salable transcripts. Concurrent registration in Testimony 1 Lab - Advanced is required. (Prerequisite:

10170153 Testimony 1 - Beginner or 10106153 Testimony 1 - Beginner or Condition: or minimum of 130 WPM met)

170-157 Testimony 2 – Advanced (Lakeshore Technical College Course) - 3 Crs. Prepares the student to write 2-voice testimony material at 225 words per minute for 5 minutes and transcribe at least 3 timings with a minimum of 95 percent accuracy and prepare salable transcripts. Concurrent registration in Testimony 2 Lab - Advanced is required. (Prerequisite: 10170154 Testimony 2 - Beginner or 10106154 Testimony 2 – Beginner or Condition: Minimum of 180 WPM)

170-159 Realtime Reporting Technology (Lakeshore Technical College Course) - 2 Crs. Prepares the student to use CAT (Computer-Assisted Transcription) and real-time software; build personal dictionaries; and read, translate, and edit transcripts. Students are introduced to real-time translation procedures in court, depositions, captioning, and educational environments.

170-160 Legal Terminology (Lakeshore Technical College Course) - 1 Cr. Provides the student with the ability to spell, pronounce, and define legal terms.

170-161 Realtime Reporting Technology Advanced (Lakeshore Technical College Course) - 2 Crs. Prepares the learner to expand their knowledge of computer-assisted transcription and realtime software, dictionary management, specialized editing functions, transcript preparation, auto-included block files, and specialized macros for Steno-related tasks.

170-171 Medical Reporting and Terminology (Lakeshore Technical College Course) - 2 Crs. Prepares the student to write medical terminology in machine shorthand using appropriate medical terminology from material dictated at a minimum speed of 150 wpm for 5 minutes with a minimum of 95 percent accuracy. The student will research medical information, prepare salable transcripts, and submit timings. (Prerequisite: 10170156 Testimony 1 - Advanced or 10106156 Testimony 1 - Advanced)

170-184 English for Realtime Reporters (Lakeshore Technical College Course) - 1 Cr.

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Enhances the student's ability to use proper English grammar, spelling, punctuation, capitalization, and vocabulary techniques in the transcription of the spoken word.

170-804 Realtime Reporting 1 Lab (Lakeshore Technical College Course) - 1 Cr. Prepares the student to use machine shorthand to write consonants, vowels, numbers, multi-syllabic words, multi-consonant words, punctuation and special symbols, short forms and phrases, words in their singular and plural forms, and prefixes and suffixes. Concurrent registration in Realtime Reporting 1 is required. (Corequisite: 10170106 Realtime Reporting 1 or 10106104 Realtime Reporting 1 and Condition: 101701 Broadcast Captioning or 101702 Court Reporting or 101061 Judicial Reporting program requirement met)

170-805 Realtime Reporting 2 Lab (Lakeshore Technical College Course) - 1 Cr. Expands the student's ability to write multi-syllabic words; punctuation and special symbols, short forms and phrases, prefixes and suffixes; numbers, frequently used words and phrases, contractions using the Z-rule, the "Flagged Alphabet," apply realtime conflict elimination principles, apply realtime theory and write dictation using a realtime theory. Concurrent registration in Realtime Reporting 2 is required. (Corequisite: 10170105 Realtime Reporting 2 or 10106105 Realtime Reporting 2)

170-857 Testimony 2 Lab - Advanced (Lakeshore Technical College Course) - 1 Cr. Expands the student's ability to write 2-voice testimony at 225 words per minute and transcribe with 95 percent accuracy a minimum of three, 5-minute, 2-voice timings at 225 words per minute; complete a mock RPR Exam. Concurrent registration in Testimony 2 - Advanced is required. (Corequisite: 10170157 Testimony 2 - Advanced or 10106157 Testimony 2 - Advanced)

170-859 Testimony 1 Lab - Advanced (Lakeshore Technical College Course) - 1 Cr. Expands the student's ability to write 2-voice testimony at 160 words per minute for 3 minutes and transcribe at least 3 timings with a minimum of 95 percent accuracy. (Corequisite: 10170156 Testimony 1 - Advanced or 10106156 Testimony 1 - Advanced)

196-134 Legal Issues in the Workplace - 3 Crs. Provides an overview of the general legal responsibilities of an organization. Analyzes the current employment laws in the United States and their impact on employers/employees. Examines the supervisor's role in dealing with harassment in the workplace. Compares how appeals can be addressed in both a union and nonunion environment.

196-136 Safety in the Workplace - 3 Crs. Introduces safety and loss prevention in the workplace with an emphasis on the supervisor's responsibility for maintaining a safe, productive environment. Studies safety concepts, hazard controls, developing safety and health programs, and federal- and state-mandated regulations.

196-164 Personal Skills for the Workplace - 3 Crs. Applies the skills and tools necessary to deal with time management, stress and related challenges to a supervisor. Students demonstrate the application of time management techniques, personal planning, continuous learning, valuing rights and responsibilities of others, effective communication, assertiveness and dealing effectively with stress.

196-168 Organizational Development - 3 Crs. Addresses organizational issues related to how we work and exist within an organizational setting. Explores the environment of organizations, technology, personality and attitudes of members of an organization. Analyzes how these themes affect organizational behavior. Equips managers with skills to manage behavior of people and to develop processes within an organization.

196-169 Diversity and Change Management - 3 Crs. Addresses changes in the workforce and their effect on the organization. Explores diversity, including values, age, gender, disabilities, education and culture. Provides a framework to gain advantage by blending and capitalizing on the different skills and perspectives of people and creating an organization where everyone gives their best.

196-188 Project Management - 3 Crs. Introduces the project management process including needs assessment, identification of project resources and costs, establishment of a project schedule, managing the project and

assessing the results. In teams, project management concepts are used to analyze problems and create solutions. Students complete true-to-life projects. Basic computer skills recommended.

196-189 Team Building and Problem Solving - 3 Crs. Provides opportunities to explore the benefits and challenges of group work, identify the stages of team development, and recognize roles of team players. Examines a systematic problem-solving process. Students apply skills and tools to facilitate problem solving in a team environment.

196-190 Leadership Development - 3 Crs. Applies the skills and tools necessary to fulfill his/her role as a modern leader. Each student will demonstrate the application of evaluating leadership effectiveness and organization requirements, individual and group motivation strategies, implementing mission and goals, ethical behavior, personal leadership style and adaptation, impacts of power, facilitating employee development, coaching, managing change, and effective conflict resolution.

196-191 Supervision - 3 Crs. Builds skills necessary for a supervisor to direct individuals and the work that needs to be done within the structure of an organization. Emphasizes the human behavioral aspect of supervision. Focuses on the practical application of supervisory principles of organizing, staffing, leading and controlling.

196-192 Managing for Quality - 3 Crs. Examines the role of the supervisor in assisting an organization to produce a quality product and/or service. Examines the Total Quality Management concepts and tools needed in the workplace to stay competitive. Ways to incorporate these concepts and tools will be examined in detail.

196-193 Human Resource Management - 3 Crs. Applies the skills and tools necessary to effectively value and apply employees' abilities to organization goals. Demonstrates the application of the supervisor's role in contemporary human resources management, impacts of EEOC, writing job descriptions, recruitment, selection, conducting job interviews, orientation, developing policies and procedures, training, performance management, employee

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Course Descriptions

counseling and development, and effective use of compensation and benefit strategies.

196-194 Human Resource Recordkeeping - 3 Crs. Applies the skills and tools necessary to effectively manage the required human resources paperwork for employees as well as the organization. Students learn to perform human resource database tasks related to HR administration. Prepares documents for state and federal paperwork requirements for all aspects of human resources. Coordinates the paperwork for all aspects of the hiring process for recruitment, selection, conducting job interviews, orientation, training and performance management. (Prerequisite: 116-130 Introduction to Human Resources)

196-196 Leadership Capstone - 3 Crs. Provides students with an opportunity to apply competencies and skills acquired throughout the leadership development program. Technical skill attainment is measured through demonstration of program outcomes.

204-100 Imaging Editing – 2 Crs. Introduces basic electronic pixel-based image manipulation using Adobe Photoshop software. Builds on the student's required skills of using a computer and its operating system to manage files, present and edit digital images. (A basic knowledge of computer operating systems and familiarity with Photoshop recommended.)

204-102 Vector Illustration 1 - 2 Crs. Uses Adobe Illustrator, a Postscript-compatible, vector-based drawing program, to aesthetically design documents for print, illustration, layout and multimedia projects including Web, print and animation.

204-111 Typography - 3 Crs. Covers basic principles of typography and designing with type. Includes laboratory experience in typographic specifications, computerized copyfitting, creating comprehensive layouts, the application of grid systems, and the use of typographic letterforms in publication design. Uses Adobe InDesign. (Prerequisite: 103-174 InDesign)

204-112 Design Fundamentals - 3 Crs. Introduces students to the basic formal elements and principles of two-dimensional graphic design. Uses visual exercises and

practical projects to explore visual and creative thinking strategies to develop more effective visual communication. Basic computer skills are recommended.

204-116 Digital Graphic Imaging - 3 Crs. Emphasizes the graphic design process, research, concept development, compositing, stylistic approaches and efficient production techniques. Focuses on brand development, typography, page composition and production for digital publications. Advanced techniques will be used to design and output complex files including vector and bitmap graphics. Topics include working with clients, teamwork, efficient workflow, best practices and creating projects for print and web. (Prerequisite: 204-112 Design Fundamentals)

204-121 Publishing Principles - 2 Crs. Develops an overview of the printing and publishing process, including paper, inks, press operation and bindery. Students gain experience and knowledge in the area of publication planning, printing specifications and customer/printer relations.

204-134 Design Production and Planning 1 - 3 Crs. Emphasizes the use of graphic design skills and concepts in the creation of original design projects. Emphasis is on creative thinking strategies that develop more effective visual communication. Service learning, client communications, project development process, and professionalism are stressed throughout. Ability to use the Adobe Creative Suite is needed. (Prerequisites: 103-170 Beginning Photoshop; 103-174 InDesign; 204-102 Vector Illustration 1; 204-111 Typography)

204-144 Vector Illustration 2 - 3 Crs. Explores vector graphic creation tools and procedures used in the design and construction of vector-based images. Emphasizes process-color reproduction. Students build skills in creating, modifying, editing and applying image content to match reproduction requirements. Reflects required skills for advertising signage and imprinting applications. (Prerequisite: 204-102 Vector Illustration 1)

204-163 Acrobat PDF - 2 Crs. Covers the fundamental concepts and features of Adobe Acrobat needed to create and edit PDF files. Students use software tutorials to focus on

learning Adobe Acrobat Pro user interface and PDF document creation and editing procedures. Basic computer skills, Internet connection and current version of Adobe Acrobat Pro software required for online course. (Prerequisite: Completion of or concurrent enrollment in 103-159 Computer Literacy - Microsoft Office)

204-168 Design Production and Planning 2: Digital Output - 3 Crs. Applies the use of graphic design and software skills developed in design, page layout, illustration, photography and typography courses. Emphasizes and recognizes individual skills, creativity, process and technique as students assemble both a hard copy and digital personal portfolio. Students will complete the Graphic Communications Program exit assessment through participation in the MPTC Portfolio Showcase. (Prerequisite: 204-134 Design Production and Planning 1)

204-181 Prepress Process Color - 3 Crs. Provides an understanding of the theory of color as it relates to graphic design and prepress workflow. Topics explored include the basics of color theory, the properties of color, global meanings of color, color management, and the use of color for the web and for print production. Examines both traditional and electronic prepress procedures. (Prerequisite: 103-170 Beginning Photoshop)

206-104 Interactive Design and Authoring - 3 Crs. Design/develop original vector based artwork, type and animations using Adobe Flash software including an introduction to ActionScript for movie control and interactivity. Incorporate imported graphics, music and video into Flash movie production. Develop skills outputting Flash Movies for desktop and web delivery. Experience with HTML and CSS is recommended.

206-106 Introduction to the Interactive Media Industry - 1 Cr. Explores the Interactive Media industry including history, trends, career paths, opportunities and applications. Provides an introduction to the types of terminology, software/hardware and equipment used in the field. (Prerequisite: Completion of or concurrent enrollment in 890-101 College 101)

206-108 Motion/Visual Effects – 2 Crs. Utilizes After Effects software to create motion graphics and animation. Explores green screen

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Course Descriptions

techniques, motion tracking, and compositing video and animation. Focuses on keyframing, masking and using alpha channels.

206-110 Video/Sound Editing - 3 Crs. Covers fundamental techniques of sound capturing, digitizing sound, mixing audio, synchronizing audio to animation (lip sync), and audio as a storytelling medium. Explores the history of audio and film making process. Students perform basic sound and video editing to create a short film.

206-112 Digital Graphic Design - 3 Crs. Introduces students to the basic formal elements and principles of two-dimensional graphic design. Uses visual exercises and practical projects to explore visual and creative thinking strategies to develop more effective visual communication. Basic computer skills are recommended.

206-114 Flash Animation Application - 3 Crs. Incorporates advanced Flash applications to design dynamic Web advertisements, interactive games and animation. Explores basic Action Script programming. (Prerequisite: 206-104 Interactive Design and Authoring)

206-116 Digital Graphic Imaging - 3 Crs. Students will concentrate on the graphic design process, research, concept development, comping, stylistic approaches and efficient production techniques. Assignments focus on typography, page composition and production for digital publications. Advanced techniques will be used to design and output complex composite files including vector and bitmap graphics. Topics include working with clients, teamwork, efficient workflow, best practices and creating trouble-free files for reproduction. (Prerequisite: 206-112 Digital Graphic Design)

206-118 Designing for Mobile Applications - 3 Crs. Focuses on designing apps for smart phone technologies (such as the iPad or iPhone). (Prerequisites: 204-100 Image Editing; 204-102 Digital Illustration and Design; 206-104 Interactive Design and Authoring)

206-120 Team Production - 3 Crs. Students work together in teams to design and create a final multimedia project for a business or internal customer. Emphasizes the project management process from pre-production to

post production phases, teamwork, problem solving and decision making. (Prerequisites: 206-114 Flash Animation Application; 207-128 3-D Animation 2. Completion of or concurrent enrollment in 206-118 Designing for Mobile Applications; 207-132 Virtual Worlds and Game Applications)

206-122 Video Camera and Lighting Techniques - 3 Crs. Review the basics of video production theory and practice, compare technologies, identify techniques for operating the video camera, and learn concepts of the moving camera. Techniques of lighting placement and operation will also be covered. (Prerequisite: 206-110 Video/Sound Editing)

206-124 Pre-Production - 3 Crs. Examine the creation of digital video effects, editing techniques, and media management. (Prerequisite: 206-110 Video Sound Editing)

206-126 Post-Production - 3 Crs. Examine the creation of digital video effects, editing techniques, and media management. (Prerequisite: 206-110 Video Sound Editing)

207-122 Basic Drawing for Animation - 3 Crs. Provides an overview of the drawing process and fundamentals of art and design through a variety of techniques and materials including pencil, paper and computer software. Focuses on anatomy, life and perspective drawing. Introduces fundamentals of character design.

207-124 Animation 1 - 3 Crs. Introduces animation principles including basic storyboards, layout, walk cycles, timing, and overlapping action and character design. Explores 2-D vector-animation. (Prerequisites: 204-100 Imaging Editing; 207-122 Basic Drawing for Animation)

207-126 Introduction to 3-D Animation - 2 Crs. Focuses on basic modeling techniques, material creation, lighting, and animation and using 3-D Max software. Students learn to create and modify cameras, helpers, and space warps. Different rendering techniques will also be explored throughout the class by students. Students create interior and exterior scenes and render the animations to files. (Prerequisite: Completion of or concurrent enrollment in 103-159 Computer Literacy - Microsoft Office)

207-128 3-D Animation 2 - 3 Crs. Focuses on creating and animating a 3-D character. Students learn how to match camera movement from live footage and incorporate an animation into their scene. Covers staging, posing, and assembling shots to create short animation sequences. (Prerequisite: 207-126 Introduction to 3-D Animation)

207-130 Animation 2 - 3 Crs. Applies 2-D, pixel and vector animation concepts from Animation 1 to create a short animation sequence with sound. Utilizes storyboarding, character design, animation and principles of acting. (Prerequisites: 207-124 Animation 1; 207-126 Introduction to 3-D Animation)

207-132 Virtual Worlds and Game Applications - 3 Crs. Focuses on animation used for interactive games and online virtual worlds. Explores virtual world creation, game design, development and execution. (Prerequisite: 207-128 3-D Animation 2)

207-134 Figure Drawing - 3 Crs. Translate basic structural relationships, both skeletal and muscular, through the drawing medium. (Prerequisite: 207-124 Animation 1)

207-136 Advanced Image Manipulation (2D) - 3 Crs. Further develops 2-D animation skills, with focus on production procedures, character animation, as they relate to creating educational animations, with simplified Flash Action Script navigation. (Prerequisites: 207-124 Animation 1; Recommend 206-104 Interactive Design and Authoring)

207-138 Introduction to Maya (3D) - 3 Crs. Establish modeling skills and knowledge necessary to create a character that can be animated using Maya software application. Coursework will help to establish a solid understanding of polygonal modeling, rigging, lighting, rendering, and animation using this application. (Prerequisite: 207-128 3-D Animation 2)

207-140 Texture Mapping - 3 Crs. Prepare images for use in texturing, texture 3D objects, create texture maps for 3D and identify mapping tools for the art pipeline. (Prerequisite: 207-128 3-D Animation 2)

207-142 Lighting and Rendering - 3 Crs. Light 3D scenes, set-up shading networks and render

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3D images with alpha channels for compositing. Students will demonstrate an understanding of composition through lighting, camera, and color manipulation. (Prerequisite: 207-128 3-D Animation 2)

307-102 ECE: Preschool Capstone - 3 Crs.

Capstone is the last course students take prior to completing the Preschool Credential. Covers and revisits important themes from the prior five courses. Students synthesize information and demonstrate mastery of the competencies through the completion of a portfolio. Student must be working in or be willing to be placed in a classroom appropriate to the age of their capstone. (Prerequisites: 307-148 ECE: Foundations of Early Childhood Education; 307-167 ECE: Health, Safety and Nutrition; 307-178 ECE: Art, Music and Language Arts; 307-179 ECE: Child Development; 307-188 ECE: Guiding Children's Behavior)

307-110 Behavioral and Emotional

Challenges - 3 Crs. Covers specific discipline and guidance strategies and individualized intensive interventions based on the CSEFEL (Center on Social and Emotional Foundations for Early Learning) curriculum with additional inclusion strategies related to autism, attention deficit disorder, bipolar disorder, reactive attachment disorder, conduct disorder, oppositional defiant disorder, obsessive compulsive disorder, brain injuries, etc., while focusing on building rapport with families and communicating the need for positive, consistent, team approaches to including children with challenging behaviors in typical community settings.

307-111 Special Healthcare Needs - 3 Crs.

Covers frequently encountered specialized healthcare needs of individuals with disabilities, preparing the student to examine altered body systems function, including sensory, gastrointestinal (tube feedings), bowel and bladder elimination, respiratory (allergies and asthma), cardiovascular/blood, musculoskeletal, neurological, skin/immune, and endocrine (diabetes) related issues. You will not be practicing medicine, but will gain a better understanding of medical issues and professionals who can support you in establishing policies and procedures that assure safe, quality care.

307-112 Family and Team-Centered

Practices - 3 Crs. Students volunteer in an Early Childhood Education (ECE) program

with a child who has special needs and spend time with that child's family at home and in the community. Students have the opportunity to participate with a child and a family in daily routines and community settings, i.e., church, grocery shopping, library, therapy settings, etc. Students complete the required Credential Portfolio and culminate in the Wisconsin Registry Commission process. (Prerequisites: 307-110 Behavioral and Emotional Challenges; 307-111 Special Healthcare Needs; 307-187 ECE: Children With Differing Abilities)

307-131 Administration and Supervision -

3 Crs. This is the first of six courses designed to prepare participants to receive a credential as a child care administrator. Like the other five courses, it is developed to meet the needs of those who are employed or would like to be employed as administrators in child care programs, Head Start, nursery schools, school age programs, family child care, child welfare service agencies, public and private schools, and other early care and education programs. This course represents an overview of the roles and responsibilities of administrators of various early care and education programs and the groups with whom they have role relationships with an emphasis on quality. (May be taken out of sequence)

307-132 Operations Management - 3 Crs.

Second of six courses designed to prepare participants to receive a credential as a child care administrator. Like the other five courses, it is developed to meet the needs of those who are employed or would like to be employed as administrators in child care programs, Head Start, nursery schools, school age programs, family child care, child welfare service agencies, public and private schools, and other early care and education programs. Includes an introduction to systems and operations theory and the identification of concepts, processes, systems, and policies involved in the internal management of early care and education programs. Offers opportunity to apply this knowledge to plans for the improvement of these necessary systems, and for the development of standard operating procedures as appropriate.

307-133 Financial Management - 3 Crs.

This is the third of six courses designed to prepare participants to receive a credential as a child care administrator. Like the other five courses, it is developed to meet the needs of those who

are employed or would like to be employed as administrators in child care programs, Head Start, nursery schools, school age programs, family child care, child welfare service agencies, public and private schools, and other early care and education programs. This course represents an overview of the roles and responsibilities of administrators of various early care and education programs and the groups with whom they have role relationships, with an emphasis on quality. (May be taken out of sequence)

307-134 Early Childhood Programs and the External Environment - 3 Crs.

This is the fourth of six courses designed to prepare participants to receive a credential as a child care administrator. Like the other five courses, it is developed to meet the needs of those who are employed or would like to be employed as administrators in child care programs, Head Start, nursery schools, school age programs, family child care, child welfare service agencies, public and private schools, and other early care and education programs. This course covers the external factors and relationships that provide constraints and opportunities that affect an organization's quality and ability to survive. It includes predicting supply and demand, marketing, licensing and other required regulation, funding, accreditation, external evaluation, collaboration with community organizations and agencies, public policy issues in early care and education, advocacy and working for public policy changes. (May be taken out of sequence)

307-135 Best Practices - 3 Crs. This is the fifth of six courses designed to prepare participants to receive a credential as a child care administrator. Like the other five courses, it is developed to meet the needs of those who are employed or would like to be employed as administrators in child care programs, Head Start, nursery schools, school age programs, family child care, child welfare service agencies, public and private schools, and other early care and education programs. This course covers child care as a family friendly community; integration of child growth and development principles into all aspects of the program; establishing and maintaining quality in program; developing partnerships with families; multi-cultural and anti-bias approaches in curriculum, materials, activities and relationships; space design and equipment. (May be taken out of sequence)

307-136 Administrative Seminar - 3 Crs. This is the last of six courses designed to prepare participants to receive a credential as a child care administrator. Like the other five courses, it is developed to meet the needs of those who are employed or would like to be employed as administrators in child care programs, Head Start, nursery schools, school age programs, family child care, child welfare service agencies, public and private schools, and other early care and education programs. Students in this course have completed the first five courses successfully. Those first five courses are primarily about mastering the necessary skills to be successful at managing quality early childhood programs. The strategies learned in this course build upon their management skills, and take them beyond management to incorporate leadership in their programs, communities, and profession. In this course they are ready to synthesize the material they have learned. Through the development of a major project, students demonstrate the integration and application of the concepts and skills acquired in the full series of courses. (Prerequisites: 307-131 Administration and Supervision; 307-132 Operations Management; 307-133 Financial Management; 307-134 Early Childhood Programs and the External Environment; 307-135 Best Practices)

307-148 ECE: Foundations of Early Childhood Education - 3 Crs. Introduces students to the early childhood profession. Course competencies include: integrate strategies that support diversity and anti-bias perspectives; investigate the history of early childhood education settings; identify the components of a quality early childhood education program; summarize responsibilities of early childhood education professionals; explore early childhood curriculum models; analyze the principles of the Wisconsin Model Early Learning Standards.

307-151 ECE: Infant and Toddler Development - 3 Crs. Students study infant and toddler development as it applies to an early childhood education setting. Course competencies include: integrate strategies that support diversity and anti-bias perspectives; analyze development of infants and toddlers (conception to three years); correlate prenatal conditions with development; summarize child development theories; analyze the role of hered-

ity and the environment; examine culturally and developmentally appropriate environments for infants and toddlers; examine the role of brain development in early learning (conception through age three); examine caregiving routines as curriculum.

307-166 ECE: Curriculum Planning - 3 Crs. Examines the components of curriculum planning in early childhood education. Course competencies include: integrate strategies that support diversity and anti-bias perspectives; examine the critical role of play; establish a developmentally appropriate environment; integrate Developmentally Appropriate Practice (DAP) into curriculum; develop activity plans that promote child development and learning; develop curriculum plans that promote child development and learning across all content areas; analyze early childhood curriculum models. (Prerequisites: 307-178 ECE: Art, Music and Language Arts; 307-194 ECE: Math, Science and Social Studies)

307-167 ECE: Health, Safety and Nutrition - 3 Crs. Examines the topics of health, safety and nutrition within the context of the early childhood educational setting. Course competencies include: integrate strategies that support diversity and anti-bias perspectives; follow governmental regulations and professional standards as they apply to health, safety and nutrition; provide a safe early childhood program; provide a healthy early childhood program; provide a nutritionally sound early childhood program; adhere to child abuse and neglect mandates; apply Sudden Infant Death Syndrome (SIDS) risk-reduction strategies; incorporate health, safety and nutrition concepts into the children's curriculum. Highly recommend taking this course with an ECE practicum course.

307-169 ECE: Infant/Toddler Group Care - 3 Crs. Examines the principles of developmentally appropriate infant/toddler care in center-based and family-child care settings. Program environment, structure and philosophy are explored as are diversity and inclusion and relevant health and safety issues.

307-174 ECE: Practicum 1 - 3 Crs. Students learn about and apply the course competencies in an actual child care setting. The course competencies include: document children's behavior; explore the standards for quality early

childhood education; explore strategies that support diversity and anti-bias perspectives; implement activities developed by the co-op teacher/instructor/student; demonstrate professional behaviors; practice caregiving routines as curriculum; practice positive interpersonal skills with children and adults; analyze how WI Early Learning Standards provide a framework of guiding principles, developmental expectations, and program and performance standards to delineate the five developmental domains that embody delivery of quality education and care to young children; incorporate WI Early Learning Standards with the principles of developmentally appropriate practice, intentionality and the teaching cycle to examine child development; evaluate program integration of WI Early Learning Standards into the teaching cycle of Ongoing assessment, Planning and curriculum goals, and Implementation; identify specific goals and learning and assessment activities to promote the development of a focus child utilizing the WI Early Learning Standards; develop a plan for child learning utilizing the performance standards, developmental continuum and developmental domains from the WI Model Early Learning Standards that is based on experiential learning. Highly recommend taking 307-167 ECE: Health, Safety and Nutrition with this course. (Prerequisites: Completion of or concurrent enrollment in 890-101 College 101. Concurrent enrollment in 307-178 ECE: Art, Music and Language Arts or 307-194 ECE: Math, Science and Social Studies; Requirements must be completed by due date; Infant Child CPR with AED, health requirements, and Criminal Background Check)

307-178 ECE: Art, Music and Language Arts - 3 Crs. Focuses on beginning-level curriculum development in the specific content areas of art, music, and language arts. Course competencies include: integrate strategies that support diversity and anti-bias perspectives; examine the critical role of play; establish a developmentally appropriate environment for art, music, and language arts; develop activity plans that promote child development and learning; analyze caregiving routines as curriculum; create developmentally appropriate language, literature, and literacy activities; create developmentally appropriate art activities; create developmentally appropriate music and movement activities. Highly recommend taking this course with an ECE practicum course.

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307-179 ECE: Child Development - 3 Crs.

Examines child development within the context of the early childhood education setting. Course competencies include: analyze social, cultural, and economic influences on child development; summarize child development theories; analyze development of children age three through age eight; summarize the methods and designs of child development research; analyze the role of heredity and the environment; examine the role of brain development in early learning (age three through age eight).

307-180 Early Childhood Mentor and Teacher Seminar - 2 Crs.

Focuses on developing skills for early childhood mentor teachers to support, model and articulate best practice in the field to less-experienced protégés. Mentors develop their own professional skills, attitudes and knowledge by reading, reflecting and discussing up-to-date issues in early childhood education.

307-181 Early Childhood Mentors and Protégés at Work - 3 Crs.

Provides opportunities for mentors and protégés to share in a joint educational experience. Mentor-protégé pairs examine their early childhood environments and incorporate new ideas of diversity, culture and inclusion into interactions with others. Mentors and protégés use processes of collaboration, problem solving, dialoguing and conflict resolution to set goals.

307-187 ECE: Children With Differing Abilities - 3 Crs.

Focuses on the child with differing abilities in an early childhood education setting. Course competencies include: integrate strategies that support diversity and anti-bias perspectives; provide inclusive programs for young children; apply legal and ethical requirements including, but not limited to, ADA and IDEA; work collaboratively through the consultation process to embed intervention in natural based settings; differentiate between typical and exceptional development; analyze the differing abilities of children with physical, cognitive, health/medical, communication, and/or behavioral/emotional disorders; work collaboratively with community and professional resources; utilize an individual educational plan (IEP/IFSP) for children with developmental differences; adapt curriculum to meet the needs of children with developmental differences; cultivate partnerships with families who have children with developmental differences.

307-188 ECE: Guiding Children's Behavior - 3 Crs.

Examines positive strategies to guide children's behavior in the early childhood education setting. Course competencies include: integrate strategies that support diversity and anti-bias perspectives; summarize early childhood guidance principles; analyze factors that affect the behavior of children; practice positive guidance strategies; develop guidance strategies to meet individual needs; create a guidance philosophy.

307-192 ECE: Practicum 2 - 3 Crs.

Students will learn about and apply the course competencies in an actual child care setting. The course competencies include: identify children's growth and development; maintain the standards for quality early childhood education; practice strategies that support diversity and anti-bias perspectives; implement student teacher-developed activity plans; identify the elements of a developmentally appropriate environment; implement positive guidance strategies; demonstrate professional behaviors; utilize caregiving routines as curriculum; utilize positive interpersonal skills with children; utilize positive interpersonal skills with adults. Highly recommend taking 307-194 Math, Science and Social Studies with this course. (Prerequisite: 307-174 ECE: Practicum 1)

307-194 ECE: Math, Science and Social Studies - 3 Crs.

Focuses on beginning-level curriculum development in the specific content areas of math, science and social studies. Course competencies include: integrate strategies that support diversity and anti-bias perspectives; examine the critical role of play; establish a developmentally appropriate environment for math, science, and social studies; develop activity plans that promote child development and learning; create developmentally appropriate science activities; create developmentally appropriate math activities; create developmentally appropriate social studies activities. (Prerequisite: Completion of or concurrent enrollment in 103-159 Computer Literacy - Microsoft Office)

307-195 ECE: Family and Community Relationships - 3 Crs.

Students will examine the role of relationships with family and community in early childhood education. Course competencies include: implement strategies that support diversity and anti-bias perspectives

when working with families and community; analyze contemporary family patterns, trends, and relationships; utilize effective communication strategies; establish ongoing relationships with families; advocate for children and families; work collaboratively with community resources.

307-196 Infant/Toddler Capstone - 3 Crs.

Emphasizes the skills needed for students to demonstrate practical application of skills and theory learned in previous courses. Students create individual portfolios of representative examples of their work to submit to the Registry for evaluation. (Prerequisites: Criminal Background Check; Background Information Disclosure Form; CPR and completed Health Form required)

307-197 ECE: Practicum 3 - 3 Crs.

Students will learn about and apply the course competencies in an actual child care setting. The course competencies include: assess children's growth and development; implement the standards for quality early childhood education; integrate strategies that support diversity and anti-bias perspectives; build meaningful curriculum; provide a developmentally appropriate environment; facilitate positive guidance strategies; evaluate one's own professional behaviors and practices; lead caregiving routines as curriculum; utilize positive interpersonal skills with children; utilize positive interpersonal skills with adults. (Prerequisite: 307-192 ECE: Practicum 2)

307-199 ECE: Practicum 4 - 3 Crs.

Students learn and apply the course competencies in an actual child care setting. Course competencies include: analyze children's growth and development based on assessment; integrate strategies that support diversity and anti-bias perspectives; promote professional behaviors and practices; implement meaningful curriculum; create respectful, reciprocal relationships; evaluate early childhood education programs for quality; explore professional options in early childhood education. (Prerequisite: 307-197 ECE: Practicum 3)

316-102 Culinary Principles - 3 Crs.

Introduces culinary students to basic culinary standards including basic food preparation, sanitary practices, product identification and recipe calculations.

316-116 Menu Planning, Management and Design - 1 Cr. Builds upon basic menu planning knowledge from 316-121 Nutrition. Menus are planned for varying food operations and budgets. Projects will include designing for merchandising, menu pricing procedures and menu analysis.

316-121 Nutrition - 2 Crs. Applies the principles of nutrition from a personal and food service perspective. Information will be applied to the individual and to the food service industry. Applies basic nutritional principles to the selection of recipes and preparation methods that meet special dietary guidelines.

316-142 Restaurant Operations - 3 Crs. Applies management skills needed to operate a restaurant or other food service. Emphasizes qualitative and quantitative portion control, work simplification and sanitary standards that are applicable to food service operations. (Prerequisite: Instructor approval)

316-147 Sanitation and Safety - 2 Crs. Provides the student with the skills and knowledge to prepare and serve safe and wholesome food to the public. Focuses on the challenges to food safety, developing a food safety system - Hazard Analysis Critical Control Point, working in a safe environment and maintaining sanitary facilities and equipment.

316-151 Fundamentals of Meat Analysis - 3 Crs. Develops student's ability to identify meat or poultry by carcass, primal, subprimal and fabricated cuts of meat. Develops student's ability to make wise choices when purchasing meats and poultry by using yield grades, quality grades and pricing structures set in the meat industry. Students will do meat fabricating, meat grinding, meat smoking and sausage making.

316-153 Food Purchasing - 2 Crs. Develops purchasing skills needed to understand the complex tasks of selection and procurement of products in the different markets. Provides experiences of planning, controlling and organizing systems for purchasing of foods. Explore grades, standards, markets, specifications and terminology needed to purchase food and supplies for a food service operation. (Prerequisites: Completion of or concurrent enrollment in 103-159 Computer Literacy - Microsoft Office; 890-101 College 101)

316-160 Baking - 2 Crs. Develops basic skills in producing scratch quick breads, pate a choux, yeast breads, cookies, cakes, and pies. Students cost recipes; learn baker's percentage; weigh and measure ingredients; and mix, shape, bake, garnish, package and merchandise bakery products. Includes integration of safety and sanitation principles in bakery production.

316-162 Breakfast Pastries - 2 Crs. Develops skills in producing Danish, croissant, puff pastry, sweet dough, and other breakfast items. Students learn to use preferments with yeast dough and produce scratch fillings for various breakfast pastries. Both sweet and savory fillings will be covered. (Prerequisite: Completion of or concurrent enrollment in 316-160 Baking)

316-165 Catering and Special Function Planning - 3 Crs. Provides hands-on experience in preparing and costing menus for special functions and banquets. Analyzes planning, controlling and organizing of on- and off-premise catering functions, assessing the importance of purchasing needs, supervisory procedures, sales cost analysis, personnel, preparation, service and evaluation.

316-167 Food Styling - 2 Crs. Explores artistic food displays utilizing different products and using advanced culinary techniques. Students may have a chance to compete in statewide competition with hot plate presentation.

316-168 Artisan Breads - 3 Crs. Provides students with skills to produce high-quality breads using traditional artisan techniques and wholesome products. Lean, enriched, braided and sourdough breads will be produced. Covers the use of preferments (including sourdough starters), mixing techniques, hand-molding breads and formula development. (Prerequisite: 316-160 Baking)

316-169 Cakes, Tortes and Desserts - 2 Crs. Introduces students to a variety of upscale scratch cake and pastry items that can be produced for restaurants, hotels, bakeries or home-based baking. Focuses on basic high-quality ingredients, sound production and finishing techniques.

316-171 Restaurant Management - 3 Crs. Addresses the application of managerial principles of planning, controlling and organizing

to a food service operation. Provides hands-on experience in costing, inventory, labor controls, sales analysis and yield testing.

316-175 Specialty Foods and Ethnic Cookery - 3 Crs. Plan, prepare and serve specialty and ethnic foods in a gourmet restaurant setting. Activities include research of ethnic and specialty foods, advanced food preparation skills, artistic presentation and formal table-side service of those foods. Students perform the following management functions: convert and cost recipes, calculate menu prices, purchase ingredients, plan production, create marketing strategies, and prepare payroll and profit and loss statements. A tetanus shot is recommended prior to the course. (Prerequisite: Instructor approval)

316-180 Gourmet Cooking - 1 Cr. - Emphasizes competencies from throughout the program as related to the offering of the final dinner. Students attend organizing lecture sessions and receive specific lab assignments for the preparation of the dinner. (Prerequisites: Completion of 316-183 Food Production for Vegetables and Potatoes; 316-184 Food Production for Pastas, Grains and Breakfast Cookery; 316-185 Food Production for Stocks and Soups; 316-187 Food Production for Cold Food; 316-189 Food Production for Meat, Fish and Poultry; 316-190 Food Production for Hot Sandwiches, Deli and Short-Order Cookery)

316-181 Customer Sales and Service - 1 Cr. Categorizes trends, business habits and personal attitudes of owners/managers/chefs/servers. Analyzes procedures for selling, merchandising and marketing by a salesperson in a restaurant setting. Develops student's ability to meet, greet, and socialize with customers.

