

Southwest Wisconsin
TECHNICAL COLLEGE

Catalog

2026—2027





If you need an accommodation to attend, call 608.822.2632 (tdd: 608.822.2072) or email disabilityservices@swtc.edu

Southwest Tech does not discriminate on the basis of race, color, national origin, sex, disability, or age in its programs and activities. The Equal Opportunity/Affirmative Action Officer has been designated to handle inquiries regarding non-discrimination policies. Call 800-362-3322, Ext. 2315 (TDD: 608-822-2072) or write Southwest Tech, 1800 Bronson Blvd., Fennimore, WI 53809.

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Welcome. We're Glad You Are Here!



Southwest Tech Wins Aspen Prize for Community College Excellence!

Our commitment to student success has earned national recognition—giving you confidence in choosing SWTC for your educational journey.

Welcome to Southwest Tech! We are grateful you are a student at our college. You will notice that we are a friendly college and we strive to help every single student. As we get to know you, please ask us about our programs, services, and opportunities for students. You may also find answers to your questions at our web site, www.swtc.edu.

We have found that students who attend and in class are most likely to be successful. The faculty strive to make the learning environment very similar to what you will find in the real world. In our classes, you will get individual attention and hands-on experience. The more you participate in class, the more you will enjoy learning as you prepare for a career. We also strive to help you learn and develop outside of the classroom.

In the Knox Learning Center you will find tutors, library services, computers, and more that will help you be successful. If you would like to meet other students, you may want to join a club or participate in an activity. Many students enjoy Charley's, which has all sorts of activities and games for students to relax and enjoy time together. You can also get assistance from Academic Success Coaches who are dedicated to helping students achieve their goals. Thank you for choosing Southwest Tech. We look forward to your success!

Mission Statement

Southwest Wisconsin Technical College provides education and training opportunities responsive to students, employers, and communities.

Vision Statement

Southwest Wisconsin Technical College will be a preferred provider of education, source of talent, and place of employment in the region. We at the College change lives by providing opportunities for success.

Please reference the [Student Handbook](#) for policies regarding financial aid, grading, and conduct. Southwest Tech reserves the right to modify Student Policies and Procedures and Employees' and Students' Right to Know at any time to reflect changes in district policy and/or applicable law.

Accreditation

Southwest Wisconsin Technical College is accredited by the Higher Learning Commission (hlcommission.org), a institutional accreditation agency recognized by the U.S. Department of Education. Southwest Tech has been accredited since 1976. In 2002, Southwest Tech was accepted as an AQIP institution, and in June, 2017 became a member of the Standard Pathway.

Higher Learning Commission
230 South LaSalle Street
Suite 7-500, Chicago, IL 60604
Phone: 800.621.7440

Higher Learning Commission and Standard Pathway

The Higher Learning Commission (HLC) is an independent corporation that accredits degree-granting post-secondary educational institutions of higher education in the United States. Institutions the Commission accredits are evaluated against the Commission's Criteria for Accreditation, a set of standards institutions must meet to receive and/or maintain accredited status.

Southwest Wisconsin Technical College follows a 10-year cycle the Higher Learning Commission refers to as the Standard Pathway. During years 4 and 10 of the Standard Pathway, the Commission conducts a comprehensive evaluation and site visit.

More information on the Higher Learning Commission or the Standard Pathway can be found at www.hlcommission.org

Program Accreditations and Licensure

Several of Southwest Tech's occupational programs are accredited by a professional entity, approved by a State agency, or are designed to lead to a license required for employment in the occupation. We have compiled the Program Accreditation and Licensure which lists the programs along with the professional accreditations related to their occupational area.



2026-2027 Tuition and Fees

Tuition and fees are established according to state statutes and Wisconsin Technical College System guidelines and may change from year to year. Students must pay all required fees according to Southwest Tech policies.

Associate, Technical, Certificate and Vocational Degree Courses (per credit)

- Wisconsin Residents and Online Classes *: \$157.45
- Out-of-State Residents: \$236.18

University Transfer - Liberal Arts Courses (per credit)

- Wisconsin Residents and Online Classes *: \$196.05
- Out-of-State Residents: \$294.08

2026-2027 Required Fees: All Courses

- Technology Fee (ChargerTech 360): \$350.00
- Activity Fee: 6% of current per-credit tuition rate
- Program Completion Fee: \$3.00 per Credit
- Material Fees: Varies per Class

*Non-Resident students enrolled in the Direct Entry Midwifery, Driver's Education, and Cancer Information Management programs are charged the out-of-state tuition rate on all classes, regardless of modality.

Note: Estimated cost for each program can be found on the [website](#) under each program's curriculum tab.

Out-of-State Tuition

Out-of-state tuition is 150% the state tuition rate. Non-Resident students enrolled in online classes will pay the resident tuition rate. Non-Resident students enrolled in the Direct Entry Midwifery, Driver's Education, and Cancer Information Management programs are charged the out-of-state tuition rate on all classes, regardless of modality.

Reciprocity Agreements

Southwest Tech's reciprocity agreement between Wisconsin and Minnesota enables a Minnesota resident to attend Southwest Tech and pay resident tuition. Southwest Tech also has program-specific reciprocity agreements with NICC and HCC. For further information about the reciprocity agreements and how to apply, please contact Financial Aid.

Technology Fee

For the 2026-2027 academic year, all eligible automatically enrolled students will be charged the technology fee of \$350 each for the Fall & Spring terms. Summer terms will not receive the charge. Graphic Web & Design students will be charged an additional \$425 for a total of \$750.

Student Activity Fee

6 percent of tuition, per credit, per semester. The Student Senate determines annually the distribution of these fees which are used to support programs such as student-led organizations, student government, intramural sports, special campus events and services.

Program Completion Fee

All students enrolling in credit classes will be charged a program completion fee of \$3.00 per credit.

Materials Fee

The fees vary based on consumable, tangible items used in the instructional process and are set by the Wisconsin Technical College System Board.

Course Resources

Course resources and supply costs are not included in tuition or any fees. Required course resources are through our third-party partner eCampus or may be purchased from any vendor/source available to students. Kits and supplies are available for purchase at the SWTC Chargers Bookstore.

Cost of Attendance (COA) 26-27

Cost of Attendance (COA) is a total of all the usual expenses of being a student. The COA sets the maximum amount of financial aid a student can receive.

Based on Wisconsin Residents

- Tuition and Fees:	\$5,240
- Living Expenses (Housing and Food)	\$10,910
- Books and Supplies	\$1,463
- Personal Expenses	\$3,084
- Transportation	3,899
- Charger Tech 360 Fee	\$700
- Loan Fees	\$85

Yearly Total (Living Away from Home) \$25,381

1 Semester Total (Living Away from Home) \$12,691

Complete Financial Aid information including payments and refunds can be found in the Student Handbook.

Financial Aid

Financial aid may be in the form of federal and/or state grants, federal work-study, scholarships, and/or federal student loans. We encourage all students who attend Southwest Tech to apply for financial aid before you start school, or as soon as possible after January 1 of each school year once you have completed the previous year's taxes. You may apply for financial aid before being accepted into a program; however, a financial aid award letter will not be processed until you are admitted into an eligible program. Go online to complete your Free Application for Federal Student Aid (**FAFSA**). **Southwest Tech's school code is 007699.**

The financial aid process can take several weeks. It is recommended that you apply as soon as possible. You may apply at any time, however there is no guarantee that the awarding process will be completed by the time your tuition is due. All associate degree programs are eligible for financial aid, along with most technical diploma programs.

Eligibility:

To be eligible for federal or state financial aid programs, you must:

- Apply and be accepted to an eligible academic program
- Be a U.S. citizen or an eligible non-citizen (permanent resident)
- Have a high school diploma, GED, HSED or homeschool completion certificate
- Be registered with the Selective Service (if required)
- Not be in default on a student loan
- Maintain satisfactory academic progress
- Complete a Master Promissory Note and Entrance Loan Counseling, if receiving loans

The process measures your financial strength and resources against your educational expenses while attending Southwest Tech. Most funding requires you be enrolled a minimum of half-time status (at least six credits each semester). Federal Pell grants, if eligible, can be awarded if you are enrolled in at least three credits per semester.