316-183 Food Production for Vegetables and Potatoes - 2 Crs. Develops skills in producing vegetable and potato items using various cooking techniques including boiling, brasing, sauté, baking, and deep frying. Focuses on the student's conversion of recipes and preparation of food. Students operate large and small food production equipment. Develops strategies to apply safety and sanitary methods of food production. (Prerequisite: Completion of or concurrent enrollment in 316-102 Culinary Principles)

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316-184 Food Production for Pastas, Grains and Breakfast Cookery - 2 Crs. Applies the basic techniques involved with potatoes, grains, legumes and breakfast cookery preparation. Focuses on the student's conversion of recipes, requisition of supplies and preparation of food. Students operate large and small food production equipment. Develops strategies to apply safety and sanitary methods of food production. (Prerequisite: Completion of or concurrent enrollment in 316-102 Culinary Principles)

316-185 Food Production for Stocks and Soups - 2 Crs. Applies the basic techniques involved with soup and sauce preparation: stocks, thickening agents, clear soups, cream soups and grand sauces and their derivative sauces. (Prerequisite: Completion of or concurrent enrollment in 316-102 Culinary Principles)

316-187 Food Production for Cold Food - 2 Crs. Develops skills in preparing salads and dressings that appeal to the eye and palate. Attention to creativity. Focuses on the student's conversion of recipes, requisition of supplies and preparation of food. Students operate large and small food production equipment. Develops strategies to apply safety and sanitary methods to food production. (Prerequisite: Completion of or concurrent enrollment in 316-102 Culinary Principles)

316-189 Food Production for Meat, Fish and Poultry - 2 Crs. Develops skills in preparing meat, fish and poultry products. Students convert recipes, requisition supplies, integrate safety and sanitation principles in food preparation, and demonstrate dry- and moist-heat cooking methods using standardized and developed recipes. (Prerequisite: Completion of or concurrent enrollment in 316-102 Culinary Principles)

316-190 Food Production for Hot Sandwiches, Deli and Short-Order Cookery - 2 Crs. Develops skills in preparing a variety of hot sandwiches and sandwich short orders. Also develops skills to cook luncheon foods to order. Introduces deli foods and layout of deli items. (Prerequisite: Completion of or concurrent enrollment in 316-102 Culinary Principles)

410-301 Power Tool Use and Safety - 1 Cr. Introduces the use, maintenance and related safety practices of both portable and stationary power tools common to the building trades industry.

410-302 Advanced Roof Framing - 1 Cr. Introduces students to principles of roof layout and framing of complex equal and unequal pitch roofs. Emphasis is on gable and hip roofs and conventional framing. Previous roof framing and layout experience is encouraged.

410-303 Estimating and Scheduling for Building Trades - 1 Cr. Introduces the basic principles of estimating construction projects. Students perform material take-offs and perform calculations to determine quantities, labor allocations, equipment needs, areas and volumes.

410-305 Advanced Stair Construction - 1 Cr. Introduces students to layout methods and construction practices as they relate to construction of basic and complicated staircases. Instruction will be based on both theoretical and hands-on applications. Previous stair layout and construction experience is encouraged.

410-306 Wisconsin Uniform Dwelling Code - 1 Cr. Introduces students to the Wisconsin Uniform Dwelling Code as it relates to residential and light commercial construction. Students investigate different building applications and apply proper building regulations utilizing the code.

410-307 Construction Measurement and Layout - 1 Cr. Applies trade-related measurement and layout practices to field applications. Students demonstrate use of measurement and layout tools in both lab and field applications. Discusses proper utilization of laser equipment for layout.

410-311 Construction Trades Blueprint Reading - 1 Cr. Introduces the skills required to read and interpret building trade-related blueprints. Incorporates sketching, interpretation of symbols and line identification. Provides experience in reading plans in both residential and light commercial construction, as well as interpreting specification.

410-456 Rigging for Building Trades - .45 Cr. Introduces proper methods for safely securing equipment and materials for transporting, lifting and mobilizing. Emphasizes SAFE practices. Examines rigging equipment and demonstrates applications. Introduces crane safety and signaling.

410-531 ABC Carpentry 1 - 2 Crs. Introduces students to safety, math, hand and power tools, various building materials, fasteners and adhesives. Must be a state-contracted apprentice to enroll in this course.

410-532 ABC Carpentry 2 - 2 Crs. Examines floor, wall and roof framing, as well as windows and exterior doors. Must be a state-contracted apprentice to enroll in this course. (Prerequisite: 410-531 ABC Carpentry 1)

410-533 ABC Carpentry 3 - 2 Crs. Introduces the apprentice to site layout, concrete and reinforcing materials, as well as the installation of reinforced concrete, foundations and flatwork. Must be a state-contracted apprentice to enroll in this course. (Prerequisite: 410-532 ABC Carpentry 2)

410-534 ABC Carpentry 4 - 2 Crs. Explains the handling and placing of concrete and introduces the apprentice to field-built and patented-form systems. Must be a state-contracted apprentice to enroll in this course. (Prerequisite: 410-533 ABC Carpentry 3)

410-535 ABC Carpentry 5 - 2 Crs. Provides students with training in exterior finishing and roofing application, thermal and moisture protection, and basic stair construction, as well as metal studs and drywall installation and finishing. Must be a state-contracted apprentice to enroll in this course. (Prerequisite: 410-534 ABC Carpentry 4)

410-536 ABC Carpentry 6 - 2 Crs. Introduces the apprentice to areas of interior finish work; interior doors; suspended ceilings; window, door, floor and ceiling trim; and cabinets. Must be a state-contracted apprentice to enroll in this course. (Prerequisite: 410-535 ABC Carpentry 5)

410-537 ABC Carpentry 7 - 2 Crs. Expands the apprentice's understanding of previously studied materials through an in-depth study of advanced floor, wall, stair and roof systems. Must be a state-contracted apprentice to enroll in this course. (Prerequisite: 410-536 ABC Carpentry 6)

410-538 ABC Carpentry 8 - 2 Crs. Introduces student to project supervision and management including organizational and people-related skills, job site organization tasks, time

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management, as well as introduction to metal buildings and light equipment. Must be a state-contracted apprentice to enroll in this course. (Prerequisite: 410-537 ABC Carpentry 7)

410-557 Estimating and Scheduling for Building Trades - .75 Cr. Introduces the elements of manual take-off as related to residential construction. Students create material take-off sheets; calculate quantities and price materials to establish a total project material cost; develop a construction schedule and generate an estimate of project labor costs. Blueprint reading experience is beneficial. An architectural scale and calculator are required.

413-103 Commercial Drivers License (CDL) Preparation - 1 Cr. Prepares students for taking the written portion of the Class A Commercial Driver's License test. Students, upon completion, will take the written test at the Department of Motor Vehicles test center to acquire the Instruction Permit (temps). The course is restricted to students enrolled in the Electrical Power Distribution program 31-413-2.

413-110 Introduction to Energy (Lakeshore Technical College Course) - 1 Cr. Provides the learner with an overview of electrical energy generation and distribution. Applications and tours include electricity from the following modes: photovoltaic, wind, coal-fired, hydro, and natural gas. Careers for maintenance technicians and plant operators are explored.

413-142 Introduction to Electrical Substations - 3 Crs. Instructs students in the concepts of electrical substation construction. Explores safety in substation construction. Identifies IEEE engineering symbols. Students learn how to read one-line, wiring and schematic diagrams. Identifies key electrical components in an electrical substation and explains their theory of operation. Interprets name plate information on the substation equipment. Explores the differences between switching stations and substations and their functions in the grid. (Prerequisite: 413-307 Electrical Theory and Safety 1)

413-144 Substation Control and System Protection - 3 Crs. Provides a comprehensive overview of how electrical substations are controlled both manually and through automation, modeling the second and third-year

substation electrician apprenticeship. Includes substation communications, voltage regulation, power quality, and system protection devices and schemes including circuit breakers, fusing and relays. Provides hands on experience in maintaining load tap changing equipment such as "LTC's" and voltage regulators. Provides wiring experience on current transformers and potential transformers for metering and relaying applications. (Prerequisites: 413-142 Introduction to Electrical Substations; 413-307 Electrical Theory and Safety 1; 413-317 Electrical Theory and Safety 2; 804-363 Algebraic Applications for Electrical Trades or equivalent)

413-146 Substation Testing and Diagnostics - 3 Crs. Takes the student through the basic to the more complex testing procedures used for condition assessment and commissioning of electrical substation equipment. Students perform a power transformer inspection and perform a turn's ratio and core ground test. Covers dissolved gas analysis of insulating oil along with proper oil sampling techniques. Examines the principles of infrared testing as it applies to electrical equipment. Explores power factor testing of substation equipment. Covers circuit breaker timing and contact resistance testing along with sulfur hexafluoride properties and testing. Examines partial discharge testing and vibration applications for power equipment. (Prerequisites: 413-142 Introduction to Electrical Substations; 413-144 Substation Control and System Protection; 413-307 Electrical Theory and Safety 1; 413-317 Electrical Theory and Safety 2; 804-363 Algebraic Applications for Electrical Trades or equivalent)

413-191 Industrial Electrical Safety and Maintenance - 2 Crs. Explores electrical theory and safety as it relates to maintenance, repair and troubleshooting of equipment found in an industrial/commercial setting. Topics include basic electrical theory, safety, symbols, test equipment, motor controls and electrical circuits. Knowledge of electrical concepts helpful.

413-307 Electrical Theory and Safety 1 - 3 Crs. Introduces students to basic electrical theory involving alternating and direct current circuits. Students will determine unknown electrical quantities in single-phase electrical circuit schematics. Must be an Electrical Power Distribution program student. (Corequisites: 413-309 Line Technician 1; 413-310 Line Technician 2)

413-309 Line Technician 1 - 5 Crs. Provides practical hands-on training, modeling first-year apprentice employment. Introduces pole climbing techniques. Covers safety policies/procedures and PPE. Provides hands-on experience in the design and construction of single-phase power distribution systems. Introduces operation of digger-derrick trucks and bucket trucks. Must be an Electrical Power Distribution program student. (Corequisites: 413-307 Electrical Theory and Safety 1; 413-310 Line Technician 2)

413-310 Line Technician 2 - 5 Crs. Provides practical hands-on training, modeling second-year apprentice employment. Provides hands-on experience in maintaining and constructing of single-phase electrical power systems, concentrating on primarily 600-volt and below utility work. Transformer settings will be constructed and designed. Grounding for personal protection will be performed. Must be an Electrical Power Distribution program student. (Prerequisites: Completion of or concurrent enrollment in 103-159 Computer Literacy - Microsoft Office; 890-101 College 101. Corequisites: 413-307 Electrical Theory and Safety 1; 413-309 Line Technician 1)

413-311 Line Technician 3 - 5 Crs. Provides practical hands-on training, modeling third-year apprentice employment. Provides hands-on experience in maintaining and constructing of three-phase electrical power systems, bringing together the equipment that make up a distribution system from the substation to the customer. Three-phase lines will be constructed and retired. Grounding for personal protection and rescue procedures will be performed. Must be an Electrical Power Distribution program student. (Prerequisites: 413-309 Line Technician 1; 413-310 Line Technician 2. Corequisites: 413-312 Line Technician 4; 413-317 Electrical Theory and Safety 2)

413-312 Line Technician 4 - 5 Crs. Provides practical hands-on training, modeling fourth-year apprentice employment. Provides hands-on experience in maintaining and constructing of transmission electrical systems. Three-phase banking principles and URD systems will be focused on. Students will bring together the entire electrical system from generation to the customer. Exit assessment, a college requirement will be performed. (Prerequisites: 413-309 Line Technician 1; 413-310 Line Technician 2.

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Corequisites: 413-311 Line Technician 3; 413-317 Electrical Theory and Safety 2)

413-317 Electrical Theory and Safety 2 - 3 Crs. Introduces students to advanced electrical theory involving alternating and direct current circuits. Students determine unknown electrical quantities in multi-phase electrical circuits. Must be an Electrical Power Distribution program student. (Prerequisites: 413-307 Electrical Theory and Safety 1; 413-309 Line Technician 1; 413-310 Line Technician 2. Corequisites: 413-311 Line Technician 3; 413-312 Line Technician 4)

413-326 Introduction to PLC - 1 Cr. Studies the theory of operation, applications, installation, programming techniques, interfacing and troubleshooting of programmable controllers for industry. Programming instructions include internal relays, timers, counter, math functions and relations.

413-327 Advanced PLC - 1 Cr. Applies basic concepts of PLC operations, applications, programming, interfacing and troubleshooting as they relate to complex PLC applications. (Prerequisite: Previous experience with PLCs and dean consent or completion of 413-326 Introduction to PLC)

413-350 Beginning Electrical Concepts - 2 Crs. Provides an overview of the electrical industry with an emphasis on fundamental electrical theory. Basic electricity is explored through concepts of DC electricity. Focuses on the electronic theory, voltage, amperage, resistance, Ohm's law and series/parallel circuits. Must be an Electricity program student. (Prerequisite: Completion of or concurrent enrollment in 804-360 Occupational Mathematics 1)

413-351 Advanced Electrical Concepts - 2 Crs. This course is a continuation of 413-350 Beginning Electrical Concepts. Provides AC theory, inductance, capacitance and series-parallel circuits, single- and three-phase motors, transformers and circuits. Must be an Electricity program student. (Prerequisites: 413-350 Beginning Electrical Concepts. Completion of or concurrent enrollment in 804-113 College Technical Mathematics 1A)

413-355 Residential and Commercial Wiring Concepts - 3 Crs. Develops the skills and concepts necessary for planning and installing electrical equipment in residential and commercial occupancies. Students explore the uses of raceways, conductors, boxes and power distribution equipment in residential and commercial work. Must be an Electricity program student. (Prerequisites: Completion of or concurrent enrollment in 413-361 Intermediate National Electrical Code; 413-363 OSHA Safety Construction Trades)

413-360 Introduction to National Electrical Code - 2 Crs. Provides an introduction to the uses and applications of the state and national electrical codes. Students examine standard definitions, enforcement issues and the code-making cycle. Focuses on electrical installations to determine compliance with the state and national electrical codes. Must be an Electricity program student.

413-361 Intermediate National Electrical Code - 2 Crs. Examines standards and procedures used by electricians in determining requirements for electrical installations. Focuses on the process of how the code is used in making decisions and how different occupancies, such as residential, commercial or industrial, affect the electrical installation process. Must be an Electricity program student. (Prerequisite: Completion of or concurrent enrollment in 413-360 Introduction to National Electrical Code)

413-363 OSHA Safety Construction Trades - 1 Cr. Introduces OSHA policies, procedures and standards as well as construction safety issues. Emphasizes using the OSHA regulations as a guide to working safely on various construction sites and in recognizing potential hazards. Upon successful completion, the student will receive an OSHA construction safety and health 10-hour course card. Must be an Electricity program student.

413-365 Basic Motor Controls - 3 Crs. Continues the investigation of industrial electricity by introducing more complex theory and techniques. Focuses on timers, control devices, motors and PLCs. Students design control circuits, program PLCs and wire complex control circuits. Must be an Electricity program student. (Prerequisite: Completion of or concurrent enrollment in 413-380 Industrial Wiring Concepts)

413-368 Level 2 NEC - 1 Cr. Investigates current regulations defined in the current National Electrical Code (NEC). Students will apply regulations to various work-related conditions.

413-369 Electrical Maintenance and Troubleshooting - 1 Cr. Introduces the maintenance and troubleshooting practices related to electrical systems and devices common to residential applications. Students utilize electrical test equipment to evaluate system status and practice safe system maintenance and repair.

413-370 Construction Trades Blueprint Reading - 2 Crs. Develops skills in interpreting construction blueprints by categorizing elements of plans by view, size, shape and symbol. Focuses on the essential elements of residential and commercial plans. Students integrate basic blueprint reading skills with the construction process. Must be an Electricity program student. (Prerequisite: Completion of or concurrent enrollment in 413-360 Introduction to National Electrical Code)

413-371 Electrical Estimating for Construction Trades - 1 Cr. Investigate construction blueprints and perform material, equipment and labor takeoffs to determine project costs. Students work mainly in a manual take-off mode. Students are required to have previous blueprint reading experience.

413-372 Industrial Electrical Code - 1 Cr. Investigates the current National Electrical Code as it relates to industrial and commercial facilities and construction. Suggested for maintenance and repair technicians as well as plant electricians.

413-373 Level 1 NEC - 1 Cr. Investigates the current National Electrical Code. Students will learn to move through the Code Book identifying various topics and sections. Emphasis is on applying basic applications, not for continuing education units.

413-374 Advanced NEC - Construction Trade Apprentices - 1 Cr. In-depth investigation of the current national electrical code applying real-life field applications. An in-depth analysis of specific code regulations, not for continuing education units. Previous Code training required.

413-375 Basic Electrical Blueprint Reading for Construction Trades - 1 Cr. Introduces the basic elements of construction blueprint reading with major emphasis on interpretation of electrical design and components.

413-380 Industrial Wiring Concepts - 3 Crs. Introduces the features and functions of electrical equipment in an industrial setting. Students build the skills required to interpret line diagrams and use them to wire control circuits. Emphasizes control circuits most commonly found in a manufacturing setting. Must be an Electricity program student or have dean approval.

413-381 Building Trades National Electric Code - 2 Crs. Continues more in-depth investigation of the National Electrical Code as it relates to the building trades. Emphasizes code application as it relates to various building practices. Previous NEC experience is suggested.

413-383 NEC Update Review - 1 Cr. Investigates the current electrical code through classroom review. Identifies changes to the current code. Consult with your instructor for CEU credit.

413-385 Electrical Fabrication - 2 Crs. Introduces the methods and practices used to build supports for electrical equipment and apparatus. Methods for mounting electrical equipment, supports and related devices to various surfaces are examined through the use of fastening systems and hardware. Must be an Electricity program student. (Prerequisite: 413-355 Residential and Commercial Wiring Concepts)

413-386 Trends in Electricity - 1 Cr. Explores current trends and recent developments in residential and commercial electricity. Trends change based on current events within the industry. Students focus on code, enforcement issues, new materials, equipment and techniques surrounding the new developments. Students apply their learning in hands-on activities. Must be an Electricity program student. (Prerequisites: 103-159 Computer Literacy - Microsoft Office; 413-361 Intermediate National Electrical Code; 890-101 College 101)

413-390 Industrial Electricity 1 - 2 Crs. Focuses on fundamental principles of electricity, DC and AC motors, reading electrical diagrams, and identifying electric symbols and components. Students operate basic electrical test equipment. Emphasizes troubleshooting and electrical safety.

413-392 Journeyman Electrical Test Review - 1 Cr. Provides students with up-to-date code and theoretical information in preparation for completion of the journeyman exam.

413-393 Journeyman/Masters Electrical Test Review - 1 Cr. Provides students with code and theory in preparation for the state journeyman or masters electrical exam. This course is approved for 36 hours of state CEUs. Consult your instructor at the start of the class for CEU verification.

413-394 Basic Programmable Logic Controls - 2 Crs. Studies the theory of operation, applications, installation, programming techniques, interfacing and troubleshooting of programmable controllers for industry. Programming instructions include internal relays, timers, counters, math functions and relations.

413-395 Masters Electrical Test Review Online - 1 Cr. Provides students with code and theory information in preparation for completion of the journeyman exam in an online format.

413-405 Electrical Code Update - .60 Cr. Examines national and state electrical codes using the National Electrical Code book. Covers residential, commercial, manufacturing and inspection application; construction installation; motor application services; and review of sample state certification exam. This course is approved for CEU training.

413-420 Photo Voltaic (Solar) Systems and Operations - 1 Cr. Examines photo voltaic systems including how photo voltaic systems work, their components, setup, sizing, wiring, location, NEC requirements, utility interconnections, maintenance, troubleshooting, safety and commissioning.

413-500 OSHA 10 - .5 Cr. Introduces OSHA policies, procedures and standards. Emphasizes OSHA regulations as a guide to working safely

on various construction sites and in recognizing potential hazards. Satisfies the 10-hour OSHA safety requirement for the 1926 Construction Industry Code.

413-540 ABC Construction Electrician 1 - 2 Crs. Introduces students to electrical safety with a special emphasis on OSHA requirements, National Electrical Code, blueprint reading, residential wiring, hand-bending of conduit and DC electrical theory. Must be a state-contracted apprentice to enroll in this course.

413-541 ABC Construction Electrician 2 - 2 Crs. Continues the studies of electrical safety with a special emphasis on OSHA requirements, National Electrical Code, blueprint reading, residential wiring, hand-bending of conduit and DC electrical theory. Must be a state-contracted apprentice to enroll in this course. (Prerequisite: 413-540 ABC Construction Electrician 1)

413-542 ABC Construction Electrician 3 - 2 Crs. Introduces AC voltage: how it applies to magnetism; electrical symbols; line diagrams; current design and protection of circuits, motor controls, capacitance and inductive circuits, transformers, blueprints, and RC and RL time constants. Students continue studies in Safety and National Electrical Code with emphasis on grounding, over-current protection and box fill. Must be a state-contracted apprentice to enroll in this course. (Prerequisite: 413-541 ABC Construction Electrician 2)

413-543 ABC Construction Electrician 4 - 2 Crs. Continues the study of AC voltage: how it applies to magnetism; electrical symbols; line diagrams; current design and protection of circuits, motor controls, capacitance and inductive circuits, transformers, blueprints, and RC and RL time constants. Students continue studies in Safety and National Electrical Code with emphasis on grounding, over-current protection and box fill. Must be a state-contracted apprentice to enroll in this course. (Prerequisite: 413-542 ABC Construction Electrician 3)

413-544 ABC Construction Electrician 5 - 2 Crs. Challenges students into deeper studies in the National Electrical Code, introducing load calculations, conductor selection, motor calculations and HVAC systems. Continues

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to stress the requirements of safety on the job site through material provided by ABC. Must be a state-contracted apprentice to enroll in this course. (Prerequisite: 413-543 ABC Construction Electrician 4)

413-545 ABC Construction Electrician 6 - 2 Crs. Continues investigations in the National Electrical Code, introducing load calculations, conductor selection, motor calculations and HVAC systems. Stresses the requirements of safety on the job site through material provided by ABC. Must be a state-contracted apprentice to enroll in this course. (Prerequisite: 413-544 ABC Construction Electrician 5)

413-546 ABC Construction Electrician 7 - 2 Crs. Examines the areas of high voltage; advanced controls; and practical applications of lighting, fire alarm systems, heat trace and freeze protection paralleling National Electrical Code requirements in these areas with practical applications of installation through text and lab. Students focus on job site safety with OSHA standards. Must be a state-contracted apprentice to enroll in this course. (Prerequisite: 413-545 ABC Construction Electrician 6)

413-547 ABC Construction Electrician 8 - 2 Crs. Continues examining the areas of high voltage; advanced controls; and practical applications of lighting, fire alarm systems, heat trace and freeze protection paralleling National Electrical Code requirements in these areas with practical applications of installation through text and lab. Students focus on job site safety with OSHA standards. Must be a state-contracted apprentice to enroll in this course. (Prerequisite: 413-546 ABC Construction Electrician 7)

413-548 ABC Construction Electrician 9 - 2 Crs. Challenges students to test their ability to reference the National Electrical Code to prepare for the state journeyman exam. Introduces voice, data and video cabling. Compares motor control systems such as relay logic and PLC logic with practical applications. Must be a state-contracted apprentice to enroll in this course. (Prerequisite: 413-547 ABC Construction Electrician 8)

413-549 ABC Construction Electrician 10 - 2 Crs. Expands student knowledge through in-depth examination of the National Electrical

Code to prepare for the state journeyman exam. Introduces voice, data and video cabling. Compares motor control systems such as relay logic and PLC logic with practical applications. Must be a state-contracted apprentice to enroll in this course. (Prerequisite: 413-548 ABC Construction Electrician 9)

420-520 Mold Making - 1 Cr. Introduces Tool and Die Making apprentices to mold making. Explores construction principles, processes and basic molding applications. Emphasizes plastic injection molding. Must be a state-contracted apprentice to enroll in this course.

420-561 Jigs and Fixtures - .5 Cr. Introduces basic theory and skills of jig and fixture making. Must be a state-contracted apprentice to enroll in this course.

420-563 Machine Technology - 1 Cr. Includes principles and nomenclature of the tool and die industry. Emphasizes terminology, function and operation of basic machine tools. Covers measuring tools and layout tools used in tool making. Must be a state-contracted apprentice to enroll in this course.

420-565 Computer Numerical Control - 1.5 Crs. Introduces manual Fanuc-Haas programming controlling a three-axis machining center. Students receive a solid background in numerical control theory such as axis designation, measuring and location systems, formats, advantages and disadvantages of NC and CNC. Students work with tape format reading, tape preparation and disk storage, and they write several programs using computers, the CNC machines and tape to produce the part. Must be a state-contracted apprentice to enroll in this course.

420-571 Sinker/Wire EDM - 1.5 Crs. Introduces students to operation of EDM wire metal cutting machines. Students learn basic machine components as well as layout, maintenance, calibration and programming. Must be a state-contracted apprentice to enroll in this course.

420-572 3D CAD - 1.5 Crs. Introduces basic SolidWorks parametric-based solid modeling techniques. Exercises will include creating and editing solid parts, assemblies and drawings. Top-down and bottom-up designing techniques

will be applied to product design, sheet metal and mold tooling exercises. Exploded views, bill of materials, animations, finite element analysis and configurations will be created. Explores file conversions to and from Pro-Engineer, Unigraphics and AutoCAD software. Must be a state-contracted apprentice to enroll in this course.

420-579 Introduction to Computer-Aided Manufacturing - 1 Cr. Incorporates computer-aided manufacturing skills in the construction of geometry, developing a tool path, post processing, and basic dimensioning. Previous blueprint reading and computer numerical control programming is very helpful. Must be a state-contracted apprentice to enroll in this course.

420-580 2D CAD - 1 Cr. Introduces students to computer-aided drafting (CAD) using the latest AutoCAD software. Students develop skills in drawing setup and organization, as well as drawing and editing objects. Students create complex shapes, add dimensions and text, utilize display and layer controls, implement symbols, and plot drawings. No computer experience required, but a background in fundamental blueprint reading and/or drafting skills is recommended. Must be a state-contracted apprentice to enroll in this course.

420-586 Die Making - 1 Cr. Studies stamping die technology including piercing, blanking, bending and compound dies. Must be a state-contracted apprentice to enroll in this course.

421-331 Welding Print Reading - 2 Crs. Gives production welders a basic knowledge about the interpretation of drawings and manuals of the sort most frequently encountered in industry. Includes arrangement of views, dimensions and notes, sections, shop sketching, welding symbols, and various welding prints used in the immediate area.

421-555 Blueprint Reading - 1 Cr. Covers the basics of blueprint reading for the tool and die trade. Emphasizes the student's understanding of orthographic projection, pictorial drawings dimensioning, tolerancing, sectioning, thread representation and sketching. Must be a state-contracted apprentice to enroll in this course.

422-505 Metallurgy - 1 Cr. Introduces students to the principles and processes of Metallurgy.

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Students are exposed to the manufacture of iron and steel, alloying elements, material properties, heat treating, quenching, and tempering for both ferrous and nonferrous metals and alloys. Both destructive and nondestructive testing of metal products are introduced. Must be a state-contracted apprentice to enroll in this course.

435-578 Isometric for Building Trades - .9 Cr.

Introduces the concepts of three-dimensional drawing as it relates to plan views and hidden lines. Students develop the ability to interpret and draw isometric objects and plan views from isometric drawings.

439-301 Introduction to Basic Machining - 1 Cr.

Examines machine tool operation as it applies to today's manufacturing environment. Introduces students to milling machines, lathes, grinders, saws and drill presses. Basic layout and inspection practices, hand tools and job organization used in industry will be outlined. Machine types, components, operations, tooling, machining applications and workholding applications are discussed with an emphasis on safety. Coordinate measuring machines are introduced. Students learn about different materials, machinability and cutting tool terminology. Students must possess fundamental computer skills and have experience with Windows Operating System.

439-303 Basic Machining - Milling - 2 Crs.

Introduces basic machining operations on a manual vertical milling machine. Includes using basic hand tools, part layout, part inspection, bench work, safety and job organization. Basic milling machine setup, controls, tooling, workholding and general operational guidelines will be demonstrated. (Prerequisite: Completion of or concurrent enrollment in 439-301 Introduction to Basic Machining)

439-305 Basic Machining - Drilling and Grinding - 2 Crs.

Introduces students to the basic drilling operations on the drill press which includes drilling, counterboring, countersinking, reaming and tapping. Basic setup along with safety practices are emphasized. Introduces students to the basics of grinding. General maintenance of the surface grinding machine along with wheel mounting and workholding are covered. Students learn a variety of methods for squaring blocks, grinding slots

and angular surfaces. (Prerequisites: 439-301 Introduction to Basic Machining; 439-303 Basic Machining - Milling)

439-306 Basic Machining - Turning - 2 Crs.

Introduces basic instruction for turning operations on a lathe. Emphasis will be given on lathe setup, controls, tooling, workholding, safety and general operational guidelines. Students learn about different materials, machinability and cutting tool terminology. (Prerequisite: 439-301 Introduction to Basic Machining)

439-324 Pierce and Die Making - 3 Crs.

Introduces basic die making principles and theory to provide a basis for the construction of a pierce and blank die. Students build, assemble and run a stamping die using various tool room equipment including milling machines, surface grinders and CNC lathes. (Prerequisites: 439-305 Basic Machining - Drilling and Grinding; 439-306 Basic Machining - Turning; 444-342 Advanced CAM 2D; 444-365 CNC Machining Center Operation)

439-329 Compound Die Making - 3 Crs.

Focuses on the theory behind the construction of compound and progressive dies. Exposes students to team building and problem-solving strategies used in industry. Provides hands-on experience in the construction of a compound and a progressive die. Students develop skills using various tool room equipment including milling machines, surface grinders, CNC mills, and wire and conventional EDM machines. CNC software is used to construct tool paths needed to machine certain parts of the die. Students work in a group environment to construct the progressive die and use communication skills to work out problems that may arise. (Prerequisite: 439-324 Pierce and Die Making)

439-334 Single-Cavity Mold Making - 3 Crs.

Introduces students to fundamental theory of single-cavity mold making construction. Explores basic construction principles, molding processes and molding terminology. Students will develop skills using various tool room equipment including milling machines, surface grinders, CNC mills, and wire and conventional EDM machines. CNC software is used to construct tool paths needed to machine molding components. Emphasis is on plastic injection molding. Exposes students to team building and problem-solving strategies used in industry.

(Prerequisites: 439-305 Basic Machining - Drilling and Grinding; 439-306 Basic Machining - Turning)

439-339 Multi-Cavity Mold Making - 3 Crs.

Focuses on the theory of multi-cavity mold making construction. Students will develop skills using various tool room equipment including milling machines, surface grinders, CNC machining centers, and wire and conventional EDM machines. CNC software is used to construct tool paths needed to machine molding components. Emphasis is placed on plastic injection molding. Exposes students to team building and problem-solving strategies used in industry. (Prerequisite: 439-334 Single-Cavity Mold Making)

439-399 2-D AutoCAD Mold and Die Print Reading - 2 Crs.

Emphasizes the fundamentals of mold and die print reading for the tool and die making industry. Reviews basics of measuring systems and methods. Emphasizes orthographic and visual perception of drawings. Stresses areas of dimensioning, tolerancing, detail and assembly drawings. Introduces AutoCAD 2D and its applications in producing two-dimensional prints. Students will use AutoCAD to reproduce part drawings used in industry.

442-101 Welding for Auto Technicians - 1 Cr.

Students acquire skills to safely set up and perform various welding and cutting processes including Shielded Metal Arc Welding (SMAW), Gas Metal Arc Welding (GMAW), Gas Tungsten Arc Welding (GTAW), oxyacetylene welding and cutting, and plasma cutting. Students will learn to produce quality welding and cutting in all positions on thick to thin materials. This course is designed for Automotive Technician students. Skill development emphasis is on Gas Metal Arc Welding and oxyacetylene welding and cutting techniques which are utilized in the automotive service and repair industry.

442-109 Welding for Fabricators - 4 Crs.

Provides skill in oxy-fuel cuttings, Shielded Metal Arc Welding (SMAW), Gas Metal Arc Welding (GMAW), Flux Cored Arc Welding (FCAW) and Gas Tungsten Arc Welding (GTAW) in flat and horizontal positions. Students apply safe welding standards to a variety of industrial applications on different types of metals in a lab setting. (Prerequisites: Completion of or concurrent enrollment in 103-159

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Computer Literacy - Microsoft Office; 890-101 College 101)

442-120 Robotic Welding - 3 Crs. Emphasizes the application of welding automation in a production manufacturing environment. Focuses on automation safety, coordinate motion, creating and editing programs, creating tool center-points, and preventative maintenance. Provides hands-on experience with creating teach pendant programs. (Prerequisite: 442-109 Welding for Fabricators or 442-308 Introduction to Welding Process, Part B or 442-309 Introduction to Welding Processes)

442-302 Introduction to Welding Processes 1 - 2 Crs. Introduces students to welding safety and setup procedures appropriate to a welding shop environment. Students develop skills in designing joints, analyzing various welding processes and their applications on carbon, stainless steel and aluminum. Focuses on the welding processes of Gas Metal Arc Welding (GMAW) and Gas Tungsten Arc Welding (GTAW). Articulates with the one-year Welding Diploma program.

442-304 Weld Certification Preparation - 1 Cr. Provides information about welding certification with opportunity to practice welding techniques and metal preparation needed for welding certification tests. Learn welding codes and their requirements such as: ASW D1.1, ASME Section IX, D1.3, and API 1104. Learn what tests are required to satisfy the codes, and what needs to be in place to maintain company certifications.

442-307 Introduction to Welding Process, Part A - 2 Crs. Provides skill in oxy-fuel cutting and Shielded Metal Arc Welding (SMAW) in the flat and horizontal positions. Students apply safe welding standards to a variety of industrial applications on mild steel in a lab setting.

442-308 Introduction to Welding Process, Part B - 2 Crs. Provides skill in Gas Metal Arc Welding (GMAW), Flux Cored Arc Welding (FCAW) and Gas Tungsten Arc Welding (GTAW) in the flat and horizontal positions. Students apply safe welding standards to a variety of industrial applications on mild steel, stainless steel and aluminum in a lab setting. (Prerequisite: 442-307 Introduction to Welding Process, Part A)

442-309 Introduction to Welding Processes - 4 Crs. Provides skill in oxy-fuel cuttings, Shielded Metal Arc Welding (SMAW), Gas Metal Arc Welding (GMAW), Flux Cored Arc Welding (FCAW) and Gas Tungsten Arc Welding (GTAW) in flat and horizontal positions. Students apply safe welding standards to a variety of industrial applications on different types of metals in a lab setting. Restricted to Welding, Metal Fabrication or Fabrication Technologies program students only. (Prerequisites: Completion of or concurrent enrollment in 103-159 Computer Literacy - Microsoft Office; 804-360 Occupational Mathematics 1; 890-101 College 101)

442-310 Shielded and Gas Metal Arc Welding (SMAW/GMAW) - 4 Crs. Provides skills using Gas Metal Arc Welding (GMAW) and Shielded Metal Arc Welding (SMAW) processes in all positions. Students use welding skills in a variety of industrial applications on carbon. Students perform welding operations in a lab setting. Restricted to Welding program students only. (Prerequisite: 442-315 Gas Tungsten Arc Welding)

442-313 General Welding - 2 Crs. Develops skills in oxy-fuel welding and cutting, shielded metal arc welding, gas metal arc welding, gas tungsten arc welding and plasma cutting. Students practice safety precautions in handling, setup, maintenance and use of welding equipment while welding on steel, stainless steel and aluminum.

442-314 Basic Welding 1 - 1 Cr. Acquire a brief overview of the welding processes most widely used that include oxy-fuel, gas metal arc welding, shielded metal arc welding and gas tungsten arc welding processes.

442-315 Gas Tungsten Arc Welding - 4 Crs. Provides advanced GTAW skills that build upon the basic skills learned previously. Students will be welding on stainless steel and aluminum. Welding operations are performed in a lab setting applying a variety of industrial applications of out of position welding on plate and pipe. (Prerequisites: Completion of or concurrent enrollment in 103-159 Computer Literacy - Microsoft Office; 442-307 Introduction to Welding Processes, Part A and 442-308 Introduction to Welding Processes, Part B or

442-309 Introduction to Welding Processes; 804-360 Occupational Mathematics 1; 890-101 College 101)

442-316 Advanced Welding Techniques - 4 Crs. Focuses on maintaining safety skills appropriate to a welding shop environment. Builds on skills acquired in prerequisite courses. Students perform welding operations on carbon steel, stainless steel and aluminum in practical, real-world situations. Introduces welding codes; welds are performed according to code criteria, with the option of being certified. (Prerequisite: 442-315 Gas Tungsten Arc Welding)

442-317 Basic Welding 2 - 1 Cr. Advance the skills learned in 442-314 Basic Welding 1. Learn more about oxyfuel, gas metal arc welding, shielded metal arc welding and gas tungsten arc welding. Students may receive an in-depth focus on one specific process. (Prerequisite: 442-314 Basic Welding 1)

442-322 Welding for Apprentices - .05-1 Cr. Introduces students to welding safety and setup as it relates to a construction setting. Develops skills in oxy-fuel welding and cutting, arc and wire welding.