A financial aid award letter is sent to you once the awarding process is complete. This letter states the amount you have been awarded, however you must meet all funding requirements to be eligible. Disbursements for grants and the first half of your student loan(s) is approximately 30 days into the semester. The second half of your loan(s) is paid approximately 60 days into the semester.

Programs Not Eligible for Financial Aid

- Farm Business & Production Management
- Nursing Assistant
- Nail Technician/Manicurist
- EMT (Emergency Medical Technician)
- All certificate and continuing education programs

Student Success Plans

The caring faculty and staff at Southwest Tech are here to help you in every step of your admission journey by developing a student success plan. Student success plans include career assessments, budgeting for life during college, and a support and services plan. College means paying tuition and fees, as well as budgeting for housing, food, and books. Learn how to create a college student budget to pay for life by setting up an appointment with our team. Email financial-aid@swtc.edu.

Veterans/Military Benefits

Southwest Tech is approved by the Wisconsin State Approving Agency for training of qualified veterans and eligible dependents under the GI Bill®. For more information, contact the School Certifying Official in the Financial Aid Office (608.822.2321) or your local County Veterans Service Officer (608.723.2756). Southwest Tech cannot determine eligibility—this is determined by the VA. Veterans benefits do not exclude you from financial aid or scholarships.

Federal Programs

- Post-9/11 GI Bill® (Chapter 33): For individuals with at least 90 days of service after September 11, 2001, or those discharged with a service-connected disability after 30 days, with an honorable discharge. Effective for training on or after August 1, 2009.
- Montgomery GI Bill® (Chapter 30): For active duty enlistees after June 30, 1985, who contributed \$100/month for the first 12 months.
- Service-Connected Disabled Veterans (Chapter 31): For veterans with a 20% or greater service-connected disability.
- Survivors' and Dependents' (Chapter 35): For spouses and children of 100% service-connected disabled or deceased veterans; includes in-state tuition eligibility (effective August 1, 2022).
- Selected Reserve (Chapter 1606): For qualifying Reserve and National Guard members.

State Programs

- Wisconsin GI Bill®: Covers full tuition and fees for eligible veterans and dependents for up to 8 semesters or 128 credits within the UW or WTCS systems.
- Wisconsin National Guard Tuition Grant: Reimbursement grant; tuition must be paid upfront. Applications are due each term or within 60 days after.

Visit the U.S. Department of Veterans Affairs or the Southwest Tech Veterans Service Office for details.

In-State Tuition

Active duty service members (30+ days) and their spouses/dependents pay in-state tuition. This rate continues as long as the student remains continuously enrolled, even if the service member is reassigned out of state.

Protections for Students Using VA Benefits (Ch. 33 & 31)

Southwest Tech will not charge late fees, require upfront payment or additional loans, restrict access to services, or drop students due to delayed VA payments.

To receive these protections, students must submit a Certificate of Eligibility (COE) or statement of benefits and any required enrollment documentation. Protections apply for up to 90 days after certification with the VA.

Charger Tech 360

With the Charger Tech 360 program, students receive a HP EliteBook laptop, a branded Targus Groove backpack, and technical support for the device. Your HP laptop comes with a number of preinstalled software packages including Adobe Reader - PDF viewer; Microsoft 365 - Word, Excel, PowerPoint, Access, Outlook, OneNote; Respondus Lockdown Browser; TeamViewer - Remote support software; VLC Media Player; Windows Defender; and Zoom. Additional program-specific software will also be available for download.

Who is Automatically Enrolled?

Students who are:

- Enrolled or accepted to the waitlist of a Financial Aid eligible program, and
- Are registered for 6 or more credits

At this time, there is no option to opt out of the program for eligible students.

Summer Students

Program students enrolled in summer courses are also eligible to receive a laptop. After registering for classes, visit the Charger Tech webpage to schedule a pickup appointment.

Optional Enrollment

Optional enrollment is only available to students in the following programs:

- CNC Machine Operator/Programmer
- Driver Safety Education Certification
- EMT/AEMT
- Logistics Certificate
- Nail Technician
- Payroll Assistant
- Phlebotomist/Specimen Processor
- Production Planner Certificate
- Purchasing Agent/Buyer Certificate
- Tax Preparer Assistant
- Technical Studies – Journey worker
- Undeclared Students

Cost

\$350 technology fee per term is added to your student account (Fall & Spring). Graphic Web & Design Students will be charged an additional \$425 for a total of \$750.