442-331 Welding Print Reading - 2 Crs. Gives production welders a basic knowledge about the interpretation of drawings and manuals of the sort most frequently encountered in industry. Includes arrangement of views, dimensions and notes, sections, shop sketching, welding symbols, and various welding prints used in the immediate area. Recommend completion of 103-159 Computer Literacy - Microsoft Office; 890-101 College 101

444-302 CNC Controls - 2 Crs. Introduces CNC control applications, functions and features. Emphasizes creating, editing, saving and retrieving CNC programs across a variety of communication platforms and controls. Students will learn MDI (Manual Data Input) functions, tool and work piece data settings. Proper program formatting and execution of programs in auto mode as well as DNC will be performed. It is recommended that students complete 103-189 Microsoft Windows or 103-159 Computer Literacy - Microsoft Office before enrolling in this course.

444-310 Material Selection - 1 Cr. Provides skill in determining the physical, mechanical and chemical properties of materials needed for specific applications in the manufacturing environment. Explains the process for manufacturing of tool steels and their alloys. Covers the heat treat processing of steel while examining the basic principles of metallurgy. (Prerequisite: 890-101 College 101)

444-311 Tooling and Workholding - 2 Crs. Introduces tooling and workholding applications as it applies to the manufacturing process. Focuses on the selection of tooling and workholding for end use application. Areas of study are general use tooling, tooling specific to end application, open setup fixturing, hard tooling fixtures and soft jaw machining. Emphasizes efficiency and waste elimination will be studied.

444-312 Product Engineering - Lean Manufacturing - 1 Cr. Applies the principles of lean manufacturing for continuous improvement to the manufacturing setting. Students explore standardized work, workplace organization, visual controls, setup reduction, batch size reduction, point-of-use storage, quality at the source, workforce practices, and pull systems. This course is restricted to CNC Tool and Die Technologies program students. It is recommended that 444-313 Product Manufacturing be taken the semester after completing this course.

444-313 Product Manufacturing - 2 Crs. Students will simulate a manufacturing environment by producing a product. Emphasizes implementation of a project plan, teamwork, problem solving and decision making. This course is restricted to CNC Tool and Die Technologies program students. It is recommended that this course be taken the semester after completing 444-312 Product Engineering - Lean Manufacturing. (Prerequisite: 444-312 Product Engineering - Lean Manufacturing)

444-333 Basics of Metrology - 1 Cr. Introduces dimensional metrology with online exposure to various measurement techniques. Provides student with skills and knowledge of vernier calipers, dial calipers, depth micrometers, outside micrometers with both inch and metric scales, indicators, telescoping gages, sine bars, optical comparators, gage blocks, instruments for surface analysis, and coordinate measuring machines. Some concepts of geometric gaging

and tolerancing are also developed as part of the coursework. (Prerequisite: 103-159 Computer Literacy - Microsoft Office)

444-340 Beginning CAM - Mastercam - 2 Crs. Introduces students to the advanced dimensional (2-D) Computer-Aided Machining (CAM) utilizing Mastercam software. Students run CAM software on a computer to generate a 2-D CNC program. Students develop skills in the generation of 2-D geometry; generation of 2-D toolpath; CNC machine code generation; programming, editing and manipulation; speed and feed calculation; and optimization of programs for maximum efficiency. Working knowledge of CNC programming language is desired. (Prerequisite: 444-350 Basic Programming)

444-342 Advanced CAM 2-D - 2 Crs. Applies advanced techniques to 2-D CAM such as feature recognition, multiple parts and offsets, and the creation of tool and material libraries. Selection of tooling and machining parameters for end use will be emphasized. (Prerequisites: 103-159 Computer Literacy - Microsoft Office; 444-340 Beginning CAM - Mastercam)

444-343 Beginning CAM 3-D - 2 Crs. Demonstrates the methods of machining 3-D geometry. Students apply cutting methods using various CAM software to machine desired parts. Students generate tool paths and analyze the posting. (Prerequisite: 444-342 Advanced CAM 2-D)

444-344 Advanced CAM 3-D - 2 Crs. Introduces advanced multi-surface machining applications in CAM environment. Emphasizes proper multi-surface machining techniques including tooling selection, piece-part workholding, proper cutting speeds and feeds and process flow. Four- and five-axis techniques and concepts will be explored. A working knowledge of CNC language is helpful but not required. (Prerequisite: 444-343 Beginning CAM 3-D)

444-346 Design for 3-D Machining - 2 Crs. Demonstrates the methods of constructing 3-D geometry to be used for generating tool path. Students create geometry, create surfaces and analyze surfaces for dimensional accuracy and usability. Students create tool path and a machined part. Experience with 2-D desirable. Course is designed for the 2011-12 CNC/Tool and Die curriculum. (Prerequisite: 103-159 Computer Literacy - Microsoft Office)

444-350 Basic Programming - 3 Crs. Exposes manufacturing students to the field of manual programming of Computer Numerical Control (CNC) machine tools. Studies types of CNC controls, machinery, programming formats and basic terminology. Applies programming technique, print interpretation, applied math, computer skills and measuring techniques. (Prerequisite: Completion of or concurrent enrollment in 103-159 Computer Literacy - Microsoft Office)

444-355 CNC Machining Center Programming - 2 Crs. Exposes the manufacturing students to advanced manual programming of machining centers. Types of CNC controls, machinery, programming formats and basic terminology will be studied. Advanced programming techniques, print interpretation, applied math, computer skills and measuring techniques will be applied. Working knowledge of CNC programming and CAM is helpful. (Prerequisite: 444-350 Basic Programming)

444-365 CNC Machining Center Operation - 2 Crs. Develops an understanding of the complete operation of a three-dimensional machining center. Includes setup, fixturing, operation and troubleshooting of the program. (Prerequisite: 444-355 CNC Machining Center Programming)

444-375 Turning Center Operation - 2 Crs. Exposes the manufacturing students to the field of turning center operation. Types of CNC communication, programming formats and basic terminology will be studied. Programming technique, print interpretation, applied math, computer skills and measuring techniques will be applied. (Prerequisite: 444-385 Turning Center Programming)

444-385 Turning Center Programming - 2 Crs. Applies the knowledge received in Computer-Aided Machining 2-D and Computer-Aided Machining 3-D to a practical application on a turning center and CNC chucker. Covers direct computer control, editing, and speed and feed control overwrite. Working knowledge of CNC programming and CAM desirable. (Prerequisite: 444-350 Basic Programming)

444-386 Advanced Machining Center - 2 Crs. Introduces advanced machining center appli-

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cations in the manufacturing environment. Emphasizes proper cutting speeds and feeds, and process flow is applied. Advanced control features such as scaling, mirror imaging, local coordinate setting, offset pre-setting, background editing and parametric family-of-parts programming will be explored. Multi-side “tombstone” and pallet changing methods will be explored. (Prerequisite: 444-355 CNC Machining Center Programming)

444-391 Coordinate Measuring Machine - 3 Crs. Introduces Brown and Sharpe Programmable CMM with PC-DMIS inspection software. Students receive hands-on exposure to Coordinate Measuring Machine programming techniques. Students will conduct laboratory experiments using the Coordinate Measuring Machine. (Prerequisites: 439-399 2-D AutoCAD Mold and Die Print Reading; 804-361 Occupational Math 2)

444-394 Advanced Turning Center - 2 Crs. Introduces advanced turning center applications in the manufacturing environment. Emphasizes proper cutting speeds and feeds and process flow is applied. Advanced control features such as automated stock feeding, live tooling and “C” axis contouring, background editing and parametric family-of-parts programming will be explored. (Prerequisite: 444-385 Turning Center Programming)

455-455 Transition to Trainer, Your Role as a Journeyworker - .2 Cr. Introduces students to the tools of a job-site trainer. Students explore the role of a journeyworker/trainer, discover how to deliver hands-on training, and examine the process for giving useful feedback. Designed for completing apprentices.

457-110 Integrated Manufacturing Planning - Fabrication Technologies - 2 Crs. Students complete a project from concept to the point where a product is designed and its manufacturing process is planned. Emphasizes the project management process, teamwork, problem solving and decision making. It is suggested that the student take 457-111 Integrated Manufacturing Production - Fabrication Technologies in the semester after this course. (Prerequisites: 457-146 Advanced Fabrication Techniques; 457-147 Metallurgy; 457-148 Metal Cutting and Forming Processes)

457-111 Integrated Manufacturing Production - Fabrication Technologies - 2 Crs. Students will simulate a manufacturing environment by building a work cell, producing a product and performing quality assurance checks. Emphasizes implementation of a project plan, teamwork, problem solving and decision making. (Prerequisite: 457-110 Integrated Manufacturing Planning - Fabrication Technologies)

457-145 Fabrication Techniques - 4 Crs. Focuses on development of layout and fabrication skills through a sequence of exercises and a final project. Students use equipment including a CNC shear, CNC press brake and CNC cutting table. Student project may incur additional fees. (Prerequisites: Completion of or concurrent enrollment in 442-109 Welding for Fabricators; 623-110 Technical Print Reading)

457-146 Advanced Fabrication Techniques - 4 Crs. Enhances metal fabrication skills and techniques by developing fixtures, programming CNC press brakes and lasers, and finishing while making a variety of projects. (Prerequisites: 457-145 Fabrication Techniques or 457-345 Metal Fabrication. Completion of or concurrent enrollment in 457-148 Metal Cutting and Forming Processes)

457-147 Metallurgy - 2 Crs. Provides instruction and information on the basic principles of metals. Explores the behavior of metals and the processes which affect them. Explores the most common metals used in industrial processes.

457-148 Metal Cutting and Forming Processes - 3 Crs. - Develops knowledge of plasma, laser and water jet cutting systems and forming processes. Safety and maintenance are emphasized as students practice cutting techniques on projects. (Prerequisites: Completion of or concurrent enrollment in 442-331 Welding Print Reading or 623-110 Technical Print Reading; 804-113 College Technical Mathematics 1A)

457-345 Metal Fabrication - 4 Crs. Focuses on development of layout and fabrication skills through a sequence of exercises and a final project. Students use equipment including a CNC shear, CNC press brake and CNC cutting table. (Prerequisites: Completion of or concurrent enrollment in 103-159 Computer

Literacy - Microsoft Office; 442-309 Introduction to Welding Processes; 442-331 Welding Print Reading; 804-360 Occupational Mathematics 1)

482-101 Introduction to Wind Systems (Lakeshore Technical College Course) - 3 Crs. Prepares the learner to assess the global energy picture, analyze the causes of wind flow and wind flow properties, write a site assessment, explore small, medium, and large wind turbine designs, assess the environmental effects of wind turbines, perform business assessments for wind energy projects, plan a wind energy project, evaluate the operation and maintenance requirements of wind turbines and their components, and analyze the future of wind energy.

482-113 Wind Technician Health and Safety (Lakeshore Technical College Course) - 2 Crs. - Familiarizes learners with Federal Safety and Health Regulations (OSHA) related to the wind energy industry. It introduces the student to proper methods and procedures to eliminate and control hazards related to potential injury/illness in the industry. Students will receive training in First Aid, CPR, rigging, and confined space and will receive a 10-hour OSHA for General Industry certification upon completion of the course. (PREREQUISITE: 10482101 Wind Systems Introduction to)

482-120 Wind Technician 1 Lab (Lakeshore Technical College Course) - 1 Cr. Prepares the learner for work at height. Students will perform equipment maintenance on climbing and fall arrest gear; wear required PFPE, PPE and outdoor apparel when working on a wind energy system; review the causes and results of workplace accidents and injuries; demonstrate adequate health and wellness for climbing and working at height; demonstrate safe climbing methods; demonstrate proper “ground crew” working habits; and tie basic rigging knots. (COREQUISITE: 10482101 Wind Systems Introduction to)

482-122 Wind Technician 2 Lab (Lakeshore Technical College Course) - 1 Cr. Provides the learner with S.A.F.E.R. certification in tower safe access, rescue, and confined space. Includes best practices for work heights; completing a risk assessment; exhibiting proper rigging techniques for rescue equipment; performing a ladder rescue and rescues from a nacelle, hub, and blade; performing an evacuation; completing a

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confined space permit; assembling and testing a respirator; and using an air monitor to test air quality; current legislation. (COREQUISITES: 10482120 Wind Technician 1 Lab and 10482113 Wind Tech Health and Safety)

482-124 Wind Technician 3 Lab (Lakeshore Technical College Course) - 1 Cr. Certifies learner in torque tool techniques through Snap-On Tools. Student will apply safe and proper technique with use of a click-type torque wrench, dial-type torque wrench, torque screwdriver, torque adapter, and torque extensions; verify appropriate torque techniques on a test bench; apply proper technique with the Techangle® wrench; and demonstrate safe and proper torque technique using the Hytorc® equipment. Turbine maintenance techniques will be applied. (COREQUISITE: 10482122 Wind Technician 2 and 10482132 Small Turbine Maintenance/Site Assessment or 10482103 Wind Farm Internship)

482-126 Wind Technician 4 (Lakeshore Technical College Course) - 3 Crs. Strengthens the learner's electromechanical skills by reviewing arc flash requirements, power quality, power factor correction, transformer calculations, and electrical distribution and transmission systems. Students will explore drive trains used in wind turbines, analyze the causes and results of gear failures, demonstrate proper techniques for gearbox and generator alignment; and compare and contrast synchronous and asynchronous generators. (PREREQUISITES: 10482124 Wind Tech 3, 10620141 Industrial Controls & Motors, 10620130 Mech Mech Intro, 10620138 Prog Controllers-Allen Bradley and COREQUISITES: 10482128 Wind Tech 5 and 10620139 PLC Practical Applications)

482-128 Wind Technician 5 (Lakeshore Technical College Course) - 2 Crs. Will have the learner working with data collected from wind energy systems at LTC using Microsoft Excel, wind energy calculators, and MET tower software. Participants may determine energy production, wind speeds, and wind direction; produce power curves; calculate wind shear; analyze rotor wash, estimate availability and capacity factor of a wind system; estimate payback and return on investment for wind systems, and create charts and graphs to summarize the data. (COREQUISITE: 10482126 Wind Technician 4)

482-132 Turbine Maintenance/Site Assessment (Lakeshore Technical College Course) - 2 Crs. Prepares learners to climb, inspect, and service towers; use torque fasteners; check lubrication in gearboxes; add grease to moving and exposed parts, verify good electrical connections, and perform an overall "system check" on a wind energy system as part of routine maintenance. Structural weld assessments, inspections, and fault determination will be covered. Wind industry standards, techniques, and details will be applied in performing quality site assessments. Travel is required. (PREREQUISITES: 10660110 AC Fundamentals and 10620138 Programmable Controllers-Allen Bradley and 10804115 College Tech Math 1 or 10804114 College Tech Math 1B and 10482120 Wind Technician 1 Lab and 10620104 Fluid Power 2)

499-100 Apprenticeship Completion - 39 Crs. Requires the completion of a BAS/BAT Apprenticeship Program of 400 hours. Record of completion of an apprenticeship for the Technical Studies Journeyworker program.

501-101 Medical Terminology - 3 Crs. Focuses on the component parts of medical terms: prefixes, suffixes and word roots. Students practice formation, analysis and reconstruction of terms. Emphasizes spelling, definition and pronunciation. Introduces operative, diagnostic, therapeutic and symptomatic terminology of all body systems, as well as systemic and surgical terminology. For online sections, it is required that the mid-term and final exam be taken with a proctor.

501-102 Health Insurance and Reimbursement (Lakeshore Technical College Course) - 3 Crs. Introduces the student to Federal, state, and private health insurance plans and managed care systems; and surveys the coding, submission and processing cycle of claims, as well as reimbursement methods used by payers. It provides application of information to ambulatory settings, pharmacies, hospitals, and long-term care.

501-104 Principles of Customer Service in Healthcare - 2 Crs. Introduces customer service for students interested in working in various healthcare settings. Investigates healthcare systems, safety standards and the workforce. Examines professionalism, interpersonal and

written communication skills, and confidentiality as they relate to customer service in healthcare.

501-107 Introduction to Healthcare Computing - 2 Crs. Provides an introduction to basic computer functions and applications utilized in contemporary health care settings. Students are introduced to the hardware and software components of modern computer systems and the application of computers in the workplace. Emphasizes the use of common software packages, operating systems, file management, word processing, spreadsheet, database, Internet, and electronic mail.

501-108 Pharmacology for Allied Health - 2 Crs. Introduces students to medication classification and basic pharmacology principles. Students apply basic pharmacodynamics to identify common medications and calculate dosages in preparation for medication administration. (Prerequisites: Completion of or concurrent enrollment in 501-101 Medical Terminology; 509-102 Human Body in Health and Disease)

502-300 Professional Practices - 2 Crs. Focuses on the study of bacteriology and its relationship to spreading diseases. Examines infection control and the responsibility of the salon professional to practice sanitation. Explores career image of the Barber/Cosmetologist. Practices skills in preparation for clinical experiences. Develops relationships with clientele and coworkers.

502-301 Hairstyling, Shampooing and Scalp Treatments - 2 Crs. Develops skills in shampooing and scalp treatment procedures and in the use of conditioning products. Focuses on cleansing hair and scalp. Develops skills in pin curling to include flat curls and stand-up curls. Introduces wet sets including Velcro roller setting, blow-drying and iron curling. Also includes electric roller work and skills related to thermal curling and hair pressing.

502-302 Hairstyling, Basic Techniques - 2 Crs. Students develop higher-level skills in hair styling to include; thermal curling and pressing, blow drying techniques, wig care and styling, long hairstyling, braids and updos. Focus is on both theory and practical instruction. Students perform and receive services on each other to develop their skills.

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502-303 Hairstyling, Updos and Braids - 1 Cr.

Develops skills in updo hairstyling to include different types of twists, curls, bows, petals, loops, rolls, artificial hair techniques and ornamentation techniques. Students create hair designs that incorporate direction, movement, smoothness, balance and creativity in the finished design.

502-304 Hairstyling, Shampooing and Scalp

Treatments – 2 Crs. Develops skills in shampooing, scalp treatments and the use of conditioning products. Focuses on cleansing hair and scalp. Students explore procedures for correcting scalp conditions. Students develop skills in roller setting including velcro, magnetic and electric, pin curling and fingerwaving. Students perform and receive services on each other as they develop skills. Discussion will include the chemistry of shampoos, conditioners, and styling aide.

502-309 Nail Care - 1 Cr. Applies techniques for giving basic and spa manicures, pedicures and polish application in preparation for work on the clinic floor. Hands-on activities help students gain skill at manipulations and accuracy of techniques for professional results. Nail structure and nail disorders and diseases are examined to aid in recommendations to the client.

502-311 Haircutting, Basic Forms - 2 Crs.

Analyzes essential factors in creating hair shapes for the individual. Hair is cut using the four main hair-shaping forms with the shears on manikins for practice in preparation for cutting the client's hair. Haircutting services create the basic foundation for hairstyling.

502-312 Haircutting Techniques - 1 Cr.

Focuses on cutting uniformly layered haircuts on manikins using shears and razor. Use of the clippers is practiced. Texturizing and slithering techniques are emphasized while the four main shaping forms are reviewed.

502-313 Short and Trend Cuts - 1 Cr. Includes hands-on experience in the use of manikins and human models to demonstrate more difficult and challenging hair designs.

502-316 Artificial Nails - 1 Cr. Develops skill in procedure and application of nail extensions, acrylic overlay and sculptured nails includ-

ing fiberglass application and gel application. Students are introduced to nail art using an airbrush machine, nail art brushes, trend techniques, and the procedure for French manicuring. It is a requirement of this course that students work with assigned partners to complete the learning plans of this course. Students must work on other students in the class and must allow students to practice skills on them.

502-318 Artificial Nails - 1 Cr. Develops skill in procedure and application of nail extensions, acrylic overlay and sculptured nails including fiberglass application and gel application. Students are introduced to nail art using an airbrush machine, nail art brushes, trend techniques, and the procedure for French manicuring. It is a requirement of this course that students work with assigned partners to complete the learning plans of this course. Students must work on other students in the class and must allow students to practice skills on them.

502-321 Salon Services 1 - 2 Crs. Applies practical techniques, communication skills and core abilities learned in the classroom on clients in a salon-type setting with instructor guidance. Services provided to customers include shampooing, haircutting, hairstyling, hair coloring, permanent waving and scalp treatments.

502-322 Salon Services 2 - 3 Crs. Applies practical techniques, communication skills and core abilities learned in the classroom on clients in a salon-type setting with instructor guidance. Services provided to customers include shampooing, haircutting, hairstyling, hair coloring, permanent waving, scalp treatments, and manicures and pedicures.

502-323 Salon Services 3 - 3 Crs. Applies practical techniques, communication skills and core abilities learned in the classroom on clients in a salon-type setting with instructor guidance. Services provided to customers include shampooing, haircutting, hairstyling, hair coloring, permanent waving, scalp treatments, manicures, pedicures, highlighting techniques, corrective coloring and facials. Students are also expected to market products and services.

502-324 Salon Services 4 - 4 Crs. Applies practical techniques, communication skills and core abilities learned in the classroom on clients in a salon-type setting with minimal instruc-

tor guidance. Services provided to customers include shampooing, haircutting, hairstyling, hair coloring, permanent waving, scalp treatments, manicures, pedicures, highlighting techniques, corrective coloring, facials, artificial nails, chemical relaxing and wigs. Students are also expected to market products and services.

502-325 Salon Services 5 - 3 Crs. Applies practical techniques, communication skills and core abilities learned in the classroom on clients in a salon-type setting with little or no instructor guidance. Services provided to customers include shampooing, haircutting, hairstyling, hair coloring, permanent waving, scalp treatments, manicures, pedicures, highlighting techniques, corrective coloring, facials, artificial nails, chemical relaxing and wigs. Students take and evaluate a test curl independent of the instructor. Students are also expected to market products and services.

502-330 Facials/Skin Structure and Its Disorders - 3 Crs. Develop skills in skin care services including facial massage, arching, waxing, chemical hair removal, and mask and pack applications. Students develop skills in applying corrective makeup using techniques to balance eye shapes with eye makeup using safe and sanitary shaving procedures, applying artificial eyelashes, and using an eyelash curler. Students are required to perform and receive services on each other, as assigned by the instructor.

502-332 Facials/Skin Structure and Its Disorders - 2 Crs. Develop skills in skin care services including facial massage, arching, waxing, chemical hair removal, and mask and pack applications. Students develop skills in applying corrective makeup using techniques to balance eye shapes with eye makeup using safe and sanitary shaving procedures, applying artificial eyelashes, and using an eyelash curler. Students are required to perform and receive services on each other, as assigned by the instructor.

502-333 Chemical Relaxing and Wigs - 1 Cr. Focuses on the process of changing natural curly hair forms so that they become either less curly or straight. Combines product information with choice of techniques and hair analysis for a relaxing treatment. Special emphasis is placed on sodium hydroxide. Also includes cleaning and blocking, shaping, coloring, and the setting and styling of wigs and wiglets.

502-334 Permanent Wave Techniques - 2 Crs. Provides the initial skills in permanent waving hair including analyzing the hair and scalp, the basics of sectioning and subsectioning, and wrapping hair on the permanent wave rods. Advanced wrapping of the unsectioned wrap and bricklay are included. Analyzes the chemical effects on the hair shaft during permanent waving, the chemistry of permanent wave lotion and the permanent wave process.

502-335 Permanent Wave, Design Wraps - 1 Cr. Applies permanent wave wrapping skills to the mohawk and cowlick wrap patterns without basic sectioning. Employs spiraling techniques using permanent wave rods and tensive rings (rounded rods). Product knowledge is introduced. Analyzes the purpose and properties of hair, along with its disorders and diseases.

502-336 Chemical Services and Properties of the Hair - 1 Cr. Focuses on the process of chemical relaxing naturally curly hair into a straighter form. Product information, hair analysis, and virgin and retouch application are discussed. Emphasis is on sodium hydroxide relaxers. Permanent wave skills include the spiral and piggyback wrap techniques. Analyzes the properties of the hair along with its disorders and diseases.

502-337 Advanced Design Wraps - 1 Cr. Focuses on advanced permanent wave wrap techniques. Directional wraps for short to medium length hair along with wraps for long hair will be practiced. Examines electricity as it applies to salons, and classification of the effects of light therapy and electrotherapy are discussed.

502-338 Electricity and Chemistry - 1 Cr. Focuses on the basics of organic and inorganic chemistry. Students will analyze physical mixtures and chemical compounds, physical and chemical changes, the pH scale, emulsions, and common product ingredients. Electricity will be examined as it applies to salons and classification of the effects of light therapy and electrotherapy.

502-341 Salon Services 1 - 2 Crs. Applies practical techniques, communication skills, and core abilities learned in the classroom on clients in a salon-type setting with instructor guid-

ance. Services provided to customers include shampooing, haircutting, hairstyling, hair coloring, permanent waving, chemical relaxing, highlighting, corrective color, wigs, and scalp treatments.

502-342 Salon Services 2 - 4 Crs. Applies practical techniques, communication skills, and core abilities learned in the classroom on clients in a salon-type setting with minimal instructor guidance. Services provided to customers include shampooing, haircutting, hairstyling, hair coloring, permanent waving, chemical relaxing, highlighting, corrective color, wigs, scalp treatments, manicures, pedicures, and facial services. Students are expected to market products and services.

502-343 Salon Services 3 - 5 Crs. Applies practical techniques, communication skills, and core abilities learned in the classroom on clients in a salon-type setting with little or no instructor guidance. Services provided to customers include shampooing, haircutting, hairstyling, hair coloring, permanent waving, chemical relaxing, highlighting, corrective color, wigs, scalp treatments, manicures, pedicures, artificial nails and facial services. Students take and evaluate a test curl independent of the instructor. Students are expected to market products and services.

502-345 Hair Color Applications - 1 Cr. Practices hair color techniques including artificial color removal, color fillers and tintbacks.

502-346 Lightening and Toning - 1 Cr. Provides instruction and practice using techniques for applying lightening products to hair. Included are first-time lightening, lightening retouch, highlighting and lowlighting cap technique, and toning application. Tint retouch is reviewed according to state board criteria. Students demonstrate skills on peers and/or manikins.

502-347 Hair Color and Lightening - 2 Crs. Focuses on basic techniques and knowledge of a variety of hair color and lightening products used on the hair. Analysis includes discussion regarding contributing pigment in the hair, determining desired outcomes, which product to use, product application, and evaluating the results. State board criteria will be discussed.

502-348 Highlighting and Corrective Color - 1 Cr. Develops skills in selecting color formulas, principles applied when coloring grey hair and achieving special effects. Introduces highlighting techniques, corrective hair coloring techniques and brow coloring.

502-354 Chemistry - 1 Cr. Focuses on the composition and nature of hair and how it is affected by the products used in performing services to change it both chemically and physically. Students will analyze mixture and chemical compounds, physical and chemical changes, the pH scale, acids and bases, cosmetics, solutions and emulsions to develop safe and knowledgeable reasoning skills regarding hair and skin.

502-355 Anatomy and Book Final - 1 Cr. Focuses on the anatomy and physiology of the body by identifying and examining cells and the skeletal, muscular, nervous and circulatory systems. Includes a comprehensive review in preparation for the written portion of the state board examination following the guidelines established by Prometric Testing Services.

502-356 Laws and Rules - 1 Cr. Examines Wisconsin cosmetology state statutes and administrative code. The state statutes are studied in relation to the corresponding rules involved with each topic. Focuses on the structure of skin and its disorders and diseases as it relates to the cosmetology industry.

502-361 Nail Technician 1 - 3 Crs. Introduces the student to theory related to basic and lactol manicure. Focuses on products, procedures, methods and skill development in manicuring, pedicuring and artificial nails. First of three courses preparing students for state Manicurist Licensing Exam. A meeting with an admissions specialist is required prior to enrolling in the course.

502-362 Nail Technician 2 - 4 Crs. Continuation of theoretical and practical skill development. Part two of a three-part program preparing students for the state Manicurist Licensing Exam. Skills will be practiced in an actual salon setting. (Prerequisite: 502-361 Nail Technician 1)

502-363 Nail Technician 3 - 2 Crs. Continuation of a three-part Nail Technician program. Student will concentrate on develop-

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ing skills and acceptable practices in a salon setting in preparation for the state Manicurist Licensing Exam. (Prerequisite: 502-362 Nail Technician 2)

502-381 Salon Operations - 1 Cr. Provides basic business principles necessary to plan and operate a business establishment. Employer-employee relationships, basic recordkeeping and time management skills are taught.

502-501 Shampooing, Cutting, Styling and Permanent Waving - 3 Crs. Focuses on the theoretical knowledge and practical skills in preparation for state licensure as a practitioner in the profession of Cosmetology, specifically in the subjects of haircutting, beard trimming, shampooing, hair styling, wigs and permanent waves. Must be a state-contracted apprentice to enroll in this course.

502-502 Relaxing, Coloring, Nails and Skin - 3 Crs. Focuses on the theoretical knowledge and practical skills in preparation for state licensure as a practitioner in the profession of Cosmetology, specifically in the subjects of hair coloring, chemical relaxing, skin care and nail care. Must be a state-contracted apprentice to enroll in this course.

502-503 Health, Image, Structure and Law - 3 Crs. Focuses on the theoretical knowledge and practical skills in preparation for state licensure as a practitioner in the profession of Cosmetology, specifically in the subjects of history, professional image, infection control, properties of the hair, chemistry, anatomy and physiology, state law and salon business. Must be a state-contracted apprentice to enroll in this course.

504-102 Careers in Corrections - 3 Crs. Focuses on the exploration of corrections-related careers. Students explore options available to them in the corrections field and they assess their skills and interests. Exploration of corrections-related careers occur through tours of facilities, presentations by working professionals, and individual and group activities. Students must be able to secure transportation and attend group tours of correctional facilities within a 75-mile radius.

504-110 Introduction to Criminal Justice Supervision - 3 Crs. Gives an overview of crime

and the criminal justice system. Causes of crime will be examined as well as the impact of crime on the victim. (Prerequisite: Completion of or concurrent enrollment in 890-101 College 101)

504-113 Criminal Investigation - 3 Crs. Introduces the study of fundamentals of criminal investigation; knowledge, use and function of scientific aids in crime detection; importance of the criminals' modus operandi; development of sources of information; and the need for investigation in the criminal justice system.

504-116 Alcohol and Drug Awareness in Criminal Justice - 3 Crs. Using the dualistic approach, the progression of alcohol and other substance abuses are explored. Legal ramifications of substance abuse are investigated. Effects of alcohol and other drug abuse on the family are covered. Examines the composition and effects of the most common substances of abuse.

504-136 Correctional Counseling - 3 Crs. Develops corrections core skills to effectively counsel, on a paraprofessional level, people in a variety of corrections environments. Emphasizes the how or the conditions under which effective counseling can occur. Students will develop a multiple modality approach for individual and group counseling. (Prerequisite: 504-931 Communication Skills)

504-143 Probation and Parole - 3 Crs. Develops skills to perform the dualistic roles of a Wisconsin probation and parole agent. Through numerous hands-on activities and the application of pertinent Wisconsin Codes, students become competent in providing safety/security in the community while monitoring and counseling offenders. (Prerequisites: 801-136 English Composition 1. Completion of or concurrent enrollment in 504-110 Introduction to Criminal Justice Supervision)

504-155 Stress Management - 3 Crs. Provides participants with skills and abilities to deal constructively with stressors in the correctional field. Focus is on assessing individual stressors, analyzing the impact of stress, reducing stressors and developing stress-coping mechanisms. Coping mechanisms include assertion, anger management, conflict resolution, time management, relaxation activities, exercise and diet planning.

504-162 Corrections Internship - 2 Crs. Focuses on developing a corrections-specific résumé and cover letter. Learn how to complete applications. Upon completion of the classroom work, students complete a 72-hour internship at a corrections-related site. (Prerequisites: 504-102 Careers in Corrections; 504-110 Introduction to Criminal Justice Supervision; 504-181 Ethnicity, Corrections and Supervision; 504-930 Security Procedures; 504-931 Communication Skills; 504-933 Correctional Report Writing; criminal background check)

504-181 Ethnicity, Corrections and Supervision - 3 Crs. Examines the nature of prejudice and discrimination, and the relationship within the Criminal Justice System. Students analyze personal behaviors, attitudes, values, and the impact of interactions with diverse populations. Integrates employment/industry trends and a service-learning component to increase cultural awareness and promote cultural competence.

504-930 Security Procedures - 3 Crs. Demonstrate the steps involved in receiving and releasing inmates and maintaining security. Develop the skill needed for mitigation of hostage type situations. Topics include admission, release, and search procedures; use of jail locking and surveillance equipment; and inmate health management procedures. Students will receive American Heart Association CPR certification as part of the class.

504-931 Communication Skills - 3 Crs. Apply correctional professional communication skills including mediation, arbitration, and crisis intervention in a correctional setting. (Prerequisites: Completion of or concurrent enrollment in 103-159 Computer Literacy - Microsoft Office; 890-101 College 101)

504-932 Adult Supervision - 3 Crs. Focuses on practicing supervision skills, including positive behavior control, dispute resolution, and incident debriefing. Explore belief systems, social pressure, moral problems, decision-making and the consequences of decisions. (Prerequisite: 504-933 Correctional Report Writing)

504-933 Correctional Report Writing - 3 Crs. Apply basic requirements, guidelines and skills for proper and professional documentation of activities and incidents in a correctional setting.

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(Prerequisites: 801-136 English Composition 1. Completion of or concurrent enrollment in 504-931 Communication Skills)

504-934 Correctional Law and Code - 3 Crs.

Introduces key concepts and principles underlying legal requirements for jail operations and guidelines for protecting the legal rights of inmates. Key issues covered include introduction to the role of the jail officer, rules and standards governing correctional operations, structure of the court system, overview of civil liability, and key constitutional rights of inmates. (Prerequisite: 504-933 Correctional Report Writing)

504-935 Corrections Summary Assessment - 1 Cr.

Refine previously learned skill and abilities by applying them to various case studies and simulated situations. (Prerequisites: Completion of or concurrent enrollment in 504-136 Correctional Counseling; 504-162 Corrections Internship; 504-933 Correctional Report Writing)

504-936 Emergency Procedures - 3 Crs.

Implement Principles of Subject Control (POSC) in a correctional environment with an emphasis on team tactics. Students apply current fire science concepts to jail fire prevention and response, including search and rescue, fire suppression, and use of safety procedures. (Prerequisite: 504-930 Security Procedures)

504-937 Juvenile Supervision - 3 Crs. Apply theories of adolescent development to develop strategies for effective supervision, protection and discipline of juveniles. (Prerequisite: 504-933 Correctional Report Writing)

509-101 Medical Assistant Administrative Procedures - 2 Cr. Introduces medical assistant students to office management, business administration, and the electronic medical record (EMR) in the medical office. Students learn to schedule appointments, perform filing, recordkeeping, telephone and reception duties, communicate effectively with patients and other medical office staff, and keep an inventory of supplies. (Prerequisites: Completion of 106-103 Keyboarding or test score; Completion of or concurrent enrollment in 501-107 Introduction to Healthcare Computing) Keyboarding pretest can be taken at any college library to determine placement.

509-102 Human Body in Health and Disease - 3 Crs. Focuses on diseases that are frequently first diagnosed and treated in the medical office setting. Students learn to recognize human body anatomy and the causes, signs and symptoms of diseases of the major body systems as well as the diagnostic procedures, usual treatment, prognosis and prevention of common diseases. (Prerequisite: Completion of or concurrent enrollment in 501-101 Medical Terminology)

509-107 Medical Office Insurance and Finance - 2 Crs.

Introduces medical assistant, medical office and medical billing students to health insurance and finance in the medical office. Students perform bookkeeping procedures, apply managed care guidelines and complete insurance claim forms. Students use medical coding and managed care terminology to perform insurance-related duties. (Prerequisites: Completion of or concurrent enrollment in 501-101 Medical Terminology; 501-107 Introduction to Healthcare Computing; 509-102 Human Body in Health and Disease)

509-109 Medical Law, Ethics and Professionalism - 2 Cr.

Prepares students to display professionalism and perform within ethical and legal boundaries in the healthcare setting. Students maintain confidentiality, examine legal and bioethical issues, and demonstrate awareness of diversity.

509-303 Medical Assistant Laboratory Procedures 1 - 2 Crs.

Introduces medical assistant students to laboratory procedures commonly performed by medical assistants in a medical office setting. Students perform CLIA waived routine laboratory procedures commonly performed in the ambulatory care setting. Students follow laboratory safety requirements and federal regulations while performing specimen collection and processing, microbiology and urinalysis testing. (Prerequisites: Admission to the Medical Assistant program. Completion of or concurrent enrollment in 501-101 Medical Terminology; 509-102 Human Body in Health and Disease. Corequisite: 509-304 Medical Assistant Clinical Procedures 1)

509-304 Medical Assistant Clinical Procedures 1 - 4 Crs.

Introduces medical assistant students to the clinical procedures performed in the medical office setting. Students perform basic examining room skills

including screening, vital signs and patient history, and assist with minor surgery and patient preparation for routine and specialty exams in the ambulatory care setting. (Prerequisites: Admission into the Medical Assistant program. Completion of or concurrent enrollment in 501-101 Medical Terminology; 509-102 Human Body in Health and Disease. Corequisite: 509-303 Medical Assistant Laboratory Procedures 1)

509-305 Medical Assistant Laboratory Procedures 2 - 2 Crs.

Prepares students to perform phlebotomy and CLIA waived hematology, chemistry, immunology and laboratory procedures commonly performed by medical assistants in the ambulatory care setting. (Prerequisites: 509-303 Medical Assistant Laboratory Procedures 1; 509-304 Medical Assistant Clinical Procedures 1. Completion of or concurrent enrollment in 501-108 Pharmacology for Allied Health. Corequisite: 509-306 Medical Assistant Clinical Procedures 2)

509-306 Medical Assistant Clinical Procedures 2 - 3 Crs.