How to Register & Get Your Laptop

Eligibility opens by 8:00 a.m. on the business day after you register for classes.

Steps

- Log into your [Student Portal](#) using your Southwest Tech username and password.
- Locate the Charger Tech 360 tab on the left of your screen.
- Follow the instructions to receive your laptop.

Delivery Options

- In-person students: Pick up at orientation
- Online students: Shipped via UPS

Go to your student portal or visit the [Charger Tech 360 webpage](#) for help, support, and additional details.

Credit for Prior Learning

Credit for prior learning gives students at Southwest Tech the opportunity to earn credit for college-level learning that was acquired outside of the classroom. There are six different ways to earn credit.

Transfer Credits

Credits earned at another accredited institution may transfer if related to the program of study and have a grade of "C" or better. Transfer credits also include advanced standing and transcribed credits completed in high school.

Request a transfer credit evaluation is available online.

Challenge Exam

A challenge exam is developed by Southwest Tech faculty and allows the student to demonstrate that he/she can meet the competencies of the course. Depending on the course, a test may be a standard test or a demonstration test.

Military Experience

Credits may be awarded based on the training taken during military service and/or based on the position held in the military. Southwest Tech uses ACE (American Council on Education) recommendations for military credits.

National Tests

Southwest Tech is a CLEP testing center and accepts several CLEP tests for credits. Other national tests are also accepted including Advanced Placement (AP), DSST (DANTES), and Excelsior as examples.

Industry Recognized Certificate Crosswalks

Employers may offer training in the workplace that leads to an industry recognized certificate. Southwest Tech will recognize certificates that relate to the program courses and meet the competencies of the course.

Portfolios

A portfolio is a detailed documentation illustrating what you have learned and how it relates to a Southwest Tech course.

For more information and how to earn **credit for prior learning**, visit [or contact Student Services](#), email admission@swtc.edu or call 608.822.2354.

Helpful Resources and Services

Financial Services

Apply early for the best chance at funding. Complete the FAFSA at www.studentaid.gov (School Code: 007699). If you are experiencing a financial emergency, contact Financial Aid for support.

Scholarships

To qualify:

- Be accepted to a program
- Maintain a minimum of six credits
- Have a FAFSA on file for the current academic year
- Complete a financial plan with a member of the financial aid team.

Scholarships are awarded on a rolling basis throughout the year so as soon as the student meets the criteria above, they will be considered eligible.

Tuition Payments

Pay in full or set up a payment plan before the term begins.

Veterans Education Benefits

For assistance with GI Bill® benefits, contact the School Certifying Official or email veterans@swtc.edu

Student Employment

Explore job opportunities for both work-study (awarded through financial aid) and non-work-study students.

Academic Services

Get tutoring (in person, phone, or online) through the Knox Learning Center.

Care Closet

Free essentials like hygiene items, laundry supplies, and diapers are available. Contact advising, Financial Aid, Knox Learning Center, or counseling. Confidential and respectful..

Career Services

Support with job searches, resumes, and interviews. Job fairs held twice yearly.

Childcare

Care for ages newborn through 12 years old. Contact early for availability. Drop-in for ages 2 and older requires a 24-hour notice.

Disability Services

Request accommodations or schedule an appointment online.

Food Pantry-Katie's Cupboard

Located in the Knox Learning Center for emergency or supplemental food.

Food Service-Chargers Cafe

Affordable meals, daily specials, and online ordering available.

Housing

Apartment-style housing within walking distance. First-come, first-served.

Laptop Program: Charger Tech 360

Provides the laptop, software, and support.

Charger Technology Support Services

Stop in the Knox Learning Center or visit kb.swtc.edu for virtual support options.

Law for Learners

Free legal help for students.

Library Services

Located in Knox Learning Center with books, media, and study resources.

Mental Health Counseling Services

Free, confidential mental health support.

Salon Services

Affordable hair and nail services performed by Cosmetology students.

Textbooks and Merchandise

Order textbooks online at swtc.ecampus.com

Shop apparel and supplies in-store or online:
www.swtcbookstore.com

Campus Life