Prepares medical assistant students to perform patient care skills in the medical office setting. Students perform clinical procedures including administering medications, performing an electrocardiogram, assisting with respiratory testing, educating patients/community, and assisting with emergency preparedness in an ambulatory care setting. (Prerequisites: 509-303 Medical Assistant Laboratory Procedures 1; 509-304 Medical Assistant Clinical Procedures 1. Completion of or concurrent enrollment in 501-108 Pharmacology for Allied Health. Corequisite: 509-305 Medical Assistant Laboratory Procedures 2)

509-310 Medical Assistant Practicum - 3 Crs.

The practicum experience requires medical assistant students to integrate and apply knowledge and skills from all previous medical assistant courses in actual ambulatory healthcare settings. Students perform medical assistant administrative, clinical and laboratory duties under the supervision of trained mentors to effectively transition to the role of a medical assistant. This is a supervised, unpaid, clinical experience. This course must be taken in the last semester. (Prerequisites: 501-107 Introduction to Healthcare Computing; 509-101 Medical Assistant Administrative Procedures; Healthcare Provider CPR and First Aid; Health

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requirements; Criminal Background Check. Completion of or concurrent enrollment in 509-305 Medical Assistant Laboratory Procedures 2; 509-306 Medical Assistant Clinical Procedures 2; 509-107 Medical Office Insurance and Finance; 509-109 Medical Law, Ethics and Professionalism)

510-301 Medication Assistant - 3 Crs.

Prepares experienced nursing assistants to administer medications to residents of a skilled-care nursing facility. Emphasis is in the role of the Medication Assistant, legalities of medication administration, and control and storage of drugs. Provides experience in techniques of administering drugs and recordkeeping. (Prerequisites: Student must be 18 years of age; have a high school diploma, HSED or GED; be on the Wisconsin Nurse Aide Registry with current federal eligibility; have at least 2,000 hours experience in direct patient care within the last three years; have worked a minimum of 40 hours, within the last 90 days, with the residents to whom the student will be administering medications; be recommended in writing by the director of nursing and the administrator of the agency in which the student will be working during clinical experience; and be recommended by two licensed charges nurses, one of whom must be a registered nurse. Currently employed as a certified nursing assistant in a skilled-care facility. This course contains 68 hours of theory and 40 hours of clinical)

512-125 Introduction to Surgical Technology - 4 Crs. Provides the foundational knowledge of the occupational environment. Principles of sterilization and disinfection are learned. Surgical instruments are introduced.

Preoperative patient care concepts are simulated. Lab practice is included. (Prerequisites: 806-177 General Anatomy and Physiology. Completion of or concurrent enrollment in 103-159 Computer Literacy - Microsoft Office; 501-101 Medical Terminology; 890-101 College 101)

512-126 Surgical Technology Fundamentals 1 - 4 Crs. Focuses on preparing the patient and operating room for surgery. Principles of sterile technique are emphasized as the student moves into the scrub role. Lab practice is included. (Prerequisites: Completion of or concurrent enrollment in 501-101 Medical Terminology; 512-125 Introduction to Surgical Technology; 806-179 Advanced Anatomy and Physiology)

512-127 Exploring Surgical Issues - 2 Crs. Explores a variety of issues related to surgical technology. Emphasizes becoming a professional member of the surgical team. (Prerequisites: Completion of or concurrent enrollment in 512-125 Introduction to Surgical Technology; 512-126 Surgical Technology Fundamentals 1)

512-128 Surgical Technology Fundamentals 2 - 4 Crs. Focuses on enhancing surgical technology skills while functioning as a sterile team member. Includes lab and/or clinical practice. (Prerequisites: 501-101 Medical Terminology; 512-125 Introduction to Surgical Technology; 512-126 Surgical Technology Fundamentals 1. Completion of or concurrent enrollment in 512-127 Exploring Surgical Issues; 512-129 Surgical Pharmacology; 806-197 Microbiology)

512-129 Surgical Pharmacology - 2 Crs. Basic study of drug classifications, care and handling of drugs and solutions, application of mathematical principles in dosage calculations, terminology related to pharmacology, anesthesia, and drugs used in surgery. (Prerequisites: Completion of or concurrent enrollment in 512-125 Introduction to Surgical Technology, 512-126 Surgical Technology Fundamentals 1)

512-130 Surgical Skills Application - 2 Crs. Provides a transition from the academic to the clinical setting. Students integrate the surgical technologist skills as they apply to various surgical procedures. (Prerequisites: 512-125 Introduction to Surgical Technology; 512-126 Surgical Technology Fundamentals 1. Completion of or concurrent enrollment in 512-128 Surgical Technology Fundamentals 2; 512-129 Surgical Pharmacology)

512-131 Surgical Interventions 1 - 4 Crs. Provides the foundational knowledge of surgical core and specialty procedures. Examines the pathophysiology, diagnostic interventions, health sciences and surgical techniques for a variety of procedures. (Prerequisites: 512-128 Surgical Technology Fundamentals 2; 512-130 Surgical Skills Application)

512-132 Surgical Technology Clinical 1 - 3 Crs. Apply basic surgical theories, principles and procedural techniques in the operating room. Students begin to function as team members under the guidance of the instructor and authorized clinical personnel. (Prerequisites: 512-128

Surgical Technology Fundamentals 2; 512-130 Surgical Skills Application. Completion of or concurrent enrollment in 512-131 Surgical Interventions 1. Health requirements; criminal background check; CPR)

512-133 Surgical Technology Clinical 2 - 3 Crs. Further experience in a clinical setting allows students to continue to improve technical skills while accepting more responsibilities during surgical procedures. (Prerequisites: 512-132 Surgical Technology Clinical 1. Completion of or concurrent enrollment in 512-131 Surgical Interventions 1. Health requirements; criminal background check; CPR)

512-135 Surgical Technology Clinical 3 - 3 Crs. Further experience in a clinical setting allows the student to continue to improve technical skills while accepting more responsibilities during surgical procedures. (Prerequisites: 512-133 Surgical Technology Clinical 2. Completion of or concurrent enrollment in 512-142 Surgical Interventions II or 512-134 Surgical Interventions 2. Health requirements; criminal background check; CPR)

512-136 Surgical Technology Clinical 4 - 3 Crs. During this clinical course, the student will function relatively independently. Serves as a transition from a student perspective to an employee by utilizing advanced skills for an entry-level Surgical Technologist. (Prerequisites: 512-135 Surgical Technology Clinical 3. Completion of or concurrent enrollment in 512-142 Surgical Interventions II or 512-134 Surgical Interventions 2. Health requirements; criminal background check; CPR)

512-142 Surgical Interventions II - 4 Crs. Expands knowledge of core and specialty surgical procedures by incorporating pathophysiology, diagnostic interventions, health sciences, and surgical techniques. (Prerequisites: 512-131 Surgical Interventions 1; 512-133 Surgical Technology Clinical 2. Completion of or concurrent enrollment in 512-135 Surgical Technology Clinical 3; 512-136 Surgical Technology Clinical 4)

513-100 Phlebotomy Essentials - 4 Crs. Prepares students to collect blood specimens for laboratory analysis. Students apply medical terminology, basic anatomy and physiology, infection control, safety, communication and professionalism as they relate to the role of the phle-

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botomist in the medical laboratory. Specimen collection equipment and venipuncture used. This course is for Phlebotomy Technician Certificate students only. Students must be 18 years of age or older. (Prerequisite: Concurrent enrollment in 513-110 Basic Lab Skills)

513-101 Phlebotomy Clinical - 2 Crs. Provides students with experiences at a hospital, clinic and/or blood center locations in order to complete phlebotomy activities. Students complete venipunctures, perform administration of glucose testing, collect specimens, perform bleeding times, observe or perform arterial blood gas collections and adhere to safety regulations as established by the clinical site. (Prerequisites: 513-100 Phlebotomy Essentials or 513-111 Phlebotomy; criminal background check)

513-105 Phlebotomy for Allied Health - 2 Crs. Focuses on the introduction to human specimen collection and processing. Provides opportunities for students to perform routine venipuncture, routine capillary puncture, and special collection procedures. Learning venous access skills from a phlebotomy perspective can facilitate enhanced technique in subsequent program courses. Performs administration of some CLIA waived testing, specimen collection, and bleeding times on human subjects. Designed for any healthcare student currently enrolled in or on waiting lists for Allied Health programs.

513-109 Blood Bank - 4 Crs. Focuses on blood banking concepts and procedures including blood typing, compatibility testing, work ups for adverse reaction to transfusions, disease states and donor activities. (Prerequisites: 513-110 Basic Lab Skills; 513-115 Basic Immunology Concepts. Corequisites: 513-114 Urinalysis; 513-120 Basic Hematology; 513-121 Coagulation)

513-110 Basic Lab Skills - 1 Cr. Explores health career options and the fundamental principles and procedures performed in the clinical laboratory. Students will utilize medical terminology and basic laboratory equipment. Students will follow required safety and infection control procedures and perform simple laboratory tests. (Prerequisites: Concurrent enrollment in 513-111 Phlebotomy; 513-113 Quality Assurance and Laboratory Math; 513-115 Basic Immunology Concepts or concurrent enrollment in 513-100 Phlebotomy Essentials)

513-111 Phlebotomy - 2 Crs. Provides opportunities for students to perform routine venipuncture, routine capillary puncture and special collection procedures. (Prerequisite: Must be a health program coded student)

513-113 Quality Assurance and Laboratory Math - 1 Cr. Focuses on performing the mathematical calculations routinely used in laboratory settings. Students will explore the concepts of quality control and quality assurance in the laboratory and will review regulatory compliance requirements, and certification and continuing education programs. (Prerequisites: 806-177 General Anatomy and Physiology. Completion of or concurrent enrollment in 103-159 Computer Literacy - Microsoft Office; 806-186 Introduction to Biochemistry; 890-101 College 101. Concurrent enrollment in 513-110 Basic Lab Skills; 513-111 Phlebotomy; 513-115 Basic Immunology Concepts)

513-114 Urinalysis - 2 Crs. Prepares students to perform a complete urinalysis which includes physical, chemical and microscopic analysis. Students will explore renal physiology and correlate urinalysis results with clinical conditions. (Prerequisite: 513-111 Phlebotomy. Corequisites: 513-109 Blood Bank; 513-120 Basic Hematology; 513-121 Coagulation)

513-115 Basic Immunology Concepts - 2 Crs. Provides an overview of the immune system including laboratory testing methods for diagnosis of immune system disorders, viral and bacterial infections. (Prerequisites: Concurrent enrollment in 513-110 Basic Lab Skills; 513-111 Phlebotomy; 513-113 Quality Assurance/Laboratory Math)

513-120 Basic Hematology - 3 Crs. Covers the theory and principles of blood cell production and function, and introduces students to basic practices and procedures in the hematology laboratory. (Prerequisite: 513-111 Phlebotomy. Corequisites: 513-109 Blood Bank; 513-114 Urinalysis; 513-121 Coagulation)

513-121 Coagulation - 1 Cr. Introduces the theory and principles of coagulation and explores mechanisms involved in coagulation disorders. Emphasis is placed upon laboratory techniques used to diagnose disease and monitor treatment. (Prerequisite: 513-110 Basic Lab Skills. Corequisites: 513-109 Blood Bank; 513-114 Urinalysis; 513-120 Basic Hematology)

513-130 Advanced Hematology - 2 Crs. Explores mechanisms involved in the development of hematological disorders. Emphasis is placed upon laboratory techniques used to diagnose disorders and monitor treatment. (Prerequisite: 513-120 Basic Hematology. Corequisites: 513-131 Clinical Chemistry 1; 513-132 Clinical Chemistry 2; 513-133 Clinical Microbiology)

513-131 Clinical Chemistry 1 - 3 Crs. Introduces Clinical Chemistry techniques and procedures for routine analysis using photometric, potentiometric and separation techniques. Topics in this course include pathophysiology and methodologies for carbohydrate, lipoids, proteins, renal function and blood gas analysis. (Prerequisites: 513-114 Urinalysis; 806-186 Introduction to Biochemistry. Corequisites: 513-130 Advanced Hematology; 513-132 Clinical Chemistry 2; 513-133 Clinical Microbiology)

513-132 Clinical Chemistry 2 - 2 Crs. A continuation of Clinical Chemistry Diagnostics, this course includes techniques and procedures for analysis using sophisticated laboratory instrumentation. Topics include pathophysiology and methodologies for hepatic, bone, cardiac markers, tumor markers, endocrine function, fetal function, miscellaneous body fluids, and toxicology. (Prerequisite: 513-121 Coagulation. Corequisites: 513-130 Advanced Hematology; 513-131 Clinical Chemistry 1; 513-133 Clinical Microbiology)

513-133 Clinical Microbiology - 4 Crs. Presents the clinical importance of infectious diseases with emphasis upon the appropriate collection, handling and identification of clinically relevant bacteria. Disease states, modes of transmission and methods of prevention and control, including antibiotic susceptibility testing, will also be discussed. (Prerequisites: 806-177 General Anatomy and Physiology; 806-197 Microbiology. Corequisites: 513-130 Advanced Hematology; 513-131 Clinical Chemistry 1; 513-132 Clinical Chemistry 2)

513-140 Advanced Microbiology - 2 Crs. Provides an overview of acid fast organisms, fungi, parasites, and anaerobic bacteria. The organisms, their pathophysiology, epidemiology, the diseases and conditions that they cause, laboratory methods of handling, culturing and identification will be discussed. (Prerequisite:

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513-133 Clinical Microbiology. Corequisites: 513-151 Clinical Experience 1; 513-152 Clinical Experience 2; 513-153 Clinical Experience Seminar; 513-170 Introduction to Molecular Diagnostics)

513-151 Clinical Experience 1 - 3 Crs.

Students will practice the principles and procedures of laboratory medicine as an entry-level Clinical Laboratory Technician in a clinical laboratory setting. Students will learn to operate state-of-the-art instruments and report results on Laboratory Information Systems. (Prerequisites: 513-133 Clinical Microbiology; health requirements; criminal background check required. Corequisites: 513-140 Advanced Microbiology; 513-152 Clinical Experience 2; 513-153 Clinical Experience Seminar; 513-170 Introduction to Molecular Diagnostics)

513-152 Clinical Experience 2 - 4 Crs.

Provides continuing practice for the principles and procedures of laboratory medicine as an entry-level Clinical Laboratory Technician in a clinical laboratory setting. Students will learn to operate state-of-the-art instruments and report results on Laboratory Information Systems. (Prerequisites: 513-133 Clinical Microbiology; health requirements; criminal background check required. Corequisites: 513-140 Advanced Microbiology; 513-151 Clinical Experience 1; 513-153 Clinical Experience Seminar; 513-170 Introduction to Molecular Diagnostics)

513-153 Clinical Experience Seminar - 4 Crs.

Promotes student success for completing the CLT Exit Exam and the Board of Registry Exam. Each topic area of the clinical laboratory will be reviewed in an interactive manner during the semester. (Prerequisite: 513-133 Clinical Microbiology. Corequisites: 513-140 Advanced Microbiology; 513-151 Clinical Experience 1; 513-152 Clinical Experience 2; 513-170 Introduction to Molecular Diagnostics)

513-170 Introduction to Molecular

Diagnostics - 2 Crs. Introduces the principles and application of Molecular Diagnostics in the Clinical Laboratory. (Prerequisite: 513-133 Clinical Microbiology. Corequisites: 513-140 Advanced Microbiology; 513-151 Clinical Experience 1; 513-152 Clinical Experience 2; 513-153 Clinical Experience Seminar)

515-111 Respiratory Survey - 3 Crs. Examines the role of the Respiratory Therapist within the healthcare community. Reviews the ethical, legal and regulatory principles that guide practice across diverse populations. Introductory patient assessment and critical thinking processes used in the development of respiratory care plans are explored. (Prerequisites: Completion of or concurrent enrollment in 890-101 College 101. Acceptance in the Respiratory Therapist program. Corequisite: 515-171 Respiratory Therapeutics 1)

515-112 Respiratory Airway Management - 2 Crs.

Provides a comprehensive exploration of airway management concepts and skills. (Prerequisites: 515-171 Respiratory Therapeutics 1; 806-177 General Anatomy and Physiology. Completion of or concurrent enrollment in 103-159 Computer Literacy - Microsoft Office. Corequisites: 515-172 Respiratory Therapeutics 2; 515-173 Respiratory Pharmacology; 515-174 Respiratory and Cardiac Physiology)

515-113 Respiratory Life Support - 3 Crs.

Focuses on adult respiratory critical care including management of adult ventilator support. (Prerequisites: 515-112 Respiratory Airway Management; 515-172 Respiratory Therapeutics 2; 515-174 Respiratory and Cardiac Physiology; 515-175 Respiratory Clinical 1. Corequisites: 515-176 Respiratory Disease; 515-178 Respiratory Clinical 2; 515-179 Respiratory Clinical 3)

515-171 Respiratory Therapeutics 1 - 3 Crs.

Introduces the topics of medical gas administration and humidity and aerosol therapy. Students apply physics, math and patient assessment concepts to oxygen, aerosol and humidity therapy. (Prerequisite: 806-177 General Anatomy and Physiology. Corequisite: 515-111 Respiratory Survey)

515-172 Respiratory Therapeutics 2 - 3 Crs.

Introduces therapeutic procedures including arterial puncture, bronchial hygiene, lung expansion therapy and pulmonary rehabilitation. (Prerequisite: 515-171 Respiratory Therapeutics 1. Corequisites: 515-112 Respiratory Airway Management; 515-173 Respiratory Pharmacology; 515-174 Respiratory and Cardiac Physiology)

515-173 Respiratory Pharmacology - 3 Crs.

Examines basic pharmacology principles, drug dosage and calculations. Medications for inhalation include mucolytics, bronchodilators and anti-inflammatories. Also includes cardiac drugs, anesthetic drugs, neuromuscular blockers and antimicrobials. (Prerequisites: 515-171 Respiratory Therapeutics 1; 806-177 General Anatomy and Physiology. Corequisites: 515-112 Respiratory Airway Management; 515-172 Respiratory Therapeutics 2; 515-174 Respiratory and Cardiac Physiology)

515-174 Respiratory and Cardiac Physiology - 3 Crs.

Provides the student with an in-depth knowledge of the structure and function of the respiratory and circulatory systems necessary to function as a competent Respiratory Therapist. (Prerequisites: 515-171 Respiratory Therapeutics 1; 806-177 General Anatomy and Physiology. Corequisites: 515-112 Respiratory Airway Management; 515-172 Respiratory Therapeutics 2; 515-173 Respiratory Pharmacology)

515-175 Respiratory Clinical 1 - 2 Crs.

Introduces respiratory therapy practice in the hospital setting. Includes the development of skills such as basic therapeutics, patient assessment, medical record review, safety practices, patient interaction and communication. (Prerequisites: 515-172 Respiratory Therapeutics 2. Completion of or concurrent enrollment in 501-101 Medical Terminology. Health requirements; criminal background check; current certification in CPR for the healthcare provider)

515-176 Respiratory Disease - 3 Crs.

Explores signs, symptoms, causes, progression and treatment of obstructive, restrictive and infectious diseases or disorders of the body that affect the respiratory system. (Prerequisites: 515-112 Respiratory Airway Management; 515-173 Respiratory Pharmacology; 515-174 Respiratory and Cardiac Physiology; 806-177 General Anatomy and Physiology. Corequisites: 515-113 Respiratory Life Support; 515-178 Respiratory Clinical 2; 515-179 Respiratory Clinical 3)

515-178 Respiratory Clinical 2 - 3 Crs.

Continues development of respiratory therapy clinical skills including respiratory therapeutics. Focuses on monitoring, analyzing and interpreting data to make appropriate modifi-

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cations in patient care. (Prerequisite: 515-175 Respiratory Clinical 1. Corequisites: 515-113 Respiratory Life Support; 515-176 Respiratory Disease; 515-179 Respiratory Clinical 3. Health requirements; criminal background check; current certification in CPR for the healthcare provider)

515-179 Respiratory Clinical 3 - 3 Crs.

Continues development of respiratory therapy clinical skills including respiratory therapeutics. Focuses on monitoring, analyzing and interpreting data to make appropriate modifications in patient care. (Corequisites: 515-113 Respiratory Life Support; 515-176 Respiratory Disease 515-178 Respiratory Clinical 2. Health requirements; criminal background check; current certification in CPR for the healthcare provider)

515-180 Respiratory Neonatal and Pediatric Care - 2 Crs.

Provides a comprehensive orientation to the field of neonatal and pediatric respiratory care to include fetal development, birth, neonatal physiology, pulmonary dynamics, abnormal cardiopulmonary conditions, diseases, and noninvasive and invasive therapeutic interventions. (Prerequisite: 515-113 Respiratory Life Support. Corequisites: 515-181 Respiratory and Cardio Diagnostics; 515-182 Respiratory Clinical 4; 515-183 Respiratory Clinical 5)

515-181 Respiratory and Cardio Diagnostics - 3 Crs.

Examines advanced invasive and noninvasive diagnostic cardiopulmonary procedures including pulmonary function, hemodynamics and rescue medicine. (Prerequisites: 515-176 Respiratory Disease; 515-113 Respiratory Life Support. Corequisites: 515-180 Respiratory Neonatal and Pediatric Care; 515-182 Respiratory Clinical 4; 515-183 Respiratory Clinical 5. Student also needs to take 531-409 ACLS-recognition course)

515-182 Respiratory Clinical 4 - 3 Crs.

Continues development of respiratory therapy clinical skills including respiratory therapeutics. Focuses on monitoring, analyzing and interpreting data to make appropriate modifications in patient care. (Prerequisite: 515-179 Respiratory Clinical 3. Corequisites: 515-180 Respiratory Neonatal and Pediatric Care; 515-181 Respiratory and Cardio Diagnostics; 515-183 Respiratory Clinical 5. Health requirements;

criminal background check; current certification in CPR for the healthcare provider)

515-183 Respiratory Clinical 5 - 3 Crs.

Focuses on the completion of respiratory therapy competencies and transition to employment. This course includes the complete program competency list. At the completion of this clinical, students must demonstrate competence in all of the required and required/simulated competencies. (Corequisites: 515-180 Respiratory Neonatal and Pediatric Care; 515-181 Respiratory and Cardio Diagnostics; 515-182 Respiratory Clinical 4. Health requirements; criminal background check; current certification in CPR for the healthcare provider)

522-101 EDU: Teamwork in School Settings - 3 Crs.

Working together is paramount in helping all children learn. This introductory course will define the role and responsibilities of the instructional assistant. School and educational policies, ethical and moral responsibilities, group dynamics and Wisconsin tribal rights will also be explored. Emphasis placed on collaborating with a team comprised of diverse members.

522-102 EDU: Techniques for Reading and Language Arts - 3 Crs.

Focuses on best practices in working with children in their development of reading and language arts as well as the roles of the teacher and the instructional assistant. Students gain an understanding of how to work with all children and reinforce instruction individually and in groups through questioning, listening and guiding, and scaffolding techniques. Current classroom materials plus enrichment and support activities will be examined and created.

522-103 EDU: Introduction to Educational Practices - 3 Crs.

Includes the study of historical, philosophical and social foundations of education; issues and trends including diversity affecting our schools of today including elementary, middle level and secondary educational settings. An overview of the governmental basis of education; fundamentals of teaching methodologies, learning styles, questioning techniques and basic assessment practices will be addressed.

522-104 EDU: Technology and Media Resources - 3 Crs.

Provides the opportunity for

the student to develop the knowledge and skills in the area of media and computer resources as it relates to the instructional assistant. Students will gain experience creating and using Web tools including electronic portfolios. Requires the ability to use a computer, navigate the Web, and use common software applications.

522-106 EDU: Child and Adolescent Development - 3 Crs.

Provides an overview of physical, motor, perceptual, cognitive, social/emotional, and growth and development birth through adolescence. Analyzes social, parental, cultural, brain, and economic influences on development.

522-107 EDU: Overview of Special Education - 3 Crs.

Provides an overview of the special education law. Special education classifications and associated causes and characteristics will be explored as well as state and federal qualification criteria will be examined. Societal responses to students with disabilities as well as the impact of a student with special needs on family dynamics will also be covered in this course.

522-111 EDU: Guiding and Managing Behavior - 3 Crs.

Recent trends in education support a shifting paradigm from reactive discipline to proactive, preventive classroom management. Provides the student with research-based concepts and strategies which can be used to prevent behavior problems from occurring in the classroom and respond to misbehavior. Practical application of strategies to organizing instruction, creating a positive classroom climate, building positive student relationships, implementing sound instructional methods, enhancing motivation, and responding effectively to inappropriate classroom behavior will be emphasized. Effective student communication and problem solving will be practiced in class with a focus on developing skills, which will assist in empowering children to take an active role in self-control and classroom management.

522-118 EDU: Techniques for Mathematics - 3 Crs.

Addresses techniques for the Instructional Assistant in assisting the classroom teacher in group and individual tutoring activities in math. Current practice including manipulatives, problem solving and assessment will be covered within the framework of state and national standards.

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522-120 EDU: Techniques for Science - 3 Crs. The course is an introduction to the content and processes of science. Strategies of teaching science will be studied and practiced and will prepare the student in assisting the classroom teacher in group and individual activities in science. Current science processes, strategies, procedures, assessment options and factors affecting science learning will be explored.

522-122 EDU: Advanced Reading and Language Arts - 3 Crs. Schools focus on integrating reading and writing across the curriculum. In this course, students will explore how to integrate reading and writing within the content areas. Students will also gain the knowledge and skills needed to support and encourage children as independent, strategic readers as well as techniques to support children through the writing process. Children's and young adult literature, poetry and personal writing will be explored and integrated throughout this course.

522-124 EDU: Supporting Students With Disabilities - 3 Crs. Focuses on understanding how service is delivered to students with special education needs in the classroom and through supportive and related services. A review of the law as it relates to special education, and the individual educational program, assessment and planning process will be provided. Based on the premise that all children can learn, students will examine factors which inhibit and enhance learning through a study of various instructional formats such as direct instruction, strategy instruction and task analysis. Students will engage in simulated classroom activities to explore and practice incorporating a wide array of alternative instructional techniques and programs, which can be used to support students with disabilities in all major curricular areas and to help children develop effective study skills.

522-129 EDU: Practicum 1 - 3 Crs. Introduces the student to a diverse classroom setting at an elementary, middle school and/or high school level. The student will observe children and practice techniques under the guidance of a DPI certified teacher. (Prerequisite: Criminal background check)

522-131 EDU: Practicum 2 - 3 Crs. Applies the skills learned in previous program courses in a school setting while under the supervision

of a DPI certified teacher. Students support children with special education needs and programming. Job search skills will be addressed and a professional portfolio will be completed. (Prerequisites: Completion of or concurrent enrollment in 522-129 EDU: Practicum 1; criminal background check)

522-132 EDU: Positive Classroom Management Techniques - 3 Crs. Examines the impact of issues such as divorce, alcoholism, child abuse, youth suicide, stress, violence and gangs on behavior in the classroom. Conflict resolution techniques and de-escalation strategies with an emphasis on prevention will also be examined.

523-110 Natural Wellness Concepts - 2 Crs. Focuses on the fundamental principles upon which the practice of chiropractic is based. Emphasis is placed on the body's ability to heal itself and maintain health throughout the life of the individual. Describes the role media plays in the healthcare choices.

523-113 Chiropractic Foundations - 3 Crs. Explores the terminology and rationale fundamental to chiropractic care and practice. Includes subluxation structure and function, conditions secondary to subluxation and diagnostic terminology. Examines body systems associated with the chiropractic approach to healthcare. (Prerequisite: Completion of or concurrent enrollment in 523-110 Natural Wellness Concepts)

523-120 Fitness for Life - 2 Crs. Explores recreational activities to improve health outcome and overall fitness throughout life. Students will acquire skills and knowledge to increase their quality of life and gain knowledge in activity adaptation as needed.

523-125 Nutrition - 2 Crs. Relates chiropractic nutrition to the total health of the patient. Explores vitamins, minerals and herbs and how they can enhance chiropractic care. Includes study of foods and how diet, together with supplementation, creates optimal health in the chiropractic patient.

523-140 Chiropractic Office Procedures - 3 Crs. Introduces the Chiropractic Technician student to front office procedures in the chiropractic health setting. Topics include telephone tech-

niques, records management, operation of basic office equipment, basic office visit calculations and correspondence, and an introduction in promotions. Students need access to video/DVD recording equipment, audio recording equipment (cassette, CD or DVD), Microsoft Office and Microsoft Publisher. (Prerequisite: Completion of or concurrent enrollment in 523-110 Natural Wellness Concepts)

523-145 Chiropractic Office Management Applications - 2 Crs. Introduces students to the skills needed to manage support staff including interviewing, hiring, training, motivating and conflict resolution. Emphasizes federal and state employment laws, HIPAA standards, as well as OSHA and universal precautions safety laws. Skills necessary to assist with staff meetings are also developed. (Prerequisite: Completion of or concurrent enrollment in Chiropractic Office Procedures Internship 523-190)

523-151 Chiropractic Radiographic Dynamics - 3 Crs. Prepares students in the skills of X-ray physics for applications in X-ray production, X-ray safety, X-ray processing and X-ray positioning. Applies the information and guidelines set forth by the American Chiropractic Registry of Radiologic Technologists. (Prerequisites: Completion of or concurrent enrollment in 523-110 Natural Wellness Concepts; 523-113 Chiropractic Foundations)

523-155 Chiropractic Radiographic Positioning - 3 Crs. Builds skill in positioning patients for various X-ray views. Emphasis is placed on spinal skeletal views, with overview of extremity positioning. Students work with actual X-ray equipment to build skills in taking usable X-rays and explore osseous anatomy as related to the radiographic goals of each of the views. (Prerequisites: 523-151 Chiropractic Radiographic Dynamics. Completion of or concurrent enrollment in 523-113 Chiropractic Foundations)

523-161 Chiropractic Examination - 3 Crs. Explores the basic aspects of a chiropractic examination. Emphasizes skills in taking patient health history and vital signs. Students gain in giving and analyzing orthopedic and neurological tests. Students experience simulated clinical settings, small group discussions and role-play-

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ing to apply examination skills. (Prerequisite: Completion of or concurrent enrollment in 523-113 Chiropractic Foundations)

523-163 Chiropractic Radiographic and Conjunctive Therapy - 4 Crs. Expands on the knowledge and practice of prerequisite coursework in conjunctive therapy and radiography in the chiropractic health setting. Increases student's understanding and knowledge of therapeutic modalities and radiography in the chiropractic health setting and presents the application of this information in a clinical setting. Coursework is completed in the classroom, online and at internship sites. (Prerequisites: 523-155 Chiropractic Radiographic Positioning; 523-170 Conjunctive Therapy. Completion of or concurrent enrollment in 501-101 Medical Terminology)

523-165 Chiropractic Insurance - 3 Crs. Explores patient accounting practices and the calculation of patient billing accounts in a variety of insurance coverage situations (general, HMO, PPO, Medicare, Medicaid, secondary and supplemental insurance). (Prerequisite: 523-140 Chiropractic Office Procedures)

523-167 Chiropractic Insurance Internship - 2 Crs. Provides field experience in the chiropractic health setting for the student in the Chiropractic Technician program. Students participate in two separate clinical internship sites by interacting with staff and patients of the clinic and by performing entry-level tasks. (Prerequisites: 501-101 Medical Terminology; 523-165 Chiropractic Insurance; criminal background check)

523-170 Chiropractic Conjunctive Therapy - 3 Crs. Explores therapeutic procedures most common to chiropractic practice including essential theory as well as indications and contraindications for their use. Modalities studied are: electrical muscle stimulation, ultrasound, thermotherapy, cryotherapy, laser therapy, and therapeutic exercise relating to stretching, strengthening and proprioception enhancement. (Prerequisite: Completion of or concurrent enrollment in 523-113 Chiropractic Foundations)

523-171 Chiropractic Patient Education - 3 Crs. Explores communication topics and approaches to build public speaking skills necessary

to be an effective chiropractic technician. Students develop skills in speaking techniques and investigating informational sources. All speech content focuses on chiropractic health-care. (Prerequisites: 523-113 Chiropractic Foundations. Completion of or concurrent enrollment in 890-101 College 101)

523-190 Chiropractic Office Procedures Internship - 2 Crs. Provides students with on-the-job office procedure experience in a chiropractic office setting. Expands professional insights as students share internship experiences and practice skills such as scheduling patients, collecting payments, demonstrating phone answering skills and filing records. (Prerequisites: 523-140 Chiropractic Office Procedures; criminal background check. Completion of or concurrent enrollment in 523-165 Chiropractic Insurance)

526-149 Radiographic Procedures 1 - 5 Crs. Prepares Radiography students to perform routine radiologic procedures on various parts of the body including the upper body, hip, pelvis and ankle. Students apply knowledge of human anatomy to position the patient correctly to achieve the desired result. (Prerequisites: 806-177 General Anatomy and Physiology; admission to the Radiography program)

526-150 Cross-Sectional Anatomy - 2 Crs. Prepares students to learn cross-sectional anatomy on various parts of the body including the cranial bones, thorax, abdomen, pelvis, spine and extremities of the body. Students apply knowledge of human anatomy to correctly evaluate an image for appropriate anatomical demonstration and to identify structures and organs on a radiograph. Introduces students to types of imaging including CT and MRI.

526-158 Introduction to Radiography - 3 Crs. Introduces students to the role of radiography in healthcare. Students apply medical terminology, legal and ethical considerations to patient care and pharmacology in the radiologic sciences. (Prerequisites: Completion of or concurrent enrollment in 890-101 College 101. Admission to the Radiography program; health requirements; criminal background check)

526-159 Radiographic Imaging 1 - 3 Crs. Introduces Radiography students to the process and components of analog imaging. Students

determine the factors that affect image quality including contrast, density, detail, and distortion. (Prerequisite: Admission to the Radiography program)

526-168 Radiography Clinical 1 - 2 Crs. This beginning-level clinical course prepares radiography students to perform radiologic procedures on patients with extensive supervision and direction. Students apply radiation protection and standard precautions in the production of radiographs in a healthcare setting while adhering to legal and ethical guidelines. An emphasis of the course is the development of communication and critical thinking skills appropriate to the clinical setting. (Prerequisites: Admission to the Radiography program; health requirements; criminal background check)

526-170 Radiographic Imaging 2 - 3 Crs. Explores film processing components as well as the principles and operation of digital imaging systems found in diagnostic radiology. Factors that impact image acquisition, display, archiving and retrieval are discussed. Guidelines for selecting exposure factors and evaluating images within analog and digital systems and principles of digital system quality assurance and maintenance are presented. (Prerequisites: 526-149 Radiographic Procedures 1; 526-158 Introduction to Radiography; 526-159 Radiographic Imaging 1; 526-168 Radiography Clinical 1. Completion of or concurrent enrollment in 103-159 Computer Literacy - Microsoft Office. Corequisites: 526-191 Radiographic Procedures 2; 526-192 Radiography Clinical 2)

526-174 ARRT Certification Seminar - 2 Crs. Provides preparation for the national certification examination prepared by the American Registry of Radiologic Technologists. Emphasis is placed on the weak areas of the individual students. Simulated registry examinations are utilized. (Corequisite: 526-198 Radiography Clinical 6)

526-189 Radiographic Pathology - 1 Cr. Prepares Radiography students to determine the basic radiographic manifestations of pathological conditions. Students classify trauma related to site, complications and prognosis and locate the radiographic appearance of pathologies. (Prerequisites: 526-194 Imaging Equipment Operation; 526-195 Radiographic

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Quality Analysis; 526-199 Radiography Clinical 4. Corequisites: 526-190 Radiography Clinical 5; 526-196 Modalities; 526-197 Radiation Protection and Biology)

526-190 Radiography Clinical 5 - 2 Crs. This fifth-level clinical course prepares Radiography students to perform radiologic procedures on patients with some supervision. Students apply radiation protection and standard precautions in the production of radiographs in a healthcare setting while adhering to legal and ethical guidelines. Students are encouraged to demonstrate independent judgment in the performance of clinical competencies. (Prerequisites: 526-194 Imaging Equipment Operation; 526-195 Radiographic Quality Analysis; 526-199 Radiography Clinical 4; health requirements; criminal background check. Corequisites: 526-189 Radiographic Pathology; 526-196 Modalities; 526-197 Radiation Protection and Biology)

526-191 Radiographic Procedures 2 - 5 Crs. Prepares Radiography students to perform routine radiologic procedures on various parts of the body including the skull and spine. Students apply knowledge of human anatomy to position the patient correctly to achieve the desired result. (Prerequisites: 526-149 Radiographic Procedures 1; 526-158 Introduction to Radiography; 526-159 Radiographic Imaging 1; 526-168 Radiography Clinical 1. Corequisites: 526-170 Radiographic Imaging 2; 526-192 Radiography Clinical 2)

526-192 Radiography Clinical 2 - 3 Crs. This second-level clinical course prepares Radiography students to perform radiologic procedures on patients with extensive supervision and direction. Students apply radiation protection and standard precautions in the production of radiographs in a healthcare setting while adhering to legal and ethical guidelines. An emphasis of the course is the development of communication and critical thinking skills appropriate to the clinical setting. (Prerequisites: 526-149 Radiographic Procedures 1; 526-158 Introduction to Radiography; 526-159 Radiographic Imaging 1; 526-168 Radiography Clinical Practice 1; health requirements; criminal background check. Corequisites: 526-170 Radiographic Imaging 2; 526-191 Radiographic Procedures 2)

526-193 Radiography Clinical 3 - 3 Crs. This third-level clinical course prepares Radiography students to perform radiologic procedures on patients with supervision and direction. Students apply radiation protection and standard precautions in the production of radiographs in a healthcare setting while adhering to legal and ethical guidelines. An emphasis of the course is the demonstration of communication and critical thinking skills appropriate to the clinical setting. (Prerequisites: 526-170 Radiographic Imaging 2; 526-191 Radiographic Procedures 2; 526-192 Radiography Clinical 2; health requirements; criminal background check)

526-194 Imaging Equipment Operation - 3 Crs. Introduces Radiography students to the principles and application of x-ray technology. Students analyze how x-rays are produced and determine the corrective actions necessary for common equipment malfunctions. (Prerequisite: 526-193 Radiography Clinical 3. Corequisites: 526-195 Radiographic Quality Analysis; 526-199 Radiography Clinical Practice 4)

526-195 Radiographic Quality Analysis - 2 Crs. Prepares Radiography students to analyze radiographic images for quality. Students apply quality control tests to determine the cause of image problems including equipment malfunctions and procedural errors. (Prerequisite: 526-193 Radiography Clinical Practice 3. Corequisites: 526-194 Imaging Equipment Operation; 526-199 Radiography Clinical 4)

526-196 Modalities - 3 Crs. Introduces Radiography students to imaging modalities with an emphasis in computed tomography and cross-sectional anatomy. (Prerequisites: 526-194 Imaging Equipment Operation; 526-195 Radiographic Quality Analysis; 526-199 Radiography Clinical 4. Corequisites: 526-189 Radiographic Pathology; 526-190 Radiography Clinical 5; 526-197 Radiation Protection and Biology)

526-197 Radiation Protection and Biology - 3 Crs. Prepares Radiography students to protect themselves and others from exposure to radioactivity. Students examine the characteristics of radiation and how radiation affects cell biology. Students apply standards and guidelines for radiation exposure. (Prerequisites: 526-194 Imaging Equipment Operation; 526-195

Radiographic Quality Analysis; 526-199 Radiography Clinical 4. Corequisites: 526-189 Radiographic Pathology; 526-190 Radiography Clinical 5; 526-196 Modalities)

526-198 Radiography Clinical 6 - 2 Crs. This final clinical course requires students to integrate and apply all knowledge learned in previous courses to the production of high-quality images in the clinical setting. Students apply radiation protection and standard precautions in the production of images in a healthcare setting while adhering to legal and ethical guidelines. Students are encouraged to demonstrate independent judgment in the performance of clinical competencies. (Prerequisites: 526-189 Radiographic Pathology; 526-190 Radiography Clinical 5; 526-197 Radiation Protection and Biology; health requirements; criminal background check. Corequisite: 526-174 ARRT Certification Seminar)

526-199 Radiography Clinical 4 - 3 Crs. This fourth-level clinical course prepares Radiography students to perform radiologic procedures on patients with supervision and direction. Students apply radiation protection and standard precautions in the production of radiographs in a healthcare setting while adhering to legal and ethical guidelines. Students are encouraged to demonstrate independent judgment in the performance of clinical competencies. (Prerequisite: 526-193 Radiography Clinical 3. Corequisites: 526-194 Imaging Equipment Operation; 526-195 Radiographic Quality Analysis; health requirements; criminal background check)

527-100 Introduction to Wastewater Treatment - 3 Crs. Provides an overview of the different processes used in wastewater treatment plants, as well as the collection system and sludge disposal procedures. Covers calculations used to determine plant loadings, detention times and percent removal efficiencies. Environmental regulations, preventive maintenance practices and basic safety precautions are covered.

527-103 Conventional Wastewater Treatment - 3 Crs. Covers the basic biology, chemistry and operational controls of wastewater treatment processes: pre- and primary treatment of wastewater, activated sludge, trickling filters and RBCs (Rotating Biological

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Contactors). The structure and function of major equipment is explained. Various lab tests and the calculations associated with them are presented. (Prerequisite: Completion of or concurrent enrollment in 527-100 Introduction to Wastewater Treatment)

527-105 Advanced Wastewater Treatment Processes - 4 Crs. Develops competence in management of wastewater treatment processes including disinfection, nutrient removal, tertiary filtration, and sludge handling. Uses the Internet to locate resources useful in managing wastewater treatment processes. (Prerequisite: Completion of or concurrent enrollment in 527-100 Introduction to Wastewater Treatment)

527-111 Water Chemistry - 4 Crs. Explores basic chemical concepts and principles such as elements, compounds, states of matter and reactions that are applicable to evaluating and regulating water quality and applies them to water and wastewater treatment. Students also examine laboratory techniques, equipment, quality assurance and recordkeeping and reporting. (Prerequisite: Completion of or concurrent enrollment in 527-100 Introduction to Wastewater Treatment)

527-117 Zeolite Softening, Volatile Organic Compound and Iron Removal - 1 Cr. Provides information and procedures necessary to treat water with excessive levels of calcium and magnesium. Addresses mineral source, treatment options, mechanisms of cation exchange and laboratory control. Designed for students already having experience at a treatment facility who are seeking WDNR certification.

527-120 Hydraulics of Water and Wastewater - 3 Crs. Provides information and procedures necessary to predict and manipulate the hydraulics of water transmission and collection. The primary work assignments involve the reading and use of hydraulic principles and then applying them in a real-life case analysis as a laboratory project. (Prerequisites: Completion of or concurrent enrollment in 527-100 Introduction to Wastewater Treatment; 804-107 College Mathematics)

527-125 Industrial Wastes - 3 Crs. Focuses on the control of wastewater resulting from the processing of a variety of industrial materials. Methods of waste initiation; impact; mini-

mization; and the treatment of waste process streams of metal, pulp and paper, and food and beverage industry operations are emphasized and analyzed. (Prerequisites: 527-100 Introduction to Wastewater Treatment; 527-103 Conventional Wastewater Treatment)

527-129 Utility Management - 3 Crs. Provides students, utility and industry personnel with concepts and insight into management practices. Fundamentals of managing people in the workplace, budgeting and financial management, legal issues, communication, utility functions, and public relations will be explored. Examining an actual management team and utility will be a part of the students learning experience during the progression through the course competencies.

527-130 Groundwater Supply and Distribution - 3 Crs. Provides environmental and treatment information necessary to operate a potable groundwater well system. Basic distribution system design and component use will also be detailed. Students examine a groundwater treatment plant and make operational assessments based on established industry criteria. (Prerequisite: Completion of or concurrent enrollment in 890-101 College 101)

527-131 Surface Water Supply and Treatment - 3 Crs. Determines operational procedures necessary to produce a safe and aesthetically appropriate water supply for human consumption. Students recommend designs for water treatment plants based on established industry criteria. Basic preventive maintenance and safety programs customized to students' designed facilities are also developed. (Prerequisites: Completion of or concurrent enrollment in 103-159 Computer Literacy - Microsoft Office; 527-130 Groundwater Supply and Distribution)

527-132 Surface Water Certification - 1 Cr. Focuses on operational procedures necessary to produce safe and aesthetically acceptable water for human consumption. Methods of handling human and natural environmental contamination of raw water is emphasized and analyzed. Specific treatment technologies include preliminary processes, coagulation, flocculation, sedimentation, filtration and chemical conditioning. Designed for students already having experience at a treatment facility who are seeking WDNR certification.

527-133 Groundwater Supply and Distribution Certification - 3 Crs. Provides environmental and treatment information necessary to operate a potable groundwater well system. Basic distribution system design and component use also will be detailed. Students make operational assessments of a groundwater treatment plant based on established industry criteria. Designed for students already having experience at a treatment facility who are seeking DNR certification.

527-136 Equipment Maintenance and Instrumentation - 4 Crs. Develops skills in the identification and application of tools, correcting facility and system mechanical problems, and understanding the complete concept of preventative and predictive maintenance. Students will research preventative and predictive maintenance systems. Also, skills will be developed using instrumentation for process control. Supervisory Control and Data Acquisition (SCADA), including control diagrams, designs and applications will be studied. (Prerequisites: Completion of or concurrent enrollment in 527-100 Introduction to Wastewater Treatment; 527-111 Water Chemistry)

527-137 Distribution Certification - 1 Cr. Provides skills and knowledge to effectively operate a potable water distribution system. Students explore regulations, chemistry, system components, cross-connections, mathematics and laboratory work. This course also addresses the WDNR Classification D certification objective for those who desire information necessary to achieve this certification.

527-150 Advanced Water Treatment - 3 Crs. Advanced processes and treatments studied during this course include iron, manganese and radium removal, zeolite softening, VOC removal, disinfection precursor and disinfection-by-product reduction, alternative disinfectants, demineralization, lime-softening, and new and emerging technologies. (Prerequisites: 527-130 Groundwater Supply and Distribution; 527-131 Surface Water Supply and Treatment)

527-171 Water Quality Internship - 3 Crs. Provides an on-the-job learning experience. With direction of an employer and supervision of a Moraine Park instructor, the intern performs duties of a water/wastewater operator in a water/wastewater facility. The intern spends

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216 hours working in a municipal, industrial or environmental setting. (Prerequisites: 527-100 Introduction to Wastewater Treatment; 527-103 Conventional Wastewater Treatment; 527-130 Groundwater Supply and Distribution)

527-173 Water Quality Research - 3 Crs.

Designed as an alternative learning experience for students who are unable to secure an internship. Provides students the opportunity to work in collaboration with the course instructor to design and develop a project that utilizes concepts learned in program courses. Projects may include research, service learning, and other options that will expand the student's skill and knowledge in program competencies, goals and concepts. (Prerequisites: 527-100 Introduction to Wastewater Treatment; 527-103 Conventional Wastewater Treatment; 527-130 Groundwater Supply and Distribution; Instructor/Dean approval)

530-120 Careers in Allied Health - 3 Crs.

Explores career possibilities within the health-care industry. Examines the characteristics and skills needed for a wide range of careers in healthcare. Students also gain perspective about what it takes to be an effective team member working in healthcare. Focuses on allied health-care careers in therapeutic services, diagnostic services, health informatics, support services, and biotechnology research and development. 530-160 Healthcare Informatics – 4 Crs. Emphasizes the role of information technology in healthcare through an investigation of the electronic health record (EHR), business, and health information software applications. Students develop skills to assist in information systems design and implementation. (Prerequisites: 103-181 Microsoft Access; 501-107 Introduction to Healthcare Computing; 530-176 Health Data Management)

530-161 Health Quality Management - 3 Crs.

Explores the programs and processes used to manage and improve healthcare quality. Addresses regulatory requirements as related to performance measurement, assessment, and improvement, required monitoring activities, risk management and patient safety, utilization management, and medical staff credentialing. Emphasizes the use of critical thinking and data analysis skills in the management and reporting of data. (Prerequisite: 530-177 Healthcare Stats and Research)

530-176 Health Data Management - 2 Crs.

Introduces the use and structure of healthcare data elements, data sets, data standards, their relationships to primary and secondary record systems and health information processing. (Prerequisite: Completion of or concurrent enrollment in 530-181 Introduction to the Health Record; test scores must be met)

530-177 Healthcare Stats and Research - 2 Crs.

Explores the management of medical data for statistical purposes. Focuses on descriptive statistics, including definitions, collection, calculation, compilation and display of numerical data. Vital statistics, registries and research are examined. (Prerequisite: 530-176 Health Data Management; test scores must be met)

530-178 Healthcare Law and Ethics - 2 Crs.

Examines regulations for the content, use, confidentiality, disclosure and retention of health information. An overview of the legal system and ethical issues are addressed. (Prerequisite: 530-176 Health Data Management; test scores must be met)

530-181 Introduction to the Health Record - 1 Cr.

Prepares students to illustrate the flow of health information in various health care delivery systems and within the health information department. Prepares students to retrieve data from health records. Professional ethics, confidentiality and security of information are emphasized. (Prerequisite: Completion of or concurrent enrollment in 890-101 College 101; test scores must be met)

530-182 Human Diseases for the Health

Professions - 3 Crs. Focuses on the common diseases of each body system as encountered in all types of health care settings by health information professionals. Emphasizes understanding the etiology (cause), signs and symptoms, diagnostic tests and treatment (including pharmacologic) of each disease. (Prerequisites: Completion of or concurrent enrollment in 501-101 Medical Terminology; 806-189 Basic Anatomy or 806-177 General Anatomy and Physiology)

530-184 CPT Coding - 3 Crs.

Prepares students to assign CPT codes, supported by medical documentation, with entry level proficiency. Students apply CPT instructional notations, conventions, rules, and official coding guide-

lines when assigning CPT codes to case studies and actual medical record documentation. (Prerequisites: Completion of or concurrent enrollment in 530-112 Disease Process and Treatment or 530-182 Human Diseases for the Health Professions; 530-181 Introduction to the Health Record)

530-185 Healthcare Reimbursement - 2 Crs.

Prepares students to compare and contrast health care payers, illustrate the reimbursement cycle and to comply with regulations related to fraud and abuse. Students assign Diagnosis Related Groups (DRGs), Ambulatory Payment Classifications (APCs) and Resource Utilization Groups (RUGs) with entry-level proficiency using computerized encoding and grouping software. (Prerequisites: 530-197 ICD Diagnosis Coding. Completion of or concurrent enrollment in 530-184 CPT Coding; 530-199 ICD Procedure Coding)

530-193 Healthcare Quality Management - 2 Crs.

Explores the programs and processes used to maintain quality in healthcare. Addresses regulatory requirements as related to quality improvement, utilization (case) management, risk management and medical staff credentialing through the use of quality improvement methodologies and tools. (Prerequisite: 530-177 Healthcare Stats and Research)

530-194 HIM Organizational Resources - 2 Crs.

A study of the principles of management to include planning, organizing, human resource management, directing and controlling as related to the health information department. (Prerequisite: Completion of or concurrent enrollment in 530-161 Health Quality Management or 530-193 Healthcare Quality Management)

530-195 Applied Coding - 2 Crs.

Prepares students to assign ICD and CPT/HCPCS codes supported by medical documentation with intermediate level of proficiency. Students will prepare appropriate physician queries in accordance with compliance guidelines and will assign codes to optimize appropriate reimbursement. (Prerequisite: Completion of or concurrent enrollment in 530-185 Healthcare Reimbursement)

530-196 Professional Practice 1 - 3 Crs. The first of a two-semester sequence of supervised

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clinical experiences in health care facilities. Provides application of previously acquired skills and knowledge with clinical experiences in the technical procedures of health record systems and discussion of clinical situations. (Prerequisites: 530-178 Healthcare Law and Ethics. Completion of or concurrent enrollment in 530-177 Healthcare Stats and Research; 530-183 ICD Coding or 530-197 ICD Diagnosis Coding; 530-184 CPT Coding; criminal background check; proof of immunizations)

530-197 ICD Diagnosis Coding - 3 Crs.

Prepares students to assign ICD diagnosis codes supported by medical documentation with entry-level proficiency. Students apply instructional notations, conventions, rules and official coding guidelines when assigning ICD diagnosis codes to case studies and actual medical record documentation. (Prerequisites: Completion of or concurrent enrollment in 530-112 Disease Process and Treatment or 530-182 Human Diseases for the Health Professions; 530-181 Introduction to the Health Record)

530-198 Professional Practice 2 - 3 Crs.

The second of a two-semester sequence of supervised technical and managerial clinical experiences in health care facilities. Provides application of previously acquired skills and knowledge, discussion of clinical situations, and preparation for the certification examination and pregraduation activities. (Prerequisites: 530-196 Professional Practice 1. Completion of or concurrent enrollment in 530-160 Healthcare Informatics or 530-190 Healthcare Information Systems; 530-194 HIM Organizational Resources; 530-195 Applied Coding. Criminal background check update; proof of immunizations; should be taken in semester of graduation)

530-199 ICD Procedure Coding - 2 Crs.

Prepares students to assign ICD procedure codes supported by medical documentation with entry-level proficiency. Students apply instructional notations, conventions, rules and official coding guidelines when assigning ICD procedure codes to case studies and actual medical record documentation. (Prerequisites: Completion of or concurrent enrollment in 530-112 Disease Process and Treatment or 530-182 Human Diseases for the Health Professions; 530-181 Introduction to the Health Record)

531-301 Emergency Medical Technician - 5 Crs.

Students gain skills to assess a scene for hazards, assess both sick and injured patients, apply needed care, and transport patients to appropriate facilities. Includes training in WMD Hazardous Material, First Responder, Terrorism and Weapons of Mass Destruction. (Prerequisites: Students will need current Health Care Provider CPR certification or equivalent; criminal background check; proof of immunizations for ride alongs. Students must be 18 years of age at the conclusion of the course to be eligible for licensure)

531-304 Advanced EMT - 4 Crs.

Students gain skills in IV access and fluid therapy as well as administration of aspirin, 50% dextrose, naran, atrovent, epinephrine and nitroglycerine. Meets state Advanced EMT licensure requirements. A State of Wisconsin EMT - License is required to enroll in this course. (Prerequisite: 531-301 Emergency Medical Technician)

531-465 Heartsaver First Aid/CPR - .05 -

.20 Cr. Provides training for adults, children and infants in CPR and FBAO skills and skills in splinting, wound care and bandaging. This course meets the requirements for apprenticeship.

531-911 EMS Fundamentals - 2 Crs.

Provides paramedic students with comprehensive knowledge of EMS systems, safety, well-being, legal issues, and ethical issues, with the intended outcome of improving the health of EMS personnel, patients, and the community. Students obtain fundamental knowledge of public health principles and epidemiology as related to public health emergencies, health promotion, and illness/injury prevention. Introduces students to comprehensive anatomical and medical terminology and abbreviations, fostering the development of effective written and oral communications with colleagues and other healthcare professionals. (Prerequisites: WI DHS EMS-licensed EMT; EMT-Paramedic or Paramedic Technician program admission; 103-159 Computer Literacy - Microsoft Office; 531-301 Emergency Medical Technician; 890-101 College 101. Concurrent enrollment in 531-912 Paramedic Medical Principles; 531-913 Patient Assessment Principles; 531-914 Prehospital Pharmacology; 531-915 Paramedic Respiratory Management; 531-916 Paramedic Cardiology; 531-917 Paramedic Clinical Field 1)

531-912 Medical Principles - 4 Crs. Addresses the complex depth of anatomy, physiology, and pathophysiology of major human systems while also introducing paramedic students to the topics of shock, immunology, and bleeding. (Prerequisites: Concurrent enrollment in 531-911 EMS Fundamentals; 531-913 Patient Assessment Principles; 531-914 Prehospital Pharmacology; 531-915 Paramedic Respiratory Management; 531-916 Paramedic Cardiology; 531-917 Paramedic Clinical Field 1)

531-913 Patient Assessment Principles - 3 Crs.

Teaches paramedic students to integrate scene and patient assessment findings with knowledge of epidemiology and pathophysiology to form a field impression. By utilizing a structured and organized assessment process with knowledge of anatomy, physiology, pathophysiology, life span development, and changes that occur to the human body with time, the students will learn to develop a list of differential diagnoses through clinical reasoning, along with the ability to modify the assessment as necessary to formulate a treatment plan for their patients. (Prerequisites: Concurrent enrollment in 531-911 EMS Fundamentals; 531-912 Paramedic Medical Principles; 531-914 Prehospital Pharmacology; 531-915 Paramedic Respiratory Management; 531-916 Paramedic Cardiology; 531-917 Paramedic Clinical Field 1)

531-914 Prehospital Pharmacology - 3 Crs.

Provides paramedic students with the comprehensive knowledge of pharmacology required to formulate and administer a pharmacological treatment plan intended to mitigate emergencies and improve the overall health of the patient. (Prerequisites: Concurrent enrollment in 531-911 EMS Fundamentals; 531-912 Paramedic Medical Principles; 531-913 Patient Assessment Principles; 531-915 Paramedic Respiratory Management; 531-916 Paramedic Cardiology; 531-917 Paramedic Clinical Field 1)

531-915 Paramedic Respiratory Management - 2 Crs.

Teaches paramedic students to integrate complex knowledge of anatomy, physiology, and pathophysiology into the assessment to develop and implement a treatment plan with the goal of assuring a patient airway, adequate mechanical ventilation, and respiration for patients of all ages. Specific knowledge pertaining to the respiratory system is also provided to ensure the student is prepared to formulate a

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field impression and implement a comprehensive treatment plan for a patient with a respiratory complaint. (Prerequisites: Concurrent enrollment in 531-911 EMS Fundamentals; 531-912 Paramedic Medical Principles; 531-913 Patient Assessment Principles; 531-914 Prehospital Pharmacology; 531-916 Paramedic Cardiology; 531-917 Paramedic Clinical Field 1)

531-916 Paramedic Cardiology - 4 Crs.

Teaches paramedic students to integrate assessment findings with principles of cardiovascular anatomy, physiology, epidemiology, and pathophysiology to formulate a field impression and implement a comprehensive treatment plan for a patient with a cardiovascular complaint. (Prerequisites: Concurrent enrollment in 531-911 EMS Fundamentals; 531-912 Paramedic Medical Principles; 531-913 Patient Assessment Principles; 531-914 Prehospital Pharmacology; 531-915 Paramedic Respiratory Management; 531-917 Paramedic Clinical Field 1)

531-917 Paramedic Clinical Field 1 - 3 Crs.

Provides students with the opportunity to enhance learning through the practice of paramedicine in field and health care environment experiences with actual patients under the supervision of instructors or approved preceptors. Students may have the opportunity to participate in formal high-fidelity human patient simulator experiences as a part of this course. (Prerequisites: Concurrent enrollment in 531-911 EMS Fundamentals; 531-912 Paramedic Medical Principles; 531-913 Patient Assessment Principles; 531-914 Prehospital Pharmacology; 531-915 Paramedic Respiratory Management; 531-916 Paramedic Cardiology)

531-918 Advanced Resuscitation - 1 Cr. By teaching Advanced Cardiac Life Support (ACLS) and Pediatric Advanced Life Support (PALS) methodologies and protocols, this course prepares paramedic students in the integration of comprehensive knowledge of causes and pathophysiology into the management of shock, respiratory failure, respiratory arrest, cardiac arrest, and peri-arrest states with an emphasis on early intervention to prevent respiratory and/or cardiac arrest if possible. (Prerequisites: 531-916 Paramedic Cardiology; 531-917 Paramedic Clinical Field 1. Concurrent enrollment in 531-919 Paramedic Medical Emergencies; 531-920 Paramedic Trauma; 531-921 Special Patient Populations; 531-922

EMS Operations; 531-923 Paramedic Capstone; 531-924 Paramedic Clinical Field 2)

531-919 Paramedic Medical Emergencies - 4 Crs. Teaches paramedic students to integrate assessment findings with principles of anatomy, physiology, epidemiology, and pathophysiology to formulate a field impression and implement a comprehensive treatment plan for a patient with a medical complaint. (Prerequisites: Concurrent enrollment in 531-918 Advanced Resuscitation; 531-920 Paramedic Trauma; 531-921 Special Patient Populations; 531-922 EMS Operations; 531-923 Paramedic Capstone; 531-924 Paramedic Clinical Field 2)

531-920 Paramedic Trauma - 3 Crs. Teaches paramedic students to integrate assessment findings with principles of anatomy, physiology, epidemiology, and pathophysiology to formulate a field impression and implement a comprehensive treatment plan for an acutely injured patient. (Prerequisites: Concurrent enrollment in 531-918 Advanced Resuscitation; 531-919 Paramedic Medical Emergencies; 531-921 Special Patient Populations; 531-922 EMS Operations; 531-923 Paramedic Capstone; 531-924 Paramedic Clinical Field 2)

531-921 Special Patient Populations - 3 Crs. Teaches paramedic students to integrate assessment findings with principles of anatomy, physiology, epidemiology, and pathophysiology to formulate a field impression and implement a comprehensive treatment plan for patients with special needs. Gynecological emergencies, along with special considerations in trauma are also included within this course. (Prerequisites: Concurrent enrollment in 531-918 Advanced Resuscitation; 531-919 Paramedic Medical Emergencies; 531-920 Paramedic Trauma; 531-922 EMS Operations; 531-923 Paramedic Capstone; 531-924 Paramedic Clinical Field 2)

531-922 EMS Operations - 1 Cr. Provides paramedic students with the knowledge of operational roles and responsibilities to ensure patient, public, and EMS personnel safety. (Prerequisites: Concurrent enrollment in 531-918 Advanced Resuscitation; 531-919 Paramedic Medical Emergencies; 531-920 Paramedic Trauma; 531-921 Special Patient Populations; 531-923 Paramedic Capstone; 531-924 Paramedic Clinical Field 2)

531-923 Paramedic Capstone - 1 Cr.

Provides students with a final opportunity to incorporate their cognitive knowledge and psychomotor skills through labs and scenario based practice and evaluations prior to taking the National Registry written and practical examinations. Technical skills attainment (TSA) for each student will be compiled and/or documented with in this course as required by DHS-approved paramedic curriculum. (Prerequisites: Concurrent enrollment in 531-918 Advanced Resuscitation; 531-919 Paramedic Medical Emergencies; 531-920 Paramedic Trauma; 531-921 Special Patient Populations; 531-922 EMS Operations; 531-924 Paramedic Clinical Field 2)

531-924 Paramedic Clinical Field 2 - 4 Crs.

Provides students with the opportunity to enhance his or her learning through the practice of paramedicine in field and health care environment experiences with actual patients under the supervision of instructors or approved preceptors. Students may have the opportunity to participate in formal high-fidelity human patient simulator experiences as a part of this course. Successful completion of this course requires the student to meet all clinical and field competency requirements at the paramedic level as defined by WI DHS EMS. (Prerequisites: Concurrent enrollment in 531-918 Advanced Resuscitation; 531-919 Paramedic Medical Emergencies; 531-920 Paramedic Trauma; 531-921 Special Patient Populations; 531-922 EMS Operations; 531-923 Paramedic Capstone)

533-126 Beginning American Sign Language - 3 Crs. Introduces the fundamentals of American Sign Language (ASL) used by the deaf community, including basic vocabulary, syntax, fingerspelling and grammatical nonmanual signals. Develops gestural skills as a foundation for ASL enhancement. Introduces cultural knowledge and increases appreciation of the deaf community.

533-127 Intermediate American Sign Language - 3 Crs. Emphasizes fundamentals of American Sign Language (ASL) used by the deaf community. Vocabulary and sentence structures needed to communicate in common life situations are developed. Explores cultural knowledge and increases appreciation of the deaf community. (Prerequisite: 533-126 Beginning American Sign Language)

536-110 Pharmaceutical Calculations (Lakeshore Technical College Course) - 3 Crs.

Prepares the student to enlarge and reduce formulas and solve proportions, dilutions, alligations, and other calculations pertinent to the preparation of pharmaceuticals using metric, apothecary, avoirdupois, and household measuring systems. (Condition: 315361 Pharmacy Technician admission requirements met)

536-113 Pharmacy Business Applications (Lakeshore Technical College Course) - 3 Crs.

Prepares the student to utilize pharmaceutical business terminology, procedures, customer service, recordkeeping, purchasing procedures, inventory control systems, pricing, merchandising, reference materials, ethics, roles, responsibilities, and relationships with patients and coworkers. (Condition: 315361 Pharmacy Technician program requirements met)

536-115 Pharmacy Law (Lakeshore Technical College Course) - 2 Crs.

Introduces the student to federal and state regulations that apply to pharmacy practice. (Condition: 315361 Pharmacy Technician admissions requirements met)

536-120 Fundamentals of Reading Prescriptions (Lakeshore Technical College Course) - 1 Cr.

Prepares the student to work in a community or hospital pharmacy by exploring the role of a pharmacy technician within the healthcare team; examining each step in the prescription filling process; and identifying the top 200 drugs by brand and generic name and therapeutic class. (Condition: 315361 Pharmacy Technician admission requirements met)

536-122 Pharmacology (Lakeshore Technical College Course) - 3 Crs.

Enhances the student's ability to act and react appropriately in the pharmacy by learning how drugs work through examination of the anatomy, physiology, pathophysiology, and drug therapy for each of the major systems. (Condition: 315361 Pharmacy Technician admission requirements met)

536-125 Pharmacy Drug Distribution Systems (Lakeshore Technical College Course) - 2 Crs.

Introductory study of the basic drug distribution systems used in community and institutional pharmacy, including automation technology, pharmacist and pharmacy technician roles, and dispensing considerations.

(Condition: 315361 Pharmacy Technician admission requirements met)

536-126 Pharmacy Parenteral Admixtures (Lakeshore Technical College Course) - 3 Crs.

Provides the student with the skills to utilize aseptic technique in vertical and horizontal laminar flow hoods for preparation of solutions and medications to be administered intravenously, intramuscularly, subcutaneously, and intradermally to patients. (Prerequisites: 10536110 Pharmaceutical Calculations. Condition: 315361 Pharmacy Technician admission requirements met)

536-139 Pharmacy Community Clinical (Lakeshore Technical College Course) - 3 Crs.

Provides hands-on experience in a community pharmacy for 108 hours during quarter two. Areas of instruction include interpretation of prescriptions, entering prescriptions on computer, patient profiles, correctly filling and labeling prescriptions, billing patient and third parties, customer service, over-the-counter medications, purchasing, checking in deliveries, and inventory control, compounding and patient confidentiality. (Prerequisites: 10536110 Pharmaceutical Calculations; 10536120 Fundamentals of Reading Prescriptions; 10501102 Health Insurance and Reimbursement; 10536113 Pharmacy Business Applications. Condition: 315361 Pharmacy Technician program requirements met)

536-141 Pharmacy Computer Lab (Lakeshore Technical College Course) - 2 Crs.

Expands the student's ability to enter prescription orders and familiarizes student with a variety of pharmacy software features, including updating pharmacy data bases, running reports, and billing. This course is offered in a self-paced format. (Prerequisites: 10536120 Fundamentals of Reading Prescriptions. Condition 315361 Pharmacy Technician admissions requirements met)

536-143 Pharmacy Hospital Clinical (Lakeshore Technical College Course) - 2 Crs.

Provides the student with the skills to prepare parenteral admixtures, fill medication carts and unit-dose drawers, control inventory, package medications, and maintain patient records in the hospital setting. (Prerequisites: 10536139 Pharmacy Community Clinical and 10536110 Pharmacy Calculations. Corequisite: 10536126 Pharmacy Parenteral Admixtures and 10536141 Pharmacy

Computer Lab. Condition 315361 Pharmacy Technician admissions requirements met)

543-101 Nursing Fundamentals - 2 Crs.

Focuses on basic nursing concepts that the beginning nurse will need to provide care to diverse client populations. Current and historical issues impacting nursing will be explored within the scope of nursing practice. The nursing process will be introduced as a framework for organizing the care of clients with alterations in cognition, elimination, comfort, grief/loss, mobility, integument and fluid/electrolyte balance. (Prerequisites: 806-179 Advanced Anatomy and Physiology. Completion of or concurrent enrollment in 103-159 Computer Literacy - Microsoft Office; 890-101 College 101)

543-102 Nursing Skills - 3 Crs. Focuses on development of clinical skills and physical assessment across the lifespan. Includes mathematic calculations and conversions related to clinical skills, blood pressure assessment, aseptic technique, wound care, oxygen administration, tracheostomy care, suctioning, management of enternal tubes, basic medication administration, glucose testing, enemas, ostomy care and catheterization. Also includes techniques related to obtaining a health history and basic physical assessment skills using a body-systems approach. (Prerequisites: 543-300 Nursing Assistant; 806-179 Advanced Anatomy and Physiology)

543-103 Nursing Pharmacology - 2 Crs.

Introduces the principles of pharmacology, including drug classifications and their effects on the body, and emphasizes the use of the nursing process when administering medications. (Prerequisite: 806-179 Advanced Anatomy and Physiology)

543-104 Nursing: Introduction to Clinical Practice - 2 Crs.

Emphasizes basic nursing skills and application of the nursing process in meeting the needs of diverse clients across the lifespan. Focuses on performing basic nursing skills, the formation of nurse-client relationships, communication, data collection, documentation and medication administration. (Prerequisites: Completion of or concurrent enrollment in 543-101 Nursing Fundamentals; 543-102 Nursing Skills; 543-103 Nursing Pharmacology. Health requirements; criminal background check; CPR)

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543-105 Nursing Health Alterations - 3 Crs. Elaborates upon the basic concepts of health and illness as presented in Nursing Fundamentals. Students apply theories of nursing in the care of clients through the lifespan, utilizing problem solving and critical thinking. Students also study conditions affecting different body systems and apply therapeutic nursing interventions. Concepts of leadership, team building and scope of practice are also introduced. (Prerequisite: 543-104 Nursing: Introduction to Clinical Practice)

543-106 Nursing Health Promotion - 3 Crs. Focuses on topics related to health promotion for individuals and families throughout the lifespan. Covers the developing family, which includes reproductive issues, pregnancy, labor and delivery, postpartum, the newborn, and the child. Explores the spectrum of healthy families to discern patterns associated with adaptive and maladaptive behaviors applying mental health principles. Emphasizes teaching and supporting healthy lifestyle choices for individuals of all ages. Nutrition, exercise, stress management, empowerment and risk reduction practices are highlighted. Study of the family will cover dynamics, functions, discipline styles and stages of development. (Prerequisites: 543-104 Nursing: Introduction to Clinical Practice; 809-188 Developmental Psychology)

543-107 Nursing: Clinical Care Across the Lifespan - 2 Crs. Applies nursing concepts and therapeutic interventions to clients across the lifespan. Provides an introduction to concepts of teaching and learning. Emphasizes extending care to include the family. (Prerequisites: Completion of or concurrent enrollment in 543-105 Nursing Health Alterations. Health requirements; criminal background check; CPR)

543-108 Nursing: Introduction to Clinical Care Management - 2 Crs. This clinical experience applies nursing concepts and therapeutic nursing interventions to groups of clients across the lifespan. It also provides an introduction to leadership, management and team building. (Prerequisites: Completion of or concurrent enrollment in 543-106 Nursing Health Promotion. Health requirements; criminal background check; CPR)

543-109 Nursing: Complex Health Alterations 1 - 3 Crs. Prepares students to

expand knowledge from previous courses in caring for clients across the lifespan with alterations in cardiovascular, respiratory, endocrine and hematologic systems, as well as clients with fluid/electrolyte and acid-base imbalance and alterations in comfort. (Prerequisites: 543-105 Nursing Health Alterations; 543-106 Nursing Health Promotion; 543-107 Nursing: Clinical Care Across the Lifespan; 543-108 Nursing: Introduction to Clinical Care Management. Completion of or concurrent enrollment in 806-197 Microbiology. LPN to ADN Progression students are required to have completed 543-117 Nursing Bridge to ADN)

543-110 Nursing: Mental Health and Community Concepts - 2 Crs. Focuses on the delivery of community and mental healthcare. Specific health needs of individuals, families and groups are addressed across the lifespan. Attention is given to diverse and at-risk populations. Mental health concepts concentrate on adaptive/maladaptive behaviors and specific mental health disorders. Community resources are examined in relation to specific types of support offered to racial, ethnic and economically diverse individuals and groups. (Prerequisites: 543-105 Nursing Health Alterations; 543-106 Nursing Health Promotion; 543-107 Nursing: Clinical Care Across the Lifespan; 543-108 Nursing: Introduction to Clinical Care Management. Completion of or concurrent enrollment in 806-197 Microbiology. LPN to ADN Progression students are required to have completed 543-117 Nursing Bridge to ADN)

543-111 Nursing: Intermediate Clinical Practice - 3 Crs. Develops the RN role when working with clients with complex healthcare needs. Focuses on developing skills needed for managing multiple clients across the lifespan and priorities. Using the nursing process, students gain experience in adapting nursing practice to meet the needs of clients with diverse needs and backgrounds. (Prerequisites: 543-112 Nursing Advanced Skills. Completion of or concurrent enrollment in 543-109 Nursing: Complex Health Alterations 1; 543-110 Nursing: Mental Health and Community Concepts. Health requirements; criminal background check; CPR)

543-112 Nursing Advanced Skills - 1 Cr. Focuses on the development of advanced clinical skills. Content includes advanced IV skills,

blood product administration, chest tube systems, basic EKG interpretation and nasogastric/feeding tube insertion. (Prerequisites: 543-105 Nursing Health Alterations; 543-106 Nursing Health Promotion; 543-107 Nursing: Clinical Care Across the Lifespan; 543-108 Nursing: Introduction to Clinical Care Management. LPN to ADN Progression students are required to have completed 543-117 Nursing Bridge to ADN)

543-113 Nursing: Complex Health Alterations 2 - 3 Crs. Prepares students to expand knowledge and skills from previous courses in caring for clients across the lifespan with alterations in the immune, neurosensory, musculoskeletal, gastrointestinal, hepatobiliary, renal/urinary and reproductive systems. Focuses on management of care for clients with high-risk perinatal conditions, high-risk newborns and the ill child. Synthesis and application of previously learned concepts will be evident in the management of clients with critical/life-threatening situations. (Prerequisite: 543-111 Nursing: Intermediate Clinical Practice)

543-114 Nursing: Management and Professional Concepts - 2 Crs. Covers nursing management and professional issues related to the role of the RN. Emphasis is placed on preparing for the RN practice. (Prerequisite: 543-111 Nursing: Intermediate Clinical Practice)

543-115 Nursing: Advanced Clinical Practice - 3 Crs. Provides an opportunity for students to integrate concepts from all previous courses in the management of groups of clients facing complex health alterations across the lifespan. Students will have the opportunity to further develop critical thinking skills using the nursing process in making clinical decisions. Continuity of care through interdisciplinary collaboration is emphasized. (Prerequisites: Completion of or concurrent enrollment in 543-113 Nursing: Complex Health Alterations 2. Health requirements; criminal background check; CPR)

543-116 Nursing Clinical Transition - 2 Crs. Prepares students to assume the role of graduate nurse. Promotes clinical decision making, delegation and collaboration to achieve client and organizational outcomes. Continued professional development is fostered. (Prerequisites: 543-115 Nursing: Advanced Clinical Practice.

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Completion of or concurrent enrollment in 543-114 Nursing: Management and Professional Concepts. Health requirements; criminal background check; CPR)

543-117 Nursing Bridge to ADN - 2 Crs.

Emphasizes the transition from year one of the nursing program to year two of the ADN program. Focuses on competencies that enhance student success in year two of the ADN program. Students must have Wisconsin Licensure as a Practical Nurse and acceptance into the LPN to ADN Progression program OR current enrollment in second semester of the ADN program with intent to continue into the second year. (Prerequisites: Completion of or concurrent enrollment in 543-107 Nursing: Clinical Care Across the Lifespan; 543-108 Nursing: Introduction to Clinical Care Management. Dean consent; acceptance in LPN to ADN Progression program)

543-120 Pathophysiology for Nurses - 3 Crs.

Examines basic concepts of alterations in physiology of the human body. These alterations are the basis for disease states in humans. Serves as a foundation to increase knowledge of diseases that will be further studied in the core nursing courses. Covers the cell, injury and inflammation, immunity, fluid and electrolyte balance, acid-base balance, abnormal cell growth, and other body system alterations. (Prerequisite: 543-104 Nursing Introduction to Clinical Practice)

543-121 Jumpstart Critical Thinking - 1 Cr.

Promotes critical thinking skills to improve your nursing practice. Examines the nursing process, focused health assessments, simulation experiences and test-taking strategies. (Prerequisite: 543-102 Nursing Skills)

543-122 Integrated Nursing Concepts - 2 Crs.

Focuses on basic nursing concepts that prepare for professional nursing examinations including the Pre-Entrance RN Examination. Verbal skills, reading comprehension, mathematics and science will be of focus for review. Assists with developing test-taking strategies and a study plan for nursing examinations. The course also explores the nursing profession as a career.

543-125 Survival Skills for Nursing Students - 1 Cr. Assists nursing students in meeting the challenges of being a nursing student. Students

gain practical tips and information to help in coping with and succeeding in the nursing program.

543-160 Nursing Assistant Instructor Training - 1 Cr.

Examines effective teaching strategies to use for the adult student. Emphasizes state and college requirements for teaching the nursing assistant course. Discusses different types of lesson plans and learning activities that can be used to reach students with a variety of learning styles. (Prerequisite: Students must have a State of Wisconsin Registered Nurse License and a minimum of two years' work experience as an RN, with a minimum of one year experience in long-term care or home healthcare working with elderly clients).

543-191 Interpreting Diagnostic Studies 1 - 1 Cr.

Focuses on the interpretation of diagnostic studies used for disorders of the genitourinary, gastrointestinal, reproductive, cardiac, respiratory, endocrine, and musculoskeletal systems, and the immunology and hematology of the human body with emphasis on the application of the nursing process across the lifespan. (Prerequisite: 543-105 Nursing Health Alterations or RN, GN or LPN status)

543-192 Interpreting Diagnostic Studies 2 - 1 Cr.

Focuses on the interpretation of diagnostic studies of fluids and electrolytes, the hematology, endocrine, cardiovascular, and respiratory systems of the human body with emphasis on the application of the nursing process across the lifespan. (Prerequisite: Completion of or concurrent enrollment in 543-109 Nursing: Complex Health Alterations 1 or RN, GN or LPN status)

543-193 Interpreting Diagnostic Studies 3 - 1 Cr.

Focuses on interpretation of diagnostic studies of the reproductive, neurological, gastrointestinal, genitourinary and musculoskeletal systems, and infectious disease and cancer with emphasis on the application of the nursing process across the lifespan. (Prerequisite: Completion of or concurrent enrollment in 543-113 Nursing: Complex Health Alterations 2 or RN, GN or LPN status)

543-194 Nurse Externship - 2 Crs. Provides the student with on-the-job nursing experiences in various work settings. Works under the

supervision of a preceptor in a chosen health-care facility. Enhances insight into the nursing profession and reinforces nursing skills. Allows students to analyze different policies, procedures, nursing styles and facility standards. (Prerequisites: LPN externs must have completed 543-104 Nursing: Introduction to Clinical Practice. ADN students must have completed 543-107 Nursing: Clinical Care Across the Lifespan; 543-108 Nursing: Introduction to Clinical Care Management or dean consent)

543-300 Nursing Assistant - 3 Crs. Prepares men and women for work in the healthcare field as nursing assistants. Student nursing assistants learn basic nursing and communication skills. Upon completion of the course, students are eligible to take the exam for registration on the Wisconsin Nurse Aide Registry. This course is a prerequisite for entrance into the Nursing - Associate Degree With a Practical Nursing Exit Point program. (Prerequisites: Students must be 16 years old; completed Health Information form; criminal background check)

543-302 Nursing Assistant Advanced - 2 Crs.

Intermediate-level nursing assistant skills prepare graduates for employment in acute care settings as a nursing assistant. Students should have one year of employment as a nursing assistant. (Prerequisites: 543-333 Basic Nursing Assistant or 543-300 Nursing Assistant. Active on the Wisconsin Nurse Aide Registry)

543-334 Acute Care - Nursing Assistant - 2 Crs.

Intermediate-level nursing assistant skills prepare graduates for employment in acute care settings as a nursing assistant. Students should have one year of employment as a nursing assistant. (Prerequisites: 543-333 Basic Nursing Assistant or 543-300 Nursing Assistant. Active on the Wisconsin Nurse Aide Registry)

546-100 Wellness, Health and Healing - 3 Crs.

Presents a modern approach to wellness and healing. Covers wellness assessment tools, nutrition, fitness and exercise, stress management, disease, and methods of healing along with the development of a personal wellness plan. (Prerequisite: Test score required to register)

546-120 Advanced Wellness Concepts - 3 Crs.

Presents a continuation of concepts learned in Wellness, Health and Healing. Students learn

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how to address nutritional needs, compare diets, design exercise programs, and use stress management techniques. (Prerequisite: 546-100 Wellness, Health and Healing)

546-121 Wellness Coaching and Promotion - 3 Crs. Presents a comprehensive approach to supporting wellness through wellness coaching. Students use assessment tools and coaching strategies to encourage and support others in designing and participating in wellness programs for individuals and companies. (Prerequisite: 546-120 Advanced Wellness Concepts)

550-106 Physiological Complications and Psychopharmacology - 3 Crs. Examines the physiological, neurophysiological and biological effects of alcohol and other drugs. Examines the theories regarding the etiology of substance use disorders. Examines the context of drugs and abuse in American culture. You will list the classes of drugs, distinguish the classification of drugs, identify signs and symptoms of abuse, and examine the diagnostic criteria for substance use disorders. An overview of treatment and prevention will be addressed. Highly recommend 801-136 English Composition 1 prior to this course.

550-112 Client Rights, Confidentiality and Ethics - 3 Crs. Gives students the basis for formulating ethical decisions within the broad limits of professional codes and diverse theoretical positions in order to further the best interests of their clients. Introduces students to the current statutes, regulations and judicial decisions that govern the professional practice of substance use disorder counseling. Highly recommend 801-136 English Composition 1 prior to this course.

550-121 Introduction to Substance Abuse Treatment - 4 Crs. Explores the core components of substance use disorder treatment including the history and development of treatment, treatment modalities, the continuum of care, treatment outcomes and elements of effective treatment. Students apply the theory, skills, knowledge and attitudes associated with the competencies in the practice dimensions and the 12 core functions of substance use disorder counseling. (Prerequisites: 550-112 Client Rights, Confidentiality and Ethics; 550-125 Counseling Skills and Practice)

550-125 Counseling Skills and Practice - 3 Crs. Provides an introduction to basic counseling skills and allows students to practice basic counseling skills such as attending, paraphrasing, reflection of feelings, summarizing, probing, reflection of meaning, self-disclosure, immediacy, confrontation, information sharing, goal setting and implementing individualized plans.

550-131 Crisis Management - 2 Crs. Develops the students' skills of identifying stressors in crisis situations and in developing and applying intervention techniques. Hands-on activities are designed to develop skills for intervening with crisis situations and determining referral to community resources. (Prerequisites: 550-112 Client Rights, Confidentiality and Ethics; 550-125 Counseling Skills and Practice)

550-135 Diversity in Counseling - 3 Crs. Exposes students to unique and genuine characteristics of America's special populations. Provides strategies for working with clients from these populations. Examines the uniqueness of each population and the resources and services available. Designed so students improve their effectiveness as AODA counselors in attitudes, information and self-understanding of special populations. Students explore their own cultural backgrounds and develop the knowledge, skills and attitudes of cultural competence.

550-140 Counseling Theory and Practice - 3 Crs. Integrates the theory and techniques of various psychotherapies with basic counseling skills, professional and ethical standards, and personal counseling style. Case studies, classroom discussions and simulated counseling experiences provide opportunities for students to apply counseling theory to simulated counseling experiences. Highly recommend 801-136 English Composition 1 prior to this course. (Prerequisites: 550-112 Client Rights, Confidentiality and Ethics; 550-125 Counseling Skills and Practice)

550-141 Group Facilitation - 3 Crs. Provides participants with the skills and knowledge base for effective facilitation of groups. Actual opportunities to facilitate groups are also provided. Participants critique the group's progress and assess their effectiveness as leaders. Recommendations for skill refinement are given. (Prerequisites: 550-112 Client Rights,

Confidentiality and Ethics; 550-125 Counseling Skills and Practice)

550-142 Introduction to Community Mental Health - 3 Crs. Introduces the major diagnostic categories of mental illness, with a focus on the psychiatric management of these mental illnesses. Examines the unique treatment needs of people who have a coexisting psychiatric disorder with a substance use disorder. Highly recommend 801-136 English Composition 1 and 809-198 Introduction to Psychology prior to this course. (Prerequisite: 550-106 Physiological Complications and Psychopharmacology)

550-150 Family Systems - 3 Crs. Provides the skills needed to assess the nature of the family and how it functions as a system. Explores how systems are affected by internal and external influences such as abuse, family violence and alcohol/drug abuse. Prevention, assessment and intervention techniques are applied in the course. Highly recommend 801-136 English Composition 1 prior to this course.

550-155 AODA Internship Seminar - 3 Cr. A seminar designed as a companion course to AODA Internship I (550-156). Relates theory and principles of practice to agency field-study experience. Students learn to develop effective professional relationships with staff; effective utilization of clinical supervision; understanding of the policies, procedures and culture of a treatment agency; develop therapeutic relationships with clients; develop strategies to optimize one's internship experience; and apply the values of confidentiality and client self-determination. Students learn how their values and personal experiences affect their work with clients and begin exploring their professional identity as an AODA counselor. (Prerequisites: 550-106 Physiological Complications and Psychopharmacology; 550-112 Client Rights, Confidentiality and Ethics; 550-121 Introduction to Substance Abuse Treatment; 550-125 Counseling Skills and Practice; 550-131 Crisis Management; 550-135 Diversity in Counseling; 550-140 Counseling Theory and Practice; 550-141 Group Facilitation; 550-142 Introduction to Community Mental Health; 550-150 Family Systems; 550-160 On-Campus Talk About Alcohol. Concurrent enrollment in 550-156 AODA Internship 1)

550-156 Alcohol and Other Drug Abuse Internship 1 - 4 Crs. Demonstrates AODA counseling skills in a clinical setting. Integrates skills learned in theoretical and practical coursework to provide students with skills to work with clients in hospitals, outpatient clinical agencies and AODA group homes. (Prerequisites: 550-106 Physiological Complications and Psychopharmacology; 550-112 Client Rights, Confidentiality and Ethics; 550-121 Introduction to Substance Abuse Treatment; 550-125 Counseling Skills and Practice; 550-131 Crisis Management; 550-135 Diversity in Counseling; 550-140 Counseling Theory and Practice; 550-141 Group Facilitation; 550-142 Introduction to Community Mental Health; 550-150 Family Systems; 550-160 On-Campus Talk About Alcohol. Concurrent enrollment in 550-155 AODA Internship Seminar; criminal background check)

550-157 Alcohol and Other Drug Abuse Internship 2 - 4 Crs. Focuses on demonstrating competency in the 12 core functions and the 8 practice dimensions of substance use disorder counseling. Integrates knowledge and skills learned in theoretical and practical coursework to provide treatment services to AODA clients in inpatient and/or outpatient clinical agencies, residential treatment facilities, AODA group homes and other clinical settings that treat substance use disorders. (Prerequisites: Completion of or concurrent enrollment in 550-156 Alcohol and Other Drug Abuse Internship 1. Must be taken in the final semester; criminal background check)

550-160 On-Campus Talk About Alcohol - 1 Cr. Reduces the risk of experiencing alcohol-related health and impairment problems at any point in life. To achieve this, the course has four behavior goals: (1) increase the incidence of abstinence, (2) delay the onset of the first use of alcohol, (3) reduce high-risk drinking among those who use alcohol, and (4) motivate those who may have alcohol/drug problems to seek assistance. Highly recommend 801-136 English Composition 1 prior to this course.

550-161 Motivational Interviewing - 3 Crs. Provides an introduction on guiding principles, strategies and skills for incorporating motivational interviewing techniques in

client-centered work with clients diagnosed with substance use disorders. Introduces the foundation, theories, skills, strategies and framework for implementing a strategic approach in motivating client change. Uses an experiential model of learning including lecture, demonstration, group discussion, case studies, simulation, small group interaction, and role plays to stimulate participant's engagement and learning. (Prerequisites: 550-121 Introduction to Substance Abuse Treatment; 550-125 Counseling Skills and Practice)

601-107 Electricity and Electronics HVAC - 3 Crs. Emphasizes fundamentals of electricity and electronics with application to heating, ventilating, air conditioning and refrigeration equipment. Provides hands-on instruction in electrical-mechanical applications. Thevenin theorem and Ohm's and Watt's laws are studied, along with magnetic principles, inductance and capacitance in circuits. Identification and construction of series, parallel and combination circuits are explored through lab experiments.

601-108 Heating, Ventilation and Air Conditioning (HVAC) Schematics - 2 Crs. Develops skills in reading wiring diagrams, ladder diagrams, block diagrams, electrical and HVAC/R symbols. Focuses on interpreting electrical/electronics and HVAC/R components in a typical circuit. (Prerequisite: Completion of or concurrent enrollment in 601-107 Electricity and Electronics HVAC)

601-109 HVAC/R Code - 1 Cr. Focuses on preparing the student to sit for certification tests required by federal and state governments and the Heating, Ventilation, Air Conditioning and Refrigeration (HVAC/R) industry. Students focus on EPA refrigerant-handling exams and Industry Competency Exams (ICE). Other certification exams are also examined. The student defines goals for this class based on exam needs. (Prerequisite: Completion of or concurrent enrollment in 601-120 Fundamentals of Refrigeration)

601-116 Hydronic Environmental Systems - 3 Crs. Focuses on the installation and troubleshooting of hydronic systems, water treatment, maintenance, control devices and service tools. Hydronic balancing techniques are emphasized using pump laws, distribution balance methods procedures and use of instrumentation.

(Prerequisites: 601-123 Residential Heating Systems; 804-107 College Mathematics or 804-113 College Technical Mathematics 1A)

601-118 Air Distribution - 2 Crs. Focuses on commercial ventilation systems and air balance techniques. Develops skills relative to the importance of balancing, air quality, air measurement, fan laws, balance method and use of instrumentation. (Prerequisite: Completion of or concurrent enrollment in 804-107 College Mathematics or 804-113 College Technical Mathematics 1A)

601-119 Geothermal Heat Pumps - 2 Crs. Develops skills to identify and correct malfunctions of geothermal equipment, electrical systems, instrumentation, or controls. Includes explanation of geothermal theory and terminology, heat pumps and their components, earth loop types, efficiency comparisons, advantages, disadvantages, and comparisons to other HVAC equipment. (Prerequisites: 601-121 Refrigeration Service Techniques; 601-108 HVAC Schematics; 601-122 Residential Air Conditioning; 601-127 Fundamentals of Building Controls)

601-120 Fundamentals of Refrigeration - 2 Crs. Focuses on the fundamental principles of refrigeration, refrigerants, the refrigeration system and control devices. Develops skills and knowledge in the diagnosis and repair of air conditioning and refrigeration systems.

601-121 Refrigeration Service Techniques - 2 Crs. Develops basic skills in the use of refrigeration test instruments, tools and the application of refrigeration theory and practices to refrigeration systems. Skills applied are brazing techniques, evacuation, dehydration and charging of refrigeration systems. The effect of various metering devices is analyzed. Covers wiring of a refrigeration trainer and ways to recover refrigerant from a system using recovery machines as outlined in EPA Section 608 of the Clean Air Act. (Prerequisite: Completion of or concurrent enrollment in 601-120 Fundamentals of Refrigeration)

601-122 Residential Air Conditioning - 3 Crs. Develops skills and knowledge in the diagnosis, repair and installation of air conditioning systems. Focuses on service and installation techniques for residential systems. Simulation software and actual equipment provide trouble-

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shooting experience. (Prerequisites: 601-108 HVAC Schematics; 601-121 Refrigeration Service Techniques; 890-101 College 101. Completion of or concurrent enrollment in 103-159 Computer Literacy - Microsoft Office)

601-123 Residential Heating Systems - 3 Crs. Develops advanced skills and knowledge of installation, maintenance and servicing of residential heating systems. Covers control devices, service tools, human comfort and add-on purchases. Simulation software and actual equipment provides troubleshooting experience. (Prerequisite: 601-108 HVAC Schematics)

601-126 Residential Energy - 3 Crs. Develops skills to conduct an energy efficiency evaluation of a house by using the house-as-a-system approach. Examine comfort and safety issues for the inhabitants. Recommend heating and air conditioning equipment that matches the heating and cooling loads calculated. Students will provide a report that details corrective actions needed to prioritize energy retrofit work for the house that can be used for weatherization.

601-127 Fundamentals of Building Controls - 2 Crs. Enhances skills in schematic wiring diagram interpretation and provides instruction in the fundamental concepts of building control systems. Hands-on simulations and actual systems are used to extensively enhance the concept of control systems.

601-128 Building Control Systems Applications - 3 Crs. Enhances skills in schematic wiring diagram interpretation. Provides hands-on instruction in electro-mechanical building control, pneumatic control and electronic control of building systems. Hands-on simulators and actual systems are used to extensively enhance concepts of control systems. (Prerequisites: 601-108 HVAC Schematics; 601-127 Fundamentals of Building Controls)

601-129 Commercial Food Service Refrigeration - 3 Crs. Focuses on advanced principles of refrigeration, refrigerants, the refrigeration system, control devices and service tools as they apply to food service equipment. Reviews basic refrigeration, the accessory devices that make up commercial refrigeration systems, design concepts, defrost system, system configurations and operating principles.

(Prerequisite: 601-121 Refrigeration Service Techniques)

601-130 Supermarket Refrigeration - 3 Crs. Focuses on advanced principles of refrigeration, refrigerants, the refrigeration system, control devices and service tools. Develops skills in installation, start-up, preventative maintenance and the diagnosis of commercial refrigeration systems. Provides a practical problem-solving approach to everyday situations that confront the refrigeration technician. (Prerequisite: 601-129 Commercial Food Service Refrigeration)

601-134 Commercial Heating and Air Conditioning - 4 Crs. Develops advanced skills in the preventative maintenance and repair of commercial heating and air conditioning systems. Focuses on systems, start-up, preventative maintenance, service, troubleshooting and installation. Applications center on light commercial, packaged, split and central systems. (Prerequisite: Completion of or concurrent enrollment in 601-123 Residential Heating Systems)

602-103 Engine Repair 1 - 2 Crs. Focuses on developing the skills needed to diagnose, service and repair internal combustion engines. Emphasis is placed on in-vehicle repairs including engine cooling and lubrication systems. (Prerequisite: 602-107 Auto Service Fundamentals)

602-104 Brake Systems - 3 Crs. Focuses on developing the skills needed to diagnose, service and repair vehicle braking systems with an introduction to ABS. (ABS diagnosis, service and repair will be addressed in the Advanced Chassis course.) (Prerequisite: Completion of or concurrent enrollment in 602-107 Auto Service Fundamentals)

602-107 Auto Service Fundamentals - 2 Crs. Focuses on developing skills in professionalism, safety and the use of basic hand and power tools in accordance with industry standards. Students are introduced to the automotive service industry and learn to use both comprehensive and manufacturer's service information to perform basic under-hood and under-car services. (Prerequisites: Automotive Technology program students: Completion of or concurrent enrollment in 103-159 Computer Literacy - Microsoft Office; 804-107 College Mathematics;

890-101 College 101; 998-171 Auto New Student Orientation. Automotive Technician program students: Completion of or concurrent enrollment in 103-159 Computer Literacy - Microsoft Office; 804-360 Occupational Math 1 or 804-107 College Mathematics; 890-101 College 101; 998-171 Auto New Student Orientation)

602-109 Auto Transmission/Transaxle - 4 Crs. Focuses on developing the skills needed to diagnose, service and repair automatic transmission/transaxles including overhaul procedures. (Prerequisite: 602-127 Electrical and Electronic Systems 2)

602-123 Engine Repair 2 - 3 Crs. Focuses on developing the skills needed to diagnose, service and repair internal combustion engines. Emphasis is placed on out-of-vehicle engine repair including overhaul procedures. (Prerequisite: 602-103 Engine Repair 1)

602-124 Steering and Suspension Systems - 3 Crs. Focuses on developing the skills needed to diagnose, service and repair steering and suspension systems including wheel alignment procedures. (Prerequisite: Completion of or concurrent enrollment in 602-107 Auto Service Fundamentals)

602-125 Electrical and Electronic Systems 1 - 2 Crs. Focuses on developing the skills needed to diagnose, service and repair electrical and electronic systems. Students apply Ohm's Law to basic electrical circuit diagnosis. (Prerequisite: Completion of or concurrent enrollment in 602-107 Auto Service Fundamentals)

602-127 Electrical and Electronics Systems 2 - 3 Crs. Focuses on developing the skills needed to diagnose, service and repair electrical and electronic systems including batteries, starting, charging and lighting systems, and computer control systems. (Prerequisite: 602-125 Electrical and Electronic Systems 1)

602-128 Electrical and Electronic Systems 3 - 3 Crs. Focuses on developing the skills needed to diagnose, service and repair electrical and electronic systems including driver information, horn, wiper/washer, power accessories, cruise control, air bag, anti-theft and radio systems. (Prerequisite: Completion of or concurrent enrollment in 602-127 Electrical and Electronic Systems 2)

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602-132 Light-Duty Diesel Engine Operation - 2 Crs. Introduces design and operating characteristics of light-duty diesel fuel systems. Mechanical and electronic fuel systems of various makes are covered with the focus on electronic controlled fuel systems. Lab work includes identification of systems, testing and diagnosis of symptoms. (Prerequisite: 602-198 Engine Performance 2)

602-133 Shop Simulation/Internship 1 - 2 Crs. Focuses on Automotive Technician technical diploma students to further their ASE technical skills acquired from prerequisite courses. The ASE skills can be practiced in the lab on campus or at a work site. (Prerequisites: 602-104 Brake Systems; 602-124 Steering and Suspension Systems)

602-134 Shop Simulation/Internship 2 - 2 Crs. Focuses on Automotive Technician technical diploma students to further their ASE technical skills acquired from prerequisite courses. The ASE skills can be practiced in the lab on campus or at a work site. (Prerequisites: 602-128 Electrical and Electronic Systems 3; 602-197 Engine Performance 1)

602-135 Shop Simulation/Internship 3 - 2 Crs. Focuses on Automotive Technician technical diploma students to further their ASE technical skills acquired from prerequisite courses. The ASE skills can be practiced in the lab on campus or at a work site. (Prerequisites: 602-123 Engine Repair 2; 602-196 Climate Control Systems; 602-198 Engine Performance 2)

602-149 Manual Drive Train and Axles - 4 Crs. Focuses on developing the skills needed to diagnose, service and repair clutches, manual transmissions/transaxle, differentials, four-wheel drive/all-wheel drive, and drive axles. (Prerequisite: 602-127 Electrical and Electronic Systems 2)

602-195 Advanced Chassis Systems - 2 Crs. Focuses on developing the skills needed to diagnose, service and repair antilock brake, vehicle stability enhancement, and electronic steering and suspension systems. (Prerequisites: 602-104 Brake Systems; 602-124 Steering and Suspension Systems; 602-127 Electrical and Electronic Systems 2)

602-196 Climate Control Systems - 3 Crs.

Focuses on developing the skills needed to diagnose, service and repair climate control systems including heating, cooling and air distribution. Upon successful completion of the Mobile Refrigerant Handling unit (ATCP-136), a state certificate will be issued. (Prerequisite: 602-127 Electrical and Electronic Systems 2)

602-197 Engine Performance 1 - 3 Crs. Focuses on developing the skills needed to diagnose, service and repair powertrain control and ignition systems. Emphasizes diagnostic procedures and the problem-solving techniques associated with automotive engine performance and drivability. (Prerequisites: Completion of or concurrent enrollment in 602-103 Engine Repair 1; 602-127 Electrical and Electronic Systems 2)

602-198 Engine Performance 2 - 4 Crs. Focuses on developing the skills needed to diagnose, service and repair fuel and emission control systems. Emphasis is placed on diagnostic procedures and the problem-solving techniques associated with automotive engine performance and drivability. (Prerequisite: 602-197 Engine Performance 1)

606-107 Component Design - 4 Crs. Students apply and develop their knowledge and skills in creating engineering drawings and learn the skills to design mechanical products and parts utilized in various machines. Students use CAD software and work on individual projects to develop their understanding and skills in drawing preparation, decision making, information retrieval, organization and creativity. (Prerequisites: 606-132 Materials of Industry; 617-115 Jig and Fixture Design)

606-111 Integrated Manufacturing Production - Mechanical Design - 2 Crs. Students simulate a manufacturing environment by building a workcell, producing a product in production and performing quality assurance checks. Emphasizes implementation of a project plan, teamwork, problem solving and decision making. It is suggested that the student take this course in the semester after they take 606-112 Integrated Manufacturing Planning - Mechanical Design. (Prerequisite: 606-112 Integrated Manufacturing Planning - Mechanical Design)

606-112 Integrated Manufacturing Planning - Mechanical Design - 2 Crs. Students complete a project from concept to the point where a product is designed and its manufacturing process is planned. Emphasizes the project management process, teamwork, problem solving and decision making. It is suggested that the student take 606-111 Integrated Manufacturing Production - Mechanical Design in the semester after this course. (Prerequisite: Completion of or concurrent enrollment in 606-107 Component Design)

606-116 Machine Elements - 3 Crs. Presents a comprehensive study of the fundamental principles and analytical methods required for the correct design of the separate components that comprise a machine or product. Emphasizes understanding how the mechanical systems operate, construction details, practical design considerations and current design practices in the field of mechanical design. (Prerequisite: Completion or concurrent enrollment in 804-116 College Technical Mathematics 2)

606-125 Product Design - 4 Crs. Trains the student to use a systematic process along with technical procedures to plan, coordinate and implement the mechanical design of a machine or product. Students learn to apply fundamental design concepts and develop creativity in determining the functional features and engineering details of a product on a team-oriented project. (Prerequisites: 606-107 Component Design; 606-116 Machine Elements. Completion of or concurrent enrollment in 606-130 Strength of Materials)

606-128 Design Statics - 3 Crs. Presents an elementary, analytical and practical approach to the principles and physical concepts of the study of forces and their effects on machines. Emphasizes mastery of basic problem-solving methods used in force analysis for the purpose of machine design. (Prerequisite: Completion of or concurrent enrollment in 804-116 College Technical Mathematics 2)

606-130 Strength of Materials - 3 Crs. Develops the relationships between the external forces applied to a part and the internal stresses and strains generated by these forces. In application, it provides a first step in the design analysis to ensure that a component is safe with respect to strength, rigidity and stability. (Prerequisite: 606-128 Design Statics)

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606-132 Materials of Industry - 3 Crs.

Examines the varying usages of common and unique materials used in the design and engineering fields. Emphasis is placed upon the selection of appropriate materials for specific applications, both from a technical aspect and a cost perspective. Significant exposure is devoted to areas of nonmetallic materials and their increasing uses in product design. (Prerequisites: Completion of or concurrent enrollment in 103-159 Computer Literacy - Microsoft Office; 890-101 College 101)

606-170 CAD 3-D, NX (Unigraphics) - 3 Crs.

Introduces basic (Unigraphics Solutions) NX parametric-based solid modeling techniques. Exercises include creating and editing solid models using primitive features, form features and sketches. Introduces master modeling technique of drawing creation and editing; file management is also introduced. Recommended: Previous drafting experience or course; previous work on computers (Microsoft products such as Word, Excel, etc.).

606-171 Advanced CAD, NX (Unigraphics) - 3 Crs.

Explores areas of three-dimensional constructions and related features of the EDS Unigraphics II CAD system. Participants will construct 3-D models and perform model editing, use a 3-D coordinate system, create and apply surface techniques, and create 2-D drawings based on 3-D models. (Prerequisite: 606-170 CAD 3-D, NX (Unigraphics))

606-172 Unigraphics - 4 Crs.

Introduces basic (Unigraphics Solutions) NX parametric-based solid modeling techniques. Exercises include creating and editing solid models using primitive features, form features and sketches. Introduces master modeling technique of drawing creation and editing and file management. Students should have previous drafting experience or course and previous experience on computers (Microsoft products such as Word and Excel).

606-176 CAD 2-D, AutoCAD - 3 Crs.

Introduces computer-aided drafting (CAD) using the latest AutoCAD 2-D software. Students develop skills in drawing setup and organization, drawing and editing objects, creating complex shapes, dimensioning, using text, display and layer control, using symbols, drawing techniques, and plotting. Orthographic

projection techniques, section and auxiliary views will also be explored. No previous computer experience is required, but a background in fundamental blueprint reading and/or drafting skills is recommended.

607-110 Civil Drafting Fundamentals - 4 Crs.

Students develop computer-aided drafting techniques, technical knowledge and skills used in the production of drawings related to site improvements. Areas of study include map types, uses, and interpretation; plotting open and closed traverses; construction of contour lines from field data; plotting land profiles; determination of land areas and volumes; calculation of ground slopes; earth work cut and fill plotting; preparation of legal descriptions of land; developing drainage plans; and drawing construction plans for public utilities. (Prerequisites: Completion of or concurrent enrollment in 103-159 Computer Literacy - Microsoft Office; 607-176 AutoCAD I; 804-114 College Technical Math 1B; 890-101 College 101)

607-114 Structural Drafting - 4 Crs.

Provides the necessary knowledge and develops the basic structural drafting skills necessary for entry-level positions in the construction industry. Students analyze structural drawings from each of the principal structural trades: concrete, steel, masonry and wood. Students prepare plans for commercial and industrial buildings with CAD techniques. Drawing types addressed are framing plans, plan and section, fabrication drawings and bills of material. Students define terms and methods common to each of the major types of building methods. (Prerequisite: 607-116 Architectural Drafting for Civil Engineering)

607-116 Architectural Drafting for Civil Engineering - 4 Crs.

Introductory course in architectural drafting emphasizing print reading, manual and computer aided drafting in both 2D and 3D environments. Students develop an architectural design through sketching and manual drafting. The design is incorporated into a building information model (BIM) to create construction drawings. Drawings include floor plans, elevations, sections, details and schedules. Landscape architecture will be introduced to the students to create a site plan for the building. Students are introduced to industry requirements such as building codes and covenants. Introduction and adoption of cur-

rent industry trends are emphasized throughout the students work. Students prepare presentation drawings to showcase their building and site design. (Prerequisites: Completion of or concurrent enrollment in 103-159 Computer Literacy - Microsoft Office; 607-176 AutoCAD I; 890-101 College 101)

607-122 Mechanical Construction - 3 Crs.

Addresses the fundamental concepts of principal mechanical systems for buildings. Apply basic design principles of heating, air conditioning, ventilation, plumbing, electrical power distribution, and lighting design. Students learn to interpret codes, prints and specifications pertinent to mechanical systems. Introduces LEED (Leadership in Energy and Environmental Design) and Green Building Rating Systems. Information is presented on sustainable building practices which can be incorporated into project design, construction, operation and demolition. Applications of BIM and IPD are introduced and applied throughout the course. (Prerequisite: 804-114 College Technical Mathematics 1B)

607-123 Construction Estimating - 3 Crs.

Teaches students the basics of construction estimating with an emphasis on quantity takeoff procedures for both detailed and conceptual estimates. Additional topics include types of estimates, types of contracts and scheduling methods. Students use spreadsheets and industry standard estimating software to prepare detailed estimates from paper working drawings and electronic model files. Emphasis on industry trends are applied throughout the course including BIM and IPD. (Prerequisite: 607-114 Structural Drafting or dean consent)

607-131 Structural Analysis 1 - 3 Crs.

Provides an understanding of the relationship between the external forces applied to a structure and the resulting action on the components of the structure. Topics of study include vector analysis, resultant of forces, moments, force couples, truss analysis, and deflection in beams. (Prerequisite: 804-114 College Technical Mathematics 1B)

607-132 Structural Analysis 2 - 3 Crs.

Provides an understanding of the relationship between the external forces applied to a structure and the resulting action on the components of the structure. Topics of study include

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moment of inertia, stress in a structural member due to force or thermal changes, bending stress, and deflection in beams. (Prerequisites: 607-131 Structural Analysis 1; 804-116 College Technical Mathematics 2)

607-135 Construction Surveying - 3 Crs.

Students apply fundamental principles of surveying to the use of surveying instruments. Includes measurement, differential leveling, traversing, stadia, introduction to total stations, computations with computer software and introduction to GIS. To supplement classroom instruction, students solve field problems working as a surveying crew and using surveying equipment. (Prerequisite: Completion of or concurrent enrollment in 804-114 College Technical Mathematics 1B)

607-137 Site Development - 3 Crs. Students prepare a site plan for a typical residential and industrial lot including structure, location, paving, parking design, drainage considerations, and erosion control measures and landscaping. Includes the drafting of plans for a subdivision including survey maps, plot maps, drainage plans and presentation drawings. Students gather survey information and incorporate the data into a site design. (Prerequisite: 607-110 Civil Drafting Fundamentals)

607-140 Soils and Foundations - 3 Crs.

Explores the fundamental concepts of soil composition and structure, properties of fine-grained soil, compaction, soil classification, soil investigation, test and analysis, nuclear moisture-density relationship, bearing ratio, percolation, and seismograph exploration. Includes the testing of materials used in the various fields of construction. Introduces and observes the principal means of performing destructive and nondestructive tests through field trips to testing laboratories and classroom activities. (Prerequisite: 804-114 College Technical Mathematics 1B)

607-150 Technical Problems - 3 Crs. Students prepare a commercial design project under a prescribed set of criteria utilizing knowledge of previous courses in design with various construction materials and methods, including concrete, steel, wood, etc. Emphasizes practical projects and solutions. (Prerequisites: 607-110 Civil Drafting Fundamentals; 607-114 Structural Drafting; 607-122 Mechanical Construction;

607-131 Structural Analysis 1; 607-140 Soils and Foundations)

607-170 AutoCAD, Basic - 3 Crs. Introduces student to computer-aided drafting (CAD) using AutoCAD software. Explores basic constructions, dimensioning, editing and drawing manipulation functions. Additional topics, including zoom, array, inquiry, regen, etc., will allow students to complete drawings. No CAD experience is required, but a familiarity with drafting, blueprint, PC operation and windows would be helpful.

607-176 AutoCAD I - 3 Crs. Introduces computer-aided drafting (CAD) using AutoCAD software. Students develop skills in drawing setup and organization, drawing and editing objects, creating complex shapes, dimensioning, using text, display and layer control, using symbols, drawing techniques, and plotting. No previous computer experience is required, but a background in fundamental blueprint reading and/or drafting skills is recommended.

607-177 AutoCAD II - 3 Crs. Expands on the AutoCAD Architecture program and introduces 3-D modeling and visualization. Covers solid modeling concepts. Presentation drawings will be created to convey a look of the plans and perspective views. Explores customization of the AutoCAD interface by creating a custom profile. Exercises include creating a 3-D building with the features of AutoCAD Architecture (walls, doors, windows, structural members, roofs and styles). (Prerequisite: 607-176 AutoCAD I or 607-170 Basic AutoCAD)

607-178 Revit - 3 Crs. Introduces the student to the concepts and advantages of BIM modeling over CAD drafting. Exercises include designing a project using Mass Modeling, creating custom walls and objects, and creating a set of building construction documents for a 3 story office building. Other exercises include creating site plans with topography, working with phases, and generating sections and details. Deals with sharing files between multiple users and disciplines through a Central File and importing models into Navisworks. Knowledge of computer-aided drafting, construction methods and basic computer skills will be beneficial.

607-179 Revit II - 3 Crs. Introduces the MEP functionality of Revit. Students will explore the

Systems Interface and how to implement the Revit features of HVAC, electrical, and plumbing into working drawings. Students will also investigate concepts of drawing sharing, tagging and scheduling. (Prerequisite: 607-178 Revit or working knowledge of Revit software)

617-112 CAD 3-D, ProEngineer Creo - 3 Crs.

Introduces parametric-based solid modeling using ProEngineer Creo software. Emphasis is placed on solids modeling concepts, including development, modifying and editing models. Additional concepts include documenting of models using drawing mode and combining models into assemblies using assembly mode. Recommended: Previous drafting experience or course; previous work on computers (Microsoft products such as Word, Excel, etc.).

617-114 CAD 3-D, SolidWorks - 3 Crs.

Introduces SolidWorks parametric-based solid modeling techniques. Exercises will include creating and editing solid parts, assemblies and drawings. Top-down and bottom-up designing techniques will be applied to product design, sheet metal and mold tooling exercises. Exploded views, Bill of Materials, animations, finite element analysis and configurations will be created. File conversions will be explored to and from Creo/Pro-Engineer, Mastercam and AutoCAD software. Recommended: Previous drafting experience or course; previous work on computers (Microsoft products such as Word, Excel, etc.)

617-115 Jig and Fixture Design - 3 Crs.

Students continue to develop their CAD skills utilizing SolidWorks design software by creating solid models and producing detail and assembly drawings of jigs and fixtures suitable for manufacturing production of parts and assemblies. Students develop the skills necessary to process information and design the tools, methods and techniques in order to improve manufacturing efficiency and productivity. Emphasizes further development of dimensioning techniques and applying tolerances for functionality and manufacturability. (Prerequisite: 617-114 CAD 3-D, SolidWorks or dean approval)

617-123 Advanced SolidWorks Assembly Modeling - 3 Crs.

Applies previously developed SolidWorks skills to model assemblies and drawings using bottom-up, in context, and top-down modeling techniques. Configurations,

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custom properties, and design tables will be used to solve specific design scenarios. Surfacing, Weldments and Advanced Mold tools functionality will also be explored. (Prerequisite: 617-114 CAD 3-D, SolidWorks)

617-141 Computer-Aided Manufacturing - 2 Crs. Introduces students to two-dimensional (2-D) Computer-Aided Machining (CAM) utilizing Mastercam software. Students run CAM software on a computer to generate 2-D CNC programs. Students develop skills in the generation of 2-D geometry; generation of 2-D toolpaths; CNC machine code generation; post processing to machine language; tool selection; programming, editing and manipulation; speed and feed calculation; and optimization of programs for maximum efficiency. The course is delivered in a synchronous online delivery format where the student is at work, home or school observing live, instructor-led demonstrations. Students will complete exercises on their own and will either submit the completed exercise for evaluation or demonstrate live to the instructor through an Internet connection.

617-142 Computer-Aided Manufacturing - Part A - 1 Cr. Create two-dimensional and three-dimensional geometry using CAM software. Generate 2-D toolpaths for CNC milling machines and lathes, and 3-D tool paths for milling machines. (Corequisite: 617-143 Computer-Aided Manufacturing - Part B)

617-143 Computer-Aided Manufacturing - Part B - 1 Cr. Focuses on verification of part programs by linking computer-created 2-D and 3-D geometry and 2-D and 3-D toolpaths to machining practices on milling machines and lathes. (Corequisite: This course must be taken at the same time as 617-142 Computer-Aided Manufacturing - Part A)

617-145 Basic Machining Techniques - 3 Crs. Examines the basic machining practices used by tool and die makers in the production of molds and dies. Some advanced machining techniques are covered. Hands-on activities include working with hand tools, vertical milling machines, lathes, surface grinders, electrical discharge machines and computer numerical controlled (CNC) equipment.

617-147 Die Design 2 - 3 Crs. Students create strip layouts for both bent and formed sheet

metal parts using LogoPress design software. Students calculate the flat blank lengths of the part drawing to determine the unfolded part size. Students design complex progressive metal stamping dies for both bent and formed parts incorporating components necessary to satisfy part size dimensions. (Prerequisite: 617-149 Tool Design)

617-148 Die Design 3 - 3 Crs. Students create strip layouts for drawn sheet metal parts using LogoPress design software. Students calculate the flat blank size of the part drawing to determine the undrawn part size. Students design complex progressive metal stamping dies for drawn parts incorporating components necessary to satisfy part size dimensions. (Prerequisite: 617-147 Die Design 2)

617-149 Tool Design - 4 Crs. Fundamental stamping die and mold design principles are used to transform part drawings into completed metal stamping die and injection mold designs. Students calculate blanking and stripping forces to select appropriate sized punch press. Parting lines will be determined with core and cavities extracted for a variety of molded parts. (Prerequisites: 617-114 CAD 3-D, SolidWorks; 617-115 Jig and Fixture Design)

617-150 Material Selection - 2 Crs. Provides skills in determining the physical, mechanical and chemical properties of materials needed for specific applications in the tool and die industry. Explains the process for manufacturing of tool steels and their alloys. Covers the heat treatment processing of steel while examining the basic principles of metallurgy.

617-152 Mold Design 2 - 3 Crs. Students apply techniques from the prerequisite Tool Design course to determine more complex core and cavity extractions utilizing surfacing techniques. Virtual shots will be created to validate mold design. Complete two and three plate molds will be created for more complex part geometries. (Prerequisite: 617-149 Tool Design)

617-153 Mold Design 3 - 3 Crs. Applies side-pull actions to the manufacture of molded undercuts and hot-runner systems for runnerless high-volume molds. Students apply mold design skills mastered in the prerequisite Mold Design 2 course in combination with new techniques introduced in this course to

design molds to meet customer requirements. (Prerequisite: 617-152 Mold Design 2)

617-199 Engineering Technologies Internship - 3 Crs. Provides students in the Tool Design Engineering Technology, Mechanical Design, and Process Engineering Technology programs, who have completed at least three semesters of study, the opportunity to apply the concepts, principles and skills in an actual workplace. Emphasis is placed on applying design skills to real job tasks, adapting to company culture and modeling the core abilities. Students use on-site experiences to develop professional insight. (Prerequisite: 606-170 CAD 3-D, NX (Unigraphics) or 617-112 CAD 3-D, ProEngineer Creo or 617-114 CAD 3-D, SolidWorks)

620-101 DC Circuits - 3 Crs. Introduces the theory of basic DC electrical circuits. Emphasis is placed on testing of basic electrical circuits and verification of the theory involved in electronic technology. Troubleshooting practices are emphasized. Hands-on laboratory exercises and instrumentation reinforce theoretical concepts. This course supports the DC state standard for electronics. (Prerequisite: Completion of or concurrent enrollment in 804-113 College Technical Mathematics 1A)

620-102 AC Circuits - 3 Crs. Presents the scientific foundation used throughout electronics technology. This course supports the AC state standard for electronics. Troubleshooting practices are emphasized, and computer technologies are used to enhance perception of the abstract. Hands-on laboratory exercises and instrumentation will reinforce theoretical concepts. (Prerequisite: Completion of or concurrent enrollment in 620-101 DC Circuits)

620-103 Semiconductor Devices - 3 Crs. Focuses on the testing and application of semiconductors used in electronic circuits such as power supplies and motor drives. Analyzes various types of diodes, transistors and optoelectronic devices. Hands-on evaluation and testing of electronic circuits and use of laboratory test equipment, such as oscilloscopes and digital multimeters, is emphasized in the lab. (Prerequisites: 620-102 AC Circuits; Completion of or concurrent enrollment in 103-159 Computer Literacy - Microsoft Office; 890-101 College 101)

620-104 Digital Electronics - 3 Crs. Presents Boolean algebra, combinational logic circuit analysis and design, flip-flop arithmetic circuits, counters, digital IC logic families, data-handling logic circuits, I/O techniques, and memory devices. (Prerequisite: 620-102 AC Circuits)

620-105 Industrial Hydraulics and Pneumatics 1 - 2 Crs. Emphasizes forms of power transmission used in industry. Force and time capabilities for fluid power systems are determined. Develops skills needed to determine directional control valves to use with hydraulic pumps and to select directional control valve components for use in pneumatic systems. Students diagram and build air relay logic circuits.

620-110 Integrated Manufacturing, Planning - Mechatronics - 2 Crs. Students complete a project from concept to the point where a product is designed and its manufacturing process is planned. Emphasizes the project management process, teamwork, problem solving and decision making. It is suggested that the student take 620-111 Integrated Manufacturing, Production - Mechatronics, in the semester after this course. (Prerequisites: 620-103 Semiconductor Devices; 620-104 Digital Electronics)

620-111 Integrated Manufacturing, Production - Mechatronics - 2 Crs. Students will simulate a manufacturing environment by building a workcell, developing a product through manufacture, and performing quality assurance checks. Emphasizes implementation of a project plan, teamwork, problem solving and decision making. (Prerequisite: 620-110 Integrated Manufacturing, Planning - Mechatronics)

620-115 AC-DC Machinery and Motor Controls - 4 Crs. Tests the characteristics of AC and DC electric motors, generators, and alternators. Determines the effects of direction of rotation, field flux, speed, load characteristics, and voltage and polarity of AC and DC machines. Measures CEMF, torque, speed, field saturation and power factors loads. Analyzes the characteristics of different motor types. Applies conclusions to industry applications. (Prerequisite: 620-102 AC Circuits)

620-133 Data Acquisition Control with LabVIEW - 3 Crs. Explores and implements electrical machine controls. Evaluates electrical ladder diagrams and associated control systems. Conducts installation, testing and troubleshooting of machine control systems. Presents automation of processes using industrial hardware and software.

620-135 Allen-Bradley PLCs and Ladder Logic - 3 Crs. Learn to install programmable controllers, develop basic control programs and modify instructions to design programs. Troubleshoot machines controlled by programmable logic controllers. Wire input and output field devices. Document modifications to control panels. Monitor and troubleshoot machine processes. Develop HMI applications.

620-136 Advanced Allen-Bradley PLCs and PanelVIEW - 3 Crs. Learn to plan, program, identify and troubleshoot PLC motor control systems through a systematic approach. Discuss more advanced programming terminology, languages, and concepts. Identify communication techniques and protocols. (Prerequisite: 620-135 Allen-Bradley PLCs and Ladder Logic)

620-141 Mechanical Drives 1 - 3 Crs. Introduces the fundamentals of mechanical transmission systems used in industrial applications. Students will develop industry-relevant skills including how to operate, install, analyze, maintain, troubleshoot, and design basic mechanical transmission systems using chains, v-belts, spur gear, bearings, and couplings.

620-142 Mechanical Drives 2 - 3 Crs. Expands on Mechanical Drives 1 fundamentals. Students will examine bearings and right angle gears used in heavy duty mechanical transmission systems, along with industry laser shaft alignment. Students will set up, operate and apply laser shaft alignment to a variety of industrial applications. (Prerequisite: 620-141 Mechanical Drives 1)

620-146 Instrumentation and Process Control - 3 Crs. Introduces students to the application of useful control and work functions. Basic process control theory, control loop characteristics, and sensor feedback devices are explored. Actual industrial controls, instrumentation and transducers are used in lab applications. Students apply integration techniques

using digital, analog, electrical, mechanical, and hydraulic systems through laboratory experimentation. (Prerequisite: 620-133 Data Acquisition and Control with LabVIEW or 620-141 Mechanical Drives 1)

620-150 Data Communication and Protocols - 3 Crs. Focuses on industrial PC hardware and applications. Introduces PC bases I/O, communications and software. Explores supervisory control, data acquisition, networking, hardware installation and system troubleshooting. (Prerequisite: 620-104 Digital Electronics)

620-151 Fanuc Robotics and Vision Systems - 3 Crs. Provides technical skills for students to perform qualitative and quantitative analysis of Industrial Servo Systems. The control of velocity and position is explored utilizing various machines. Machine control is implemented using open-loop and closed-loop control techniques with industrial equipment. Provides a foundation for students to enhance their skills in working with electromechanical control systems.

620-193 NEC Codes (Lakeshore Technical College Course) - 1 Cr. Introduces the student to National Electric Codes NFPA 70. Prepares the learner to apply NFPA 70 to motor and control installations and repairs. (PREREQUISITE: 10620141 Industrial Controls and Motors)

620-195 Industrial Troubleshooting (Lakeshore Technical College Course) - 1 Cr. Prepares the learner to conduct effective machine control troubleshooting techniques with an understanding of preventive maintenance methods designed to minimize motor and controls issues between preventive maintenance measures. (PREREQUISITE: 10620141 Industrial Controls and Motors)

623-105 Metals for Technicians - 1 Cr. Introduces the student to the use of basic measuring tools, to threaded fasteners and their characteristics, and to mechanical properties of various metals. Students will calculate cutting speeds and perform drilling and threading operations.

623-106 Quality Tools - 3 Crs. Provides students with training in the effective use of over fifty quality improvement tools, many of them little known to even seasoned quality practitioners.

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Includes a thorough study of Production Part Approval Process (PPAP). All topics are presented with a hands-on, relative-to-industry approach.

623-110 Technical Print Reading - 2 Crs.

Develops the ability to read, visualize and interpret industrial blueprints. Discusses and applies fundamental and standard practices to the reading of numerous actual prints from manufacturing industries. (Prerequisites: Completion of or concurrent enrollment in 103-159 Computer Literacy - Microsoft Office; 804-113 College Technical Mathematics 1A or 804-360 Occupational Mathematics 1)

623-118 Gage Calibration, Repeatability and Reproducibility - 3 Crs.

Provides students with training to effectively set up and perform duties in a gage calibration program. In addition, this course provides students with training to effectively conduct repeatability, reproducibility bias, stability and linearity studies. All topics are presented with a hands-on, relative-to-industry approach. (Prerequisites: 623-190 Basic Metrology; 628-136 Statistical Process Control)

623-122 Print Reading Principles - 2 Crs.

Students develop the ability to read, visualize, interpret and create detailed engineering drawings. Includes the application of line types, dimensioning, tolerancing, fasteners, revisions, section views and auxiliary views to specific design situations. Students utilize CAD to reinforce and demonstrate mastery of orthographic projection techniques. (Prerequisite: 606-176 CAD 2-D, AutoCAD)

623-134 Basic CMM Programming and

Operation - 3 Crs. Provides hands-on training in Coordinate Measuring Machine (CMM) operation and programming for the purpose of verifying dimensional and geometric requirements in both manual and DCC modes. It is recommended that students have a background in print reading.

623-151 Lean Manufacturing - 3 Crs.

Incorporates the techniques utilized in a lean environment. Through projects, students learn the concepts of 5S, identifying waste, team building, problem-solving tools, setup reduction, cellular manufacturing, error proofing, kaizen, kanban, and value stream mapping.

Most projects and examples are manufacturing-related. (Prerequisite: 623-162 Manufacturing Processes or dean consent)

623-157 Applied Statistics/Six Sigma

Concepts - 3 Crs. Provides the student with an opportunity to learn and apply statistical tools to improve quality in manufacturing, service, education and health care organizations. Students are taught with actual examples of how statistical process control, ANOVA, t-tests, regression and statistical sampling can be used to improve quality. Course content will also help students prepare for ASQ Certified Six Sigma Green Belt exam if they choose to take it. Students should have a basic knowledge of Microsoft Excel. (Prerequisites: 628-136 Statistical Process Control; 804-114 College Technical Mathematics 1B)

623-162 Manufacturing Processes - 3 Crs.

Provides training to safely operate commonly used machine tools such as lathes, milling machines and surface grinders while making various hands-on projects. Students learn to use basic measuring equipment such as scales, micrometers, dial calipers and gage blocks. Students also learn basic machining procedures such as calculating speeds and feeds, determining tap drill sizes, and selecting tooling. Several nontraditional machining processes, sheet metal processes, joining processes and plastics processes are also explored.

623-167 ISO 9001 and Auditing - 3 Crs.

Focuses on the interpretation of ISO 9001 standards and develops the ability to audit these standards. Students utilize Quality Assurance manuals in a project-based approach.

623-170 Process Planning - 2 Crs.

Provides the technician with skills and knowledge in developing process planning procedures used in modern manufacturing. Discusses ECNs, SOPs and route sheets. Concepts of job costing and breakeven are introduced. Students produce a process plan while manufacturing a real part. (Prerequisite: 623-162 Manufacturing Processes)

623-175 Engineering Technologies

Internship - 3 Crs. Provides an opportunity to apply skills learned in prior Process Engineering Technology, Mechanical Design Technology, or Mechatronics coursework to an internship situ-

ation. Emphasis is on adapting to company culture, modeling the critical core manufacturing skills, applying skills to job tasks, and demonstrating teamwork abilities. Students must have an internship position secured one week before the class starts. (Prerequisite: 617-115 Jig and Fixture Design or 620-115 AC/DC Machinery)

623-190 Basic Metrology - 3 Crs. Introduces dimensional metrology with extensive hands-on exposure to various measurement techniques. Includes laboratory experiments with micrometers, vernier instruments, indicators, optical comparators, gage blocks, instruments for surface analysis and tool maker's microscope.

623-196 Geometric Dimensioning and Tolerancing - 3 Crs.

Provides design, manufacturing and quality assurance personnel with the fundamentals and concepts used on engineering drawings to describe form, location and orientation of features for precision parts. The ANSI/ASME Y14.5M-2009 national standard for Geometric Dimensioning and Tolerancing (GD&T) is an international language that consists of symbols, rules, definitions and conventions adopted by the American Society of Mechanical Engineers (ASME) for engineering drawings. A background in print reading is recommended. (Prerequisite: 804-113 College Technical Mathematics 1A)

628-110 Integrated Manufacturing Planning - Process Engineering Technology - 2 Crs.

Students complete a project from concept to the point where a product is designed and its manufacturing process is planned. Emphasizes the project management process, teamwork, problem solving and decision making. It is suggested that the student take 628-111 Integrated Manufacturing Production - Process Engineering Technology, in the semester after this course. (Prerequisite: 623-162 Manufacturing Processes)

628-111 Integrated Manufacturing

Production - Process Engineering Technology - 2 Crs. Students will simulate a manufacturing environment by building a workcell, producing a product in production and performing quality assurance checks. Emphasizes implementation of a project plan, teamwork, problem solving and decision making. (Prerequisite: 628-110 Integrated Manufacturing Planning - Process Engineering Technology)

628-122 Basic CNC Programming and Operation - 3 Crs. Applies skills in the programming, setup and operation of a machining center using G-code. Explores feeds and speeds, tool selection and workholding devices. Includes units on Rapid and Linear Interpolation, Circular Interpolation, Drilling, Bolt Circles, Absolute and Incremental Positioning, Subroutines and Subprograms, Cutter Compensation, and Pocket Milling. (Prerequisites: 103-159 Computer Literacy - Microsoft Office. Completion of or concurrent enrollment in 623-162 Manufacturing Processes or dean consent)

628-132 Advanced CNC Programming and Operation - 3 Crs. Applies skills in the programming, setup and operation of a turning center using G-code. Explores feeds and speeds, tool selection and workholding devices. Applies skills in programming and setup of a rotary indexer on a Vertical Machining Center, as well as the programming and setup of a Horizontal Machining Center. Introduces macro programming on a Haas Machining Center. It is recommended students have taken 628-122 Basic CNC Programming and Operation or have industry experience in programming and setup of CNC machines using G-code programming or dean consent.

628-133 Robotics and Automated Material Handling - 3 Crs. Emphasizes the application and management of industrial robots and automated material-handling systems. Applies the concepts of classification of robots, design of end-of-arm tooling, maintenance and safety. Computerized systems for materials inventory and retrieval are addressed through individual and group projects. Recommended completion of 628-122 Basic CNC Programming and Operation or background in working with automated equipment.

628-135 Principles of Machining - 2 Crs. Provides skills necessary for the student to perform basic operations on CNC lathes and milling machines with conversational controls. Students also learn to use and calibrate precision measuring equipment. (Prerequisite: 623-162 Manufacturing Processes)

628-136 Statistical Process Control - 3 Crs. Develops an understanding of the fundamentals of statistics and its application to statistical pro-

cess control (SPC). Develops data interpretation skill using statistical tools. Introduces plotting of control charts and its interpretation for variable and attribute type of data. Involves the student in process capability studies, quality management techniques and computer application in quality control. Recommended completion of 804-113 College Technical Mathematics 1A or proficiency in performing mathematical computations prior to taking this course. (Prerequisites: 103-159 Computer Literacy - Microsoft Office; 890-101 College 101)

628-142 Computer-Aided Manufacturing - 3 Crs. Emphasizes the use of MasterCam to create geometry, import 2D and 3D geometry, develop 2-1/2d cutter path and verify tool paths. Students post-process tool path to machine language and run programs on a CNC Machining Center. (Prerequisites: 628-122 Basic CNC Programming and Operation; 606-176 CAD 2-D, AutoCAD or dean consent)

801-136 English Composition 1 - 3 Crs. Designed for students to develop knowledge and skills in all aspects of the writing process. Planning, organizing, writing, editing and revising are applied through a variety of activities. Students will analyze audience and purpose, use elements of research, and format documents using standard guidelines. Individuals will develop critical reading skills through analysis of various written documents. (Prerequisite: Test score required to register)

801-141 Introduction to Mass Communications - 3 Crs. Explores communication in media and media literacy by providing insight into the important issues that confront students as consumers and purveyors of mass media within the workforce and in society. The mass media revolution, including media technologies, the evolution of media content and platforms, including new media, the impact of media communications on business and society as a whole, media bias, and media law and ethics form the basis of the course. (Prerequisite: 801-136 English Composition 1)

801-196 Oral and Interpersonal Communication - 3 Crs. Focuses upon developing speaking, verbal and nonverbal communication and listening skills through individual presentations, group activities and other projects. Course assignments will include presentations and various

individual and group projects as well as written work. (Prerequisite: Test score required to register)

801-197 Technical Reporting - 3 Crs. Provides students with the concepts, principles and skills for preparing and presenting oral and written technical reports. Types of reports may include lab and field reports, proposals, technical letters and memos, technical research reports and case studies. (Prerequisite: 801-136 English Composition 1)

801-198 Speech - 3 Crs. Explores the fundamentals of effective oral presentation to small and large groups. Topic selection, audience analysis, methods of organization, research, structuring evidence and support, delivery techniques and other essential elements of speaking successfully, including the listening process, form the basis of the course. (Prerequisite: Test score required to register)

801-310 Occupational Communication - 2 Crs. Focuses on writing, reading, listening and speaking skills through occupational applications. Students produce written documents, synthesize information, give and follow instructions and apply listening skills. Job-seeking skills are also addressed in this course.

801-322 Occupational Writing - 1 Cr. Builds confidence in writing ability; planning, organizing and preparing drafts; revising writing; and polishing final written products. Develops skill in using writers' resources, such as handbooks and style manuals, to write clearly, concisely and correctly.

802-101 German 1 - 2 Crs. Establishes a cultural and conversational foundation for professionals who work with German-speaking individuals. Focuses on vocabulary familiarization and building work recognition and usage, understanding German culture and social structure, and application of concepts in international business and educational environments.

802-102 German 2 - 2 Crs. Builds on the elements of communication (addressed in German 1), expanding grammar and providing the necessary vocabulary for meaningful situations in reading and conversational role-playing, using topics of general and current interest found in the German-speaking countries. (Prerequisite: 802-101 German 1)

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802-105 French 1 - 2 Crs. Focuses on basic grammar, word building, and communication at an elementary level as well as an understanding of French culture and traditions for professionals who relate to French-speaking people in an international business environment. Emphasizes application of language skills in the workplace.

802-106 French 2 - 2 Crs. Builds on the elements of communication (addressed in French 1), expanding grammar and providing the necessary vocabulary for meaningful situations in reading and conversational role-playing, using topics of general and current interest found in the Francophone world. (Prerequisite: Completion of or concurrent enrollment in 802-105 French 1)

802-109 Spanish 1 - 2 Crs. Explores basic Spanish communication skills through practice in listening, speaking, reading and writing. Students acquire vocabulary and grammar in order to develop the ability to speak, write, read and understand spoken Spanish. Emphasizes novice-level conversation, grammar usage, vocabulary development and acquisition of cultural information. Hands-on activities are presented in Spanish so that students become confident in their use of the Spanish language.

802-110 Spanish 2 - 2 Crs. Explores Spanish communication skills through practice in listening, speaking, reading and writing. Students acquire and build on previously learned Spanish vocabulary and grammar usage in order to further develop their knowledge of the Spanish language. Emphasizes novice to mid-novice level of conversation, listening exercises, grammar usage, vocabulary development, and reading for acquisition of cultural information. Hands-on activities are presented in Spanish so that students become confident in their use of Spanish. (Prerequisite: Completion of or concurrent enrollment in 802-109 Spanish 1)

802-111 Spanish 3 - 2 Crs. Develops further speaking, listening, writing, and reading skills in Spanish. Focuses on Hispanic culture at the highest beginning Spanish level. Expresses the past and compares the preterit and imperfect past tenses. Applies Spanish grammar rules to issue commands at the formal and informal levels. Explores the subjunctive mood. Develops listening and pronunciation skills using the

Internet. (Prerequisite: 802-110 Spanish 2 or dean consent)

804-107 College Mathematics - 3 Crs. Designed to review and develop fundamental concepts of mathematics pertinent to the areas of: (1) arithmetic and algebra, (2) geometry and trigonometry, and (3) probability and statistics. Special emphasis is placed on problem solving, critical thinking and logical reasoning, making connections and using calculators. Topics include performing arithmetic operations and simplifying algebraic expressions; solving linear equations and inequalities in one variable; solving proportions and incorporating percent applications; manipulating formulas; solving and graphing systems of linear equations and inequalities in two variables; finding areas and volumes of geometric figures; applying similar and congruent triangles; converting measurements within and between U.S. and metric systems; applying Pythagorean Theorem; solving right and oblique triangles; calculating probabilities; organizing data and interpreting charts; calculating central and spread measures; and summarizing and analyzing data. (Prerequisite: Test score required to register)

804-113 College Technical Mathematics 1A - 3 Crs. Examines linear, quadratic and rational equations; graphs functions; rearranges formulas; solves systems of equations; and solves percent and proportion problems. Applies skills and operations to technical problems. College Technical Mathematics 1A plus College Technical Mathematics 1B are equivalent to College Technical Mathematics 1. (Prerequisite: Test score required to register)

804-114 College Technical Mathematics 1B - 2 Crs. Continuation of College Technical Mathematics 1A. Includes measurement systems; computational geometry; right and oblique triangle trigonometry; and trigonometric functions on the unit circle. Emphasizes the application of skills to technical problems. Successful completion of College Technical Mathematics 1A and College Technical Mathematics 1B is equivalent to College Technical Mathematics 1. (Prerequisite: Completion of or concurrent enrollment in 804-113 College Technical Mathematics 1A)

804-116 College Technical Mathematics 2 - 4 Crs. Includes vectors; trigonometric func-

tions and their graphs; identities; exponential and logarithmic functions and equations; radical equations; equations with rational exponents; dimension of a circle; velocity; sine and cosine graphs; complex numbers in polar and rectangular form; trigonometric equations; conic sections; and analysis of statistical data. Emphasizes the application of skills to technical problems. (Prerequisite: 804-114 College Technical Mathematics 1B)

804-118 Intermediate Algebra With Applications - 4 Crs. Offers algebra content with applications. Topics include properties of real numbers, order of operations, algebraic solution for linear equations and inequalities, operations with polynomial and rational expressions, operations with rational exponents and radicals, algebra of inverse, logarithmic and exponential functions. An A or B in Algebra II or higher in high school within the past 5 years is strongly recommended.

804-123 Math With Business Applications (Lakeshore Technical College Course) - 3 Crs. Covers real numbers, basic operations, linear equations, proportions with one variable, percents, simple interest, compound interest, annuity, apply math concepts to the purchasing/buying process, apply math concepts to the selling process, and basic statistics with business/consumer applications. (Prerequisite: 10834109 Pre-Algebra or equivalent and Corequisite: 10838105 Introduction to Reading and Study Skills or equivalent)

804-189 Introductory Statistics - 3 Crs. Introduces techniques to display data with graphs, describe distributions with numbers, perform correlation and regression analyses, and design experiments. Uses probability and distributions to make predictions, estimate parameters, and test hypotheses. Draws inferences about relationships including ANOVA. An A or B in Algebra II or higher in high school within the past 5 years is strongly recommended.

804-195 College Algebra with Applications - 3 Crs. Covers those skills needed for success in Calculus and many application areas on a baccalaureate level. Topics include the real and complex number systems, polynomials, exponents, radicals, solving equations and inequalities (linear and nonlinear), relations and func-

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tions, systems of equations and inequalities (linear and nonlinear), matrices, graphing, conic sections, sequences and series, combinatorics, and the binomial theorem. An A or B in Algebra II or higher in high school within the past 5 years is strongly recommended.

804-360 Occupational Mathematics 1 - 2 Crs. Presents principles of arithmetic, calculator use, measuring systems, and introductory algebra and geometry with applications to various occupational areas. Applies general arithmetic and introductory algebra to order of operations, ratios and proportions, measurement in different measurement systems, and basic algebraic problems. (Prerequisite: Test score required to register)

804-361 Occupational Mathematics 2 - 2 Crs. Develops skills in algebra, geometry and trigonometry. Students will use trigonometry and the Pythagorean Theorem as well as circle and arc relationships to determine print dimensions. Students will calculate tolerances, interference, clearance and cutting speeds using appropriate formulas. (Prerequisite: 804-360 Occupational Mathematics 1)

804-362 Occupational Mathematics 3 - 2 Crs. Develops skills in calculating missing values for complex machining applications using trigonometry, the Law of Sines and the Law of Cosines. Students will calculate angles of rotation and tilt for three-dimensional situations. This course is for Tool and Die Making and CNC program students. (Prerequisite: 804-361 Occupational Mathematics 2)

804-363 Algebraic Applications for Electrical Trades - 2 Crs. Develops skills to apply scientific and engineering notations and inverse proportions to electrical formulas. Students will calculate dimensions using basic trigonometry and the Pythagorean Theorem. Students will analyze sine waves and apply the results to AC circuits as well as solve systems of equations. This course is for Electricity and Electrical Power Distribution program students. Recommend completion of 804-360 Occupational Mathematics 1 for students in the Electricity program before enrolling in this course.

804-582 Mathematics 1 - 1 Cr. Applies principles of arithmetic and algebra to metalworking and

drafting occupations. Must be a state-contracted apprentice to enroll in this course.

804-583 Mathematics 2 - 1 Cr. Applies algebraic terms, expressions, equations and formulas. Includes geometric principles, polygons and oblique triangles to solving problems related to metalworking and drafting trades. Must be a state-contracted apprentice to enroll in this course. (Prerequisite: 804-582 Mathematics 1)

804-584 Mathematics 3 - 1 Cr. Applies principles of algebra, geometry and trigonometry using right triangles and oblique triangles to solve shop-related drawings. Toolmakers, die makers and machine tool operators solve problems related to shop situations. Must be a state-contracted apprentice to enroll in this course. (Prerequisite: 804-583 Mathematics 2)

804-585 Mathematics 4 - 1 Cr. Applies trigonometric solutions to shop-related drawings and solutions of oblique triangles. Toolmakers, die makers and machine tool operators solve problems related to shop situations. Must be a state-contracted apprentice to enroll in this course. (Prerequisite: 804-584 Mathematics 3)

806-112 Principles of Sustainability (Lakeshore Technical College Course) - 3 Crs. Prepares students to develop sustainable literacy, analyze interconnections among physical and biological sciences and environmental systems, summarize effects of sustainability on health and well-being, analyze connections among social, economic, and environmental systems, employ energy conservation strategies to reduce use of fossil fuels, investigate alternative energy options, evaluate options to current waste disposal/recycling in the U.S., and analyze approaches used by your community. (Corequisite: 10838105 Introduction to Reading and Study Skills or equivalent)

806-114 General Biology - 4 Crs. Introduces general biological concepts and principles. Emphasis is on cell structure and function, genetics, evolution, and taxonomical relationships. Consideration is also given to diversity among the various kingdoms. (Prerequisite: Test score required to register)

806-122 Natural Sciences in Society - 3 Crs. Focuses on the history, philosophy, common

concepts and current issues of natural science that have impacted the United States and global society. Explores processes required to analyze natural science issues. Students correlate science issues to personal and professional experiences.

806-134 General Chemistry - 4 Crs. Covers the fundamentals of chemistry. Topics include the metric system, problem solving, periodic relationships, chemical reactions, chemical equilibrium, properties of water, acids, bases and salts, and gas laws. Students should complete math placement or Intermediate Algebra before taking this course. (Prerequisite: Test score eligibility for 804-107 College Math required to register)

806-137 Comprehensive Technical Physics - 4 Crs. Covers the areas of mechanics, heat, electricity, magnetism and optics through lecture, demonstration and laboratory work. Emphasizes empirical relationships, incorporating mathematical prerequisites. (Prerequisite: 804-114 College Technical Mathematics 1B)

806-177 General Anatomy and Physiology - 4 Crs. Examines basic concepts of human anatomy and physiology as they relate to health sciences. Using a body systems approach, the course emphasizes the interrelationships between structure and function at the gross and microscopic levels of organization of the entire human body. It is intended to prepare health care professionals who need to apply basic concepts of whole body anatomy and physiology to informed decision making and professional communication with colleagues and patients. Prep for Anatomy and Physiology (836-113) or high school biology with C or better STRONGLY RECOMMENDED. (Prerequisites: Two semesters high school or one semester college level Chemistry with a C or higher; Test score required to register)

806-179 Advanced Anatomy and Physiology - 4 Crs. Advanced Anatomy and Physiology is the second semester in a two-semester sequence in which normal human anatomy and physiology are studied using a body systems approach with emphasis on the interrelationships between form and function at the gross and microscopic levels of organization. Instructional delivery within a classroom and laboratory setting. Experimentation within a science lab will

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include analysis of cellular metabolism, the individual components of body systems such as the nervous, neuro-muscular, cardiovascular and urinary. Continued examination of homeostatic mechanisms and their relationship to fluid, electrolyte, acid-base balance and blood. Integration of genetics to human reproduction and development are also included in this course. (Prerequisite: 806-177 General Anatomy and Physiology)

806-186 Introduction to Biochemistry - 4 Crs.

Provides students with skills and knowledge of organic and biological chemistry necessary for application within Nursing and other Allied Health careers. Emphasis is placed on recognizing the structure, physical properties and chemical reactions of organic molecules, body fluids and acids. Additional emphasis is placed on biological functions and their relationships to enzymes, proteins, lipids, carbohydrates and DNA. (Prerequisite: 806-134 General Chemistry or high school or college chemistry with a C or better)

806-189 Basic Anatomy - 3 Crs. Examines concepts of anatomy and physiology as they relate to health careers. Students correlate anatomical and physiological terminology to all body systems. This course is intended for programs that involve indirect patient care, i.e., Health Information Technology, Clinical Coding, Medical Transcription, etc. This is not an acceptable course in health-related programs that involve direct patient care, i.e., Nursing, Radiologic Technology, Surgical Technology, etc. This course is not acceptable as a course substitution for 806-177 General Anatomy and Physiology. (Prerequisite: Test score required to register)

806-197 Microbiology - 4 Crs. Examines microbial structure, metabolism, genetics, growth and the relationship between humans and microorganisms. Addresses disease production, epidemiology, host defense mechanisms and the medical impact of microbes. Presents the role of microbes in the environment, industry and biotechnology. (Prerequisite: 806-177 General Anatomy and Physiology)

806-375 Applied Science - 2 Crs. Analyzes basic mechanical and electrical science concepts. Theoretical applications that relate

to occupational situations are developed. Mathematical calculations and conceptual models are used throughout the course. (Prerequisite: 804-363 Algebraic Applications for Electrical Trades)

806-376 Applied Physics - 2 Crs. Analyzes basic mechanical, fluid and electrical science concepts. Theoretical applications that relate to occupational situations are developed. Mathematical calculations and conceptual models are used throughout the course.

809-103 Thinking Critically and Creatively - 3 Crs. Provides instruction in the vital, realistic, and practical methods of thinking which are in high demand in all occupations of substance today. Decision making, problem solving, detailed analysis of ideas, troubleshooting, argumentation, persuasion, creativity, setting goals and objectives, and more are considered in depth as the student applies specific thinking strategies and tools to situations in a wide variety of workplace, personal, academic, and cultural situations. Classroom instruction is demonstration, discussion, project and team-work based. Assignments range from the short and simple to the detailed and complex. Reality and practicality are the focuses all through the course. (Prerequisite: Test score required to register)

809-122 Introduction to American Government - 3 Crs. Introduces American political processes and institutions. Focuses on rights and responsibilities of citizens and the process of participatory democracy. Students examine the complexity of the separation of powers and checks and balances. Explores the role of the media, interest groups, political parties and public opinion in the political process. Explores the role of state and national government in our federal system. (Prerequisite: Test score required to register)

809-128 Marriage and Family - 3 Crs. Introduces the sociological aspects of all intimate relationships including marriage and diverse family forms in contemporary United States. Examines love, courtship, mate selection, sexuality, single-hood, marital patterns and parenting practices. Explores the changes and challenges facing the family during its life cycle including relationship violence, alcohol and drug abuse, and divorce. Stresses cognitive,

emotional and behavioral factors contributing to marital satisfaction, resilience and success. (Prerequisite: Test score required to register)

809-159 Abnormal Psychology - 3 Crs.

Surveys the essential features, possible causes, assessment and treatment of the various types of abnormal behavior from the viewpoint of the major theoretical perspectives in the field of abnormal psychology. Students explore the diagnosis system of the DSM-5, trace the history of the psychology of abnormality, examine cultural and social differences as well as current perspectives and diagnosis criteria and treatments. (Prerequisite: 809-198 Introduction to Psychology or 809-199 Psychology of Human Relations)

809-166 Introduction to Ethics: Theory and Application - 3 Crs.

Provides a basic understanding of the theoretical foundations of ethical thought. Students analyze diverse ethical perspectives and compare relevant issues. Students critically evaluate individual, social and/or professional standards of behavior and apply a systematic decision-making process to ethical dilemmas. (Prerequisite: 801-136 English Composition 1)

809-172 Introduction to Diversity Studies - 3 Crs. Explores ethnic relations within global and comparative perspectives. Students analyze majority/minority relations, ageism, sexism, sexual orientation, the disabled, and the Americans With Disabilities Act (ADA) within a multicultural context. Students also explore the history of immigration and conquest, principles of transcultural communication, legal liability, and appreciation for diverse aesthetic values to increase respectful encounters among people. (Prerequisite: Test score required to register)

809-188 Developmental Psychology - 3 Crs. Explores human development throughout the lifespan including developmental theory and research with an emphasis on the interactive nature of the biological, cognitive and psychosocial changes that affect the individual from conception to death. Students engage in application and critical thinking activities to gain an increased knowledge and understanding of themselves and others. (Prerequisite: Test score required to register)

809-195 Economics - 3 Crs. Provides an overview of how a market-oriented economic system operates, and surveys factors that influence national economic policy. Students explore economic concepts illustrated through a variety of contemporary problems and public policy issues. Students also examine scarcity, resources, alternative economic systems, growth, supply and demand, monetary and fiscal policy, inflation, unemployment and global economic issues. (Prerequisite: 801-136 English Composition 1)

809-196 Introduction to Sociology - 3 Crs. Introduces students to the basic concepts of sociology: culture, socialization, social stratification, multiculturalism, and the five institutions including family, government, economics, religion and education. Students examine sociological topics including demography, deviance, technology, environment, social issues, social change, social organization and workplace issues. (Prerequisite: 801-136 English Composition 1)

809-197 Contemporary American Society - 3 Crs. Examines the network of interdependent social systems which affects students as employees, family members and citizens. In this interdisciplinary course, students study public policy issues which illustrate how our traditional institutions such as family, education, government, work and media 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 decisions, advocating positions, and participating in the democratic process. (Prerequisite: Test score required to register)

809-198 Introduction to Psychology - 3 Crs. Surveys the multiple aspects of human behavior. Students survey the theoretical foundations

of human functioning in such areas as learning, motivation, emotions, personality, deviance and pathology, physiological factors, and social influences. Students gain an insightful understanding of the complexities of human relationships in personal, social and vocational settings. (Prerequisite: Test score required to register)

809-199 Psychology of Human Relations - 3 Crs. Explores the relationship between the general principles of psychology and our everyday lives. Students are given the opportunity to achieve a deepened sense of awareness of themselves and others. This understanding enables students to improve their relationships with others at work, in the family and in society. (Prerequisite: Test score required to register)

809-300 Occupational Success Strategies - 2 Crs. Addresses employment skills that lead to productive working relationships. Emphasizes teamwork, customer service, interaction with diverse populations, problem solving, conflict resolution and handling feedback. Students practice stress management skills, strategies for maintaining mental and physical self-worth, and problem-solving approach to workplace transitions. (Prerequisite: Test score required to register)

831-103 Introduction to College Writing - 3 Crs. Introduces basic principles of composition, including organization, development, unity and coherence in paragraphs and multi-paragraph documents. (Prerequisite: Test score required to register)

834-109 Pre-Algebra - 3 Crs. Provides an introduction to algebra. Includes operations on real numbers, solving linear equations, percent and proportion, and an introduction to polynomials and statistics. Prepares students for elementary algebra and subsequent algebra-related courses. (Prerequisite: Test score required to register)

838-105 Introduction to College Reading and Study Skills - 3 Crs. Provides students with opportunities to develop study skills and expand reading skills including comprehension, fluency, and vocabulary skills. Students apply reading skills to academic tasks and read to acquire information from a variety of sources.

890-101 College 101 - 2 Crs. Develops tools and strategies that support success in college. Focuses on utilizing Moraine Park websites, online Course Management System and college resources. Student responsibility and expectations for success in college are explored. Emphasizes learning strategies, goals, lifestyle balance and skills for interdependence. Students will be required to complete during or prior to the first semester of their program. (College 101 may be waived if an official transcript indicating completion of a bachelor's or master's degree within five years is on file with the college.)

890-130 Career Development - 1 Cr. Provides opportunity for students to document career skills and attitudes and articulate career plans. Students analyze trends and opportunities in their targeted career, reflect on learning experiences, write a cover letter and résumé, and practice interviewing skills.

890-135 Student Leadership Development - 3 Crs. Provides an in-depth focus on self-motivation, time and financial management, study skills, learning styles, personal strengths and goal setting to support success in college. Enhances reading skills, writing skills and self-esteem. Explores Moraine Park's online learning management system (eCollege) and college services/resources. Exclusively for SSS students. Meets the college requirements for College 101.

Remedial and Developmental Courses

851-xxx Communications: Develops and applies skills in grammar, sentence mechanics and construction, capitalization, punctuation and spelling. Develops skills of the writing process for paragraphs and essays. Students enroll in the course that best serves their learning goal and current skill level based on assessment and instructor recommendation.

854-xxx Mathematics: Develops math skills with whole numbers, percents, fractions, decimals and basic geometric figures. Emphasizes number concepts, work problems, basic formulas, measurements and interpreting graphs, tables and charts. Introduces algebraic principles and basic geometric figures and formulas. Students enroll in the course that best serves their learning goal and current skill level based on assessment and instructor recommendation.

856-xxx Science: Examines broad concepts of science including unifying themes, scientific inquiry, problem solving, interaction of matter and energy, forces and characteristics and structure of living things. Unique courses present basic facts from disciplines of biology, general science and environmental science. Students enroll in the course that best serves their learning goal and current skill level based on assessment and instructor recommendation.

857-xxx Health: Explores general topics of environmental, mental and emotional health, including physical fitness, nutrition, contagious diseases, first aid and reproduction. Students enroll based on instructor recommendation.

858-xxx Reading: Develops and applies basic reading skills of vocabulary, identifying stated

and implied main ideas, comprehension, applying information from content, using critical reading skills and thinking strategies. Students enroll in the course that best serves their learning goal and current skill level based on assessment and instructor recommendation.

859-xxx Social Studies: Focuses on applying social studies information in the content areas of U.S. History, World History, Civics and Government, Economics, Environmental Science and Geography. Interprets cartoons, maps, charts and photographs. Examines almanacs, atlases and historical documents. Course numbers 859-712 and 859-766. Students enroll in the course that best serves their learning goal and current skill level based on assessment and instructor recommendation.

860-xxx Basic Computer Skills: Introduces students to the basic parts of a computer; Windows 7 Operating System; e-mail; keyboarding, including building typing speed and accuracy; using an online calculator; and use of basic computer applications including word processing, copy and paste, save and file, use of the Internet, and evaluating information found on the Internet. Students enroll in the course that best serves their learning goal and current skill level based on assessment and instructor recommendation.

861-xxx English Language Learning: Develops English language skills of listening, speaking, reading and writing for those whose native language is not English. Contexts of learning include social, occupational and educational settings. Instruction is offered in a

traditional format and in a blended/online format and includes the following levels: Beginning Literacy, Low Beginning, High Beginning, Intermediate, High Intermediate and Advanced. Students are assigned to the appropriate level based on assessment and instructor judgement.

861-xxx Community Connections: Introduces students whose native language is not English to local/state sites through field experiences, with pre- and post-classroom activities. Provides students with direct access to and practice with various agencies and services, such as health, banking, education, government and business and industry. Students enroll based on instructor recommendation.

861-xxx Preparation for Citizenship: Provides a comprehensive guide for individuals preparing to become naturalized U.S. citizens. Students practice listening, speaking, reading and writing skills necessary to pass the naturalization requirement tests. Students enroll based on instructor recommendation.

890-xxx Living Successfully Today: Focuses on successful financial living skills including analyzing personal spending habits, creating a budget, exploring banking services, and investigating credit risks. Students enroll based on instructor recommendation.

College Entrance Exam Preparation: Prepares students for exams such as the ACCUPLACER, ACT, SAT, COMPASS, etc. Readiness is assessed and instructors customize a plan, enrolling students in courses to review basic concepts in reading, grammar, arithmetic and algebra as needed.

Affirmative Action and Equal Opportunity

Policy Statement

Moraine Park Technical College is committed to compliance with the Civil Rights Act of 1991; the Americans with Disabilities Act of 1990, as amended; Titles VI and VII of the 1964 Civil Rights Act, as amended; the Age Discrimination Acts of 1967 and 1973; the Equal Pay Act of 1973, as amended; the Civil Rights Restoration Act of 1987; Title IX of the 1972 Education Amendments; Section 504 of the 1973 Rehabilitation Act; the Wisconsin Fair Employment Law; Federal and Wisconsin Executive Orders; Wisconsin Administrative Code; the Carl D. Perkins Vocational Education Act; and the Office for Civil Rights Guideline stating that no person shall be denied benefits, excluded from participation, or subjected to discrimination because of race, color, religion, national origin, ancestry, creed, sex, disability, arrest record, conviction record, age, veteran status, membership in National Guard, State Defense Force, or other reserve component of the military forces of Wisconsin or the United States, marital status, pregnancy, sexual orientation, political affiliation, parental status, genetic testing and the use or nonuse of lawful products off the employer's premises during nonworking hours.

It is the policy of Moraine Park Technical College to maintain an Affirmative Action and Equal Opportunity comprehensive plan. This program includes equal opportunity and nondiscrimination for all employees, students and non-employees.

Any person who believes that their affirmative action rights have been violated has the right to file a grievance. The grievance should be filed within 300 days. The Moraine Park Harassment and Discrimination Grievance Procedure should be followed. It can be accessed by clicking on "An Equal Opportunity College" at morainepark.edu or by contacting an Equal Opportunity Officer. This action does not preclude the grievant from seeking additional recourse through an appropriate outside agency.

Harassment Policy Statement

Moraine Park Technical College is committed to compliance with present law and guidelines prohibiting harassment in education and employment.

Harassment by employees, students, and non-employees, on the basis of race, color, sex, national origin, age, disability or other protected status is an illegal practice prohibited by Moraine Park Technical College.

Unwelcome sexual advances, requests for sexual favors, sexual violence and other verbal or physical conduct of a sexual nature constitutes sexual harassment when the following occurs:

1. Submission to such conduct is made either explicitly or implicitly, a term or condition of an individual's employment, or academic success;
2. Submission to or rejection of such conduct by an individual is used as the basis for employment decisions or academic standing affecting such individuals; or
3. Such conduct has the purpose or effect of unreasonably interfering with an individual's work performance or creating an intimidating, hostile or offensive work environment.

Harassment based upon race, color, sex, national origin, age or disability includes ethnic or racial slurs or other verbal and/or physical conduct relating to a person's race, color, sex, national origin, age or disabling condition which interferes with an individual's work performance or creates an intimidating, hostile or offensive environment. Moraine Park Technical College will not tolerate harassment by its employees, non-employees or students. Any person who engages in harassment will be subject to disciplinary action and/or termination.

Grievant: A Grievant can be:

1. An applicant for employment with MPTC.
2. An employee of MPTC.
3. An applicant for admission to any program or course at MPTC.

4. A student at MPTC.

Respondent: A Respondent can be a person and/or persons alleged to be responsible, or who may be responsible for the violation alleged in a grievance.

Equal Opportunity Officer: The employee designated by the MPTC District Board who has the responsibility of coordinating the grievance procedure. The District Board has appointed the Employment Manager as the Equal Opportunity Officer – Staff and the Diversity Relations Coordinator as the Equal Opportunity Officer – Students.

Alleged acts of discrimination that are in violation of the equal employment or education opportunity policies under which the Moraine Park Technical College District operates shall be filed directly with:

Equal Opportunity Officer - Student
920-924-6355
235 North National Avenue
PO Box 1940
Fond du Lac, WI 54936-1940

Equal Opportunity Officer - Staff
920-924-3495
235 North National Avenue
PO Box 1940
Fond du Lac, WI 54936-1940

Title IX Coordinator-Student
920-924-6459
235 North National Avenue PO Box 1940
Fond du Lac, WI 54936-1940

Title IX Coordinator-Staff
920-924-3232
235 North National Avenue PO Box 1940
Fond du Lac, WI 54936-1940

Information specific to campus security can be found in the annual campus security report available at morainepark.edu.

Campus and Community Information

Laura Schelter • Economic and Workforce Development Community Coordinator

Ripon High School • 850 Tiger Drive • Ripon, WI 54971-0313 (Room 720)
920-748-3290 or 920-924-3290 • Fax 920-748-3346
E-Mail lschelter@morainepark.edu or aferch@morainepark.edu

Laurie Barz • Economic and Workforce Development Community Coordinator

Jackson Regional Center • N173 W21150 Northwest Passage Way
Jackson, WI 53037-9387 • 262-335-5828 • Fax 262-673-2587
E-Mail lbarz@morainepark.edu or btenhaken@morainepark.edu

Campus Locations

Beaver Dam

700 Gould Street • Beaver Dam, WI 53916-1994
Student Services Call Center 920-924-3207.
To register, call 920-887-1101 or 1-800-472-4554.

Fond du Lac

235 North National Avenue • PO Box 1940
Fond du Lac, WI 54936-1940
For class information, call 920-924-3207.
Student Services Call Center 920-924-3207.
To register, call 920-922-8611 or 1-800-472-4554.

West Bend

2151 North Main Street • West Bend, WI
53090-1598
For class information, call 262-334-3413.
Student Services Call Center 920-924-3207.
To register, call 262-334-3413 or 1-800-472-4554.

Moraine Park also holds classes in
these various locations:

Calumet County

New Holstein

New Holstein classes are held at new Holstein
High School, 1715 Plymouth Street, New Holstein
WI.

Dodge County

Fox Lake • Horicon • Hustisford Juneau • Lomira • Mayville • Neosho

Horicon classes are held at Horicon High School,
841 Gray Street.

Hustisford classes are held at Hustisford High
School, 845 South Lake Street.

Juneau classes are held at Dodgeland High
School, 401 South Western.

Lomira classes are held at Lomira High School,
1030 Fourth Street.

Mayville classes are held at Mayville High School,
500 North Clark Street.

Neosho classes are held at Neosho School,
201 Center Street.

Fond du Lac County

Campbellsport • Ripon • Rosendale Waupun

Campbellsport classes are held at Campbellsport
High School, 114 West Sheboygan Street.

Ripon classes are held at Ripon High School,
850 Tiger Drive. Please refer to the Ripon High
School building map displayed on the wall of the
main entrance area on Dynamic Drive (the first
hallway to the right) for the room location.

Rosendale classes are held at Laconia High
School, 301 West Division Street.

Waupun classes are held at Waupun High School,
801 East Lincoln Street.

Green Lake County

Berlin • Green Lake • Markesan Princeton

Berlin classes are held at Berlin High School,
222 Memorial Drive.

Green Lake classes are held at Green Lake High
School, 612 Mill Street.

Markesan classes are held at Markesan High
School, 100 Vista Boulevard.

Princeton classes are held at Princeton Schools,
Hwy. 23/73.

Washington County

Hartford • Jackson • Kewaskum Slinger

Hartford classes are held at Hartford High School,
805 Cedar Street.

Jackson classes are held at the Jackson Regional
Center, N173 W21150 Northwest Passage Way.

Kewaskum classes are held at Kewaskum High
School, 1510 Bilgo Lane.

Slinger classes are held at Slinger High School,
209 Polk Street.

District Directory

**General Information 920-924-3207 or
800-472-4554**

- Admissions
- Academic Advising
- Financial Aid/Scholarships
- Registration
- Student Services Center
- Testing Services
- Tours and College Visits/Recruitment

Bookstore

- Beaver Dam 920-887-4407
- Fond du Lac 920-929-2105
- West Bend 262-335-5774

Career Planning

- Beaver Dam 920-887-4437
- Fond du Lac 920-924-3244
- West Bend 262-335-5773

Cosmetology Appointments . . . 920-929-2106

Counseling Services

- Beaver Dam 920-887-4441
- Fond du Lac . . . 920-924-3199 or 920-924-6535
- West Bend 262-335-5874

Disability Services

- Beaver Dam 920-887-4495

- Fond du Lac 920-924-3196
- West Bend 262-335-5741

District Equal Opportunity Officer

- Staff 920-924-3232
- Student 920-924-6459

Diversity Relations 920-924-6355

Economic and Workforce

- Development 920-924-3449

The EDGE - TRIO SSS 920-924-3165

Hearing Impaired TTY/VP: Use RELAY/VRS

Help Desk

- Technology Helpline 920-924-3481
- Online (Canvas) Help Desk 855-790-8839

Instructional Offices

- Basic Education 920-924-6393
- Business and IT 920-929-2115
- Child Care and Health Sciences . . 262-306-5314
- General Education 920-929-2113
- Human Services 920-924-3270
- Manufacturing 262-306-5321
- Cosmetology
- Nursing 262-335-5710
- Trades 920-924-6436

- Apprenticeship
- Culinary Arts

Library

- Beaver Dam 920-887-4406
- Fond du Lac 920-929-2470
- West Bend 262-335-5760

Nontraditional Occupations . . . 920-929-2477

Parts Store 920-929-2118

President's Office 920-929-2127

Student Employment Services . . 920-924-3205

Student Life

- Beaver Dam 920-887-4462
- Fond du Lac 920-924-3101
- West Bend 262-335-5743

Student Success Center

- Beaver Dam 920-887-4402
- Fond du Lac 920-924-6383
- West Bend 262-335-5783

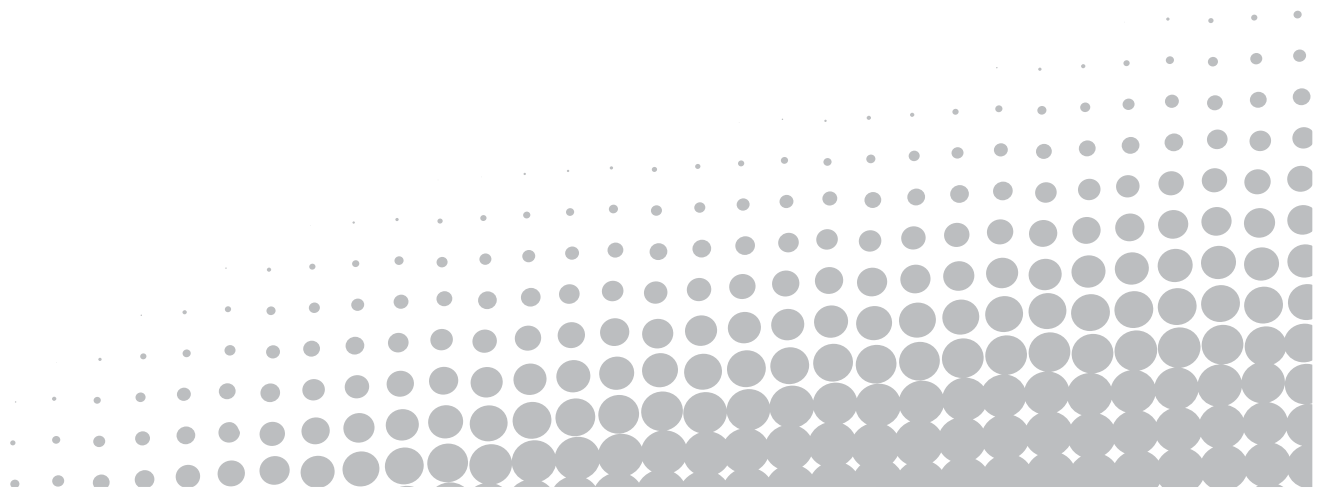
Transcripts and Records 920-922-8611

Tutoring 920-924-6488

Veterans 920-924-3209

Youth Options/Course Options/

Career Prep 920-924-3428



Administration and Faculty

Administration and Faculty:

Adams, Michele

Safety Manager
AAS, State University of New York
BS, Ohio University
MS, Silver Lake College

Andersen, Amy

Counselor
BS, MSED, University of Wisconsin-Oshkosh

Arndt, Marcia

Associate Dean of Manufacturing
BS, University of Wisconsin-Stout
MS, University of Wisconsin-Madison

Atkinson, Ross

Web Developer
BS, University of Wisconsin-Stevens Point

Baerwald, Bonnie

President
AAS, Wisconsin Lutheran College
BBA, University of Wisconsin-Whitewater
MPA, University of Wisconsin-Oshkosh

Baierl, Hans

Library Services Coordinator
MLS, University of Wisconsin-Milwaukee

Bandler, Mary

Respiratory Care Practitioner Instructor
AD, Milwaukee Area Technical College
BA, Concordia University
MS, Marian University

Barfield, Joan

Corrections Science Instructor
BSE, Marian University
MS, University of Wisconsin-Platteville

Bartelt, Todd

Radiography Instructor
AD, Lakeshore Technical College
BS, Marian University

Barz, Laurie

Economic and Workforce Development
Community Coordinator
AD, Moraine Park Technical College
BA, MBA, Concordia University

Bau, Linda

Clinical Lab Instructor
BS, Marian University
MPA, University of Wisconsin-Oshkosh

Bauer, Bonita

Director of Admissions
BSED, MSED, University of Wisconsin-Whitewater

Bauer, Janet

Medical Assistant Instructor
ADN, Moraine Park Technical College

Beach, Jeffrey

Welding Instructor
AAS, Milwaukee Area Technical College

Berg, Melissa

Communications Instructor
BA, MS, University of Wisconsin-Whitewater

Bernhard, Cynthia

Business Technology and Computer
Applications Instructor
BS, University of Wisconsin-Stout
MA, Marian University

Bird-Roehrig, Rhonda

Careers Instructor
BA, MS, University of Wisconsin-Whitewater

Bjork, Anders

Web Services Manager

Blankenheim, Brian

Marine Power Equipment Instructor

Blessing, Christy

Employment Manager
BS, University of Wisconsin-Stevens Point

Block, David

Basic Education/English Language Learning
Instructor
BBA, Saint Norbert College
MA, Wheaton College

Bosch, Cathryn

Nursing Instructor
DIPL (2), Moraine Park Technical College
ADN, Moraine Park Technical College
BS, Deaconess College of Nursing
MS, Chamberlain College of Nursing

Bouchard, Eileen

Barber/Cosmetology Instructor
DIPL, University of Academy Hair Design

Boudreau, Richard

Director of Facilities
BS, University of Wisconsin-Milwaukee

Boyle-Gustavus, Jeanette

Electricity Instructor
APPR, Moraine Park Technical College

Braatz, Kimberly

Careers Instructor
BBA, Saint Norbert College
MAEd, Marian University

Brace, James

Associate Dean of Human Services
AD, Moraine Park Technical College
BA, Marian University
MS, University of Wisconsin-Platteville

Brath, Rebecca

Economic and Workforce Development
Instructor
BA, MBA, Concordia University

Brendel, Charles

Associate Dean of Economic and Workforce
Development
DIPL, Lakeshore Technical College

Broske, Kathleen

Vice President - Human Resources
BS, University of Illinois at Urbana
MBA, University of Wisconsin-Oshkosh

Brown, Barbara

Nursing Instructor
ADN, Moraine Park Technical College
BSN, Graceland University
MSN, Marian University

Bruegman-May, Karrie

Nursing Assistant Instructor
ADN, Blackhawk Technical College
BN, MSN, Marian University

Budde, Julie

Economic and Workforce Development Project
Manager
AD, Moraine Park Technical College
BS, MS, Silver Lake College

Buytendorp, Lila

Director of User Services
BBA, University of Wisconsin-Oshkosh
MS, Silver Lake College

Campopiano, Ronald

Social Science Instructor
BA, MS, PhD, University of Wisconsin-Milwaukee

Carnahan, Kenneth

Anatomy and Physiology Instructor
BA, Hanover College
MS, Indiana University
PhP, Ohio College of Podiatric Medicine

Christianson, Wendy

Accommodation Specialist
BA, University of Wisconsin-Stevens Point
MA, Fielding Institute

Clark, Amy

Admissions and Advising Manager
BFA, University of Wisconsin-Stevens Point
MFA, Jones International University

Clark, Larry

Welding Instructor
CERT, Wisconsin Indianhead Technical College
BS, University of Wisconsin-Stout

Coley, Karen

Adult Career Pathways Manager
BBA, University of Wisconsin-Madison

Cook, Danielle

Surgical Technologist Instructor
AAS, Milwaukee Area Technical College
BS, University of Wisconsin-La Crosse
MS, University of Wisconsin-Oshkosh

Cordell, Tina

Nursing Assistant Instructor
BSN, MSN, Alverno College

Corrente, Francesco

Automotive Technician Instructor

Cram, Stanley

Vice President - Student Affairs
BA, Vennard College
MA, EdS, PhD, University of Iowa

Daniels, James

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Davies, Mary

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BN, MSN, Bellin College of Nursing

Desiderio, Joseph

Information Technology - Technical Support
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Dilling, Julie

Accounting Instructor
BBA, University of Wisconsin-Whitewater
MBA, University of Wisconsin-Oshkosh

Dobogai, Andrea

Nursing Instructor
BSN, MSN, Marian University

Dolinar, Jodie

Nursing Assistant Instructor
AS, BS, Cardinal Stritch University

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Eden, James

Vice President - Academic Affairs
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MBA, PhD, Cardinal Stritch University

Endejan, Thomas

Culinary Arts Instructor
BS, University of Wisconsin-Stout

Esposito, Nancy

Basic Education Instructor
BA, Southern Illinois University

Evenson, Heather

Nursing Instructor
ADN, Community College of Rhode Island
BS, MSN, University of Wisconsin-Oshkosh

Faeh, John

Security Manager

Falter, Joan

Accounting Instructor
BBA, University of Wisconsin-Milwaukee
MBA, Concordia University Wisconsin

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BA, University of Wisconsin-Green Bay
BS, University of Wisconsin-Oshkosh

Ferguson, Lisa

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BBA, University of Wisconsin-Oshkosh
MS, Silver Lake College

Fields, Bobbi

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AD, Moraine Park Technical College
BS, University of Phoenix

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Dean of Health and Human Services
AD, Tidewater Community College
BS, Norfolk State University
MS, Concordia University

Fitzgerald, Vicky

Director of Finance
BBA, University of Wisconsin-Oshkosh

Flaherty, Timothy

Traffic Safety Instructor
AD, Fox Valley Technical College

Forcica, Bruce

Anatomy and Physiology Instructor
BA, Eckerd College
DC, Parker College of Chiropractic

Freund, Donna

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MS, Marian University

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AA, University of Wisconsin Center -
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BS, University of Wisconsin-Oshkosh

Garofalo, Dominic

Web Developer Instructor
AA, University of Wisconsin Center-Sheboygan
BS, MS, Silver Lake College

Gauerke, Mallory

Training Coordinator

Gellings, Beau

Economic and Workforce Development
Business Representative
BBA, University of Wisconsin-Oshkosh

Geschke, Joshua

Economic and Workforce Development
Computer Numerical Control Instructor
DIPL, Madison Area Technical College
BS, University of Wisconsin-Stout

Gloede, John

EMS/Paramedic Instructor

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Diversity Relations Coordinator
BS, University of Wisconsin-Stevens Point

Griffin, Daniel

CNC/Tool and Die Technologies Instructor
APPR, Milwaukee Area Technical College

Gruss, Jeffery

Corrections Science Instructor
BS, University of Wisconsin-Platteville

Gyorfy, James

Economic and Workforce Development CNC
Instructor
APPR, Waukesha County Technical College

Habeck, Craig

Mechatronics Instructor
BS, University of Wisconsin-Madison
MS, University of Wisconsin-Platteville

Hager, Lisa

Early Childhood Education Instructor
BA, Lakeland College

Hall, JoAnn

Dean of Economic and Workforce Development
BBA, University of Wisconsin-Whitewater
MBA, University of Phoenix

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Social Science Instructor
AD, Moraine Park Technical College
BS, University of Wisconsin-Stout
MA, University of Wisconsin-Oshkosh

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Math Instructor
BS, MS, University of Wisconsin-Milwaukee

Harmsen, Amy

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Instructor
AD, Moraine Park Technical College
BS, Silver Lake College
MA, Marian University

Harn, Teresa

Counselor
MA, Lakeland College

Hayes, Emily

Reading/Writing Instructor
BS, University of Wisconsin-Whitewater
MA, University of Wisconsin-Oshkosh

Henderleiter, Steve

Welding Instructor
AAS, Milwaukee Area Technical College

Henken, JoAnne

Director of Organizational Development
BS, University of Wisconsin-Oshkosh
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College Acronyms and Common Terms

College Acronyms

A - Apprenticeship
AAS - Associate of Applied Science
ABC - Associated Builders & Contractors
ABE - Adult Basic Education
ACCL - Accelerated
ADN - Associate Degree Nursing
AMTC - Applied Manufacturing and Technology Center (at the West Bend Campus)
AODA - Alcohol and Other Drug Abuse
AP - Advanced Placement
ATC - Advanced Technical Certificate
BD - Beaver Dam Campus
BE - Basic Education
BIA - Bureau of Indian Affairs
BID - Background Information Disclosure
BLD - Blended
C - Certificate
CE - Continuing Education
CEU - Continuing Education Units
CFR - Code of Federal Regulations
CLEP - College Level Examination Program
CNC - Computer Numerical Control
COA - Cost of Attendance
CPL - Credit for Prior Learning
CTSO - Career and Technical Student Organizations
DO - District Office (in Fond du Lac)
DSG - District Student Government
DVR - Division of Vocational Rehabilitation
ECE - Early Childhood Education
EEOC - Equal Employment Opportunity Commission
EFC - Expected Family Contribution
ELL - English Learners Language
ELL (mod.) - English Language Learning
ELPA - English Language Proficiency Assessment
EMT - Emergency Medical Technician

EPD - Electrical Power Distribution
ESL - English as a Second Language
FAFSA - Free Application for Federal Student Aid
FDL - Fond du Lac Campus
FERPA - Family Educational Rights and Privacy Act
FT - Full time
FTE - Full-time Equivalent
FWS - Federal Work Study
GED - General Education Diploma
GED (mod) - Certificate of General Educational Development
GPA - Grade Point Average
HEAB - Wisconsin Higher Education Aids Board
HIPAA - Health Insurance Portability and Accountability Act
HIT - Health Information Technology
HR - Human Resources
HSAP - High School Alternative Program
HSED - High School Equivalency Diploma
HVAC - Heating, Ventilating and Air Conditioning
IA - Instructional Assistant
IMC - Integrated Manufacturing Center (at the Fond du Lac Campus)
IMD - Interactive Media Design
IPEDS - Integrated Postsecondary Education Data System
IS - Independent Study
IT - Information Technology
ITS - Individualized Technical Studies
IVC - Interactive Video Conference
LPN - Licensed Practical Nursing
MA - Medical Assistant
MGIB - Montgomery GI Bill
MGIB-SR - Montgomery GI Bill-Selected Reserves

MLT - Medical Laboratory Technician
MPTC - Moraine Park Technical College
NA - Nursing Assistant
NLN - National League of Nursing
NSO - New Student Orientation
NTO - Nontraditional Occupation
ONL - Online
OTC - Office Technology Center
PACE - Parent and Child Education
PII - Personally Identifiable Information
PLUS - Parent Loan for Undergraduate Student
PT - Part time
PTK - Phi Theta Kappa
REAP - Reserve Educational Assistance Program
SAIF - Student Accident Insurance Fee
SAP - Satisfactory Academic Progress
SAR - Student Aid Report
SEOG - Supplemental Educational Opportunity Grant
SPCS - Self-Paced Computer Software
SPOL - Self-Paced Open Labs
SSC - Student Success Center
STEM - Science, Technology, Engineering, and Math
TABE - Tests of Adult Basic Education
TD - Technical Diploma
TIP - Talent Incentive Program grant
TIS - Transfer Information System
UG - Undergraduate
VA - Veterans Affairs
VEAP - Veterans Educational Assistance Program
VRAP - Veterans Retraining Assistance Program
WB - West Bend Campus
WHEG - Wisconsin Higher Education Grant
WSG - Wisconsin Student Government
WTCS - Wisconsin Technical College System

Common Terms

Advisor - Academic Advisors are your primary resource regarding academic planning and related issues, program specific requirements, and goal setting. Advisors can answer your questions, and assist you with planning and problem-solving to help you get the most from your education.

Accepted - Students that have completed all the required admissions steps for a specific program.

Admitted - Used interchangeably with Accepted.

Core Abilities - Transferable skills, knowledge and/or attitudes essential to an individual's success regardless of occupation or community setting.

Core Courses - Courses that cover program-specific technical skills and knowledge.

Corequisite - Requires that a course be taken at the same time as another course. You may not drop or withdraw from one course without dropping or withdrawing from the other.

Counselor - Counselors are here to support and provide short-term counseling services for any

issues that may become barriers to student success at the College.

Course Options: A state-approved program that allows students enrolled in Wisconsin public school districts to attend up to two courses at a time in a variety of educational institutions, including Wisconsin Technical Colleges. Courses must be pre-approved by the college and school district. The school district pays for the courses. Successfully completed courses apply to high school graduation and as college credit.

College Acronyms and Common Terms (cont.)

Educational Records - Any record (in handwriting, print, tapes, film, computer or other medium) maintained by Moraine Park Technical College directly relating to a student or students.

Enrollment Status - An indication of whether a student is attending school full time (12 or more credits), three quarter time (9-11 credits), half time (6-8 credits) or less than half time (1-5 credits).

Family Educational Rights and Privacy Act (FERPA) - Federal legislation enacted to protect the privacy of students' educational records.

Federal Work Study - Provides jobs for eligible students who need financial assistance to attend college. Money is earned as the student works.

Financial Aid* - Assistance to help a student of any age meet their educational costs. Financial aid may be in the form of a federal or state grant, federal work-study or federal student loans. A student applies for financial aid by completing the Free Application for Federal Student Aid (FAFSA).

Free Application for Federal Student Aid (FAFSA) - The application used to apply for Federal Student Aid Programs including grants and loans. The student's eligibility to qualify for Federal and State Student Aid programs is based on the expected family contribution (EFC) determined from the information reported on the FAFSA, and on a number of other factors. Completion of the FAFSA is required each academic year that the student requests Federal and State Student Aid.

Full-Time Student - An individual enrolled in and attempting 12 or more credits in an academic term.

Grade Point Average (GPA) - Individuals are awarded a grade point for each course completed. The grade point average is determined by taking the number of grade points earned and dividing it by the number of credits attempted. The grade point average is determined at the end of each semester and is awarded based on the completion of the academic term and cumulatively determined for all courses attempted at the institution.

Grant - A type of financial aid based on financial need.

Loan - A type of financial aid which must be repaid with interest.

Matriculation - Used interchangeably with Accepted.

New Student - Student who has been accepted in a program for the upcoming semester

Nontraditional Occupations - Careers that currently employ 25 percent or less of one gender.

Part-Time Student - An individual attempting 11 or fewer credits in the academic term.

Pre-Core Student - A student who is on a waiting list for a program and has been accepted to take General Education courses.

Prerequisite - Requires that a student must pass a course or test before enrolling in a more advanced course. Equivalent skills or prior

experience may also be accepted as a prerequisite for a course with prior approval.

Program of Study - The academic area in which the student has been accepted.

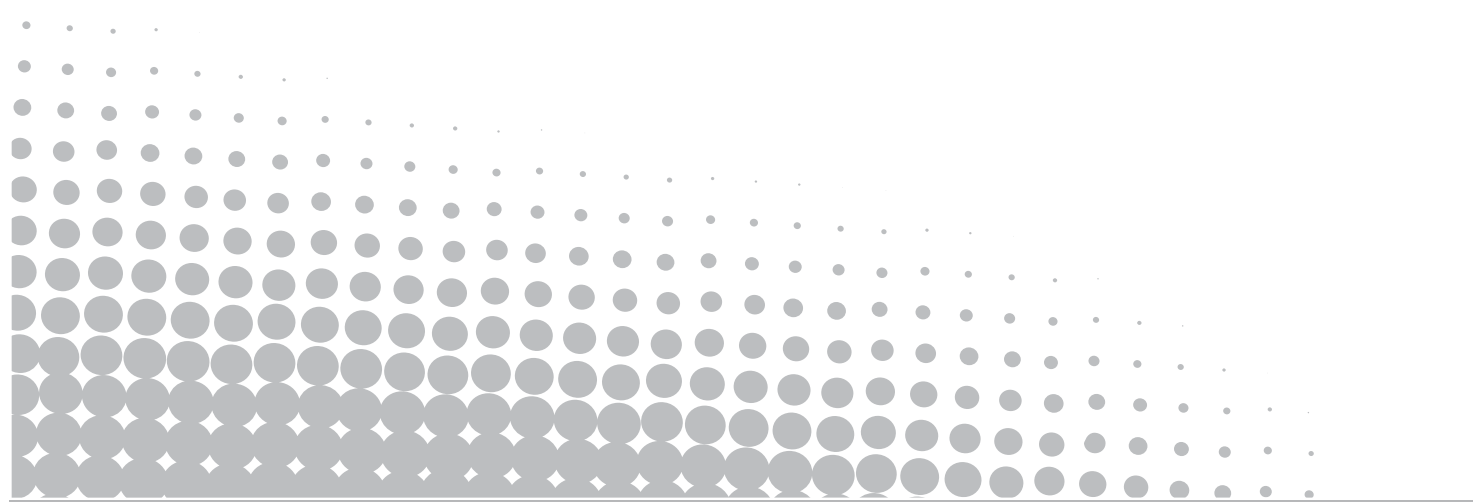
Registered - The act of choosing courses and signing up to take the course. Students do not register for a program, they must go through the application process to be admitted into a program. When registering for a class, they are reserving their spot in a course and agreeing to pay all of the course fees.

Returning Student - A student who has been accepted into a program, is currently attending, and has taken at least one semester of core courses.

Scholarship - A type of funding that does not have to be repaid by the recipient. Scholarships are most often awarded through an application process for one of two reasons: achievement in academics or other areas of financial need.

Youth Option - A state approved program for public high school 11th and 12th grade students who meet specific criteria to take post-secondary courses. Courses must be pre-approved by the high school and are paid by the high school. Successfully completed courses apply to high school graduation and as college credit.

*A complete list of financial aid terms can be found in the Financial Aid Award Guide at morainepark.edu/awardguide.



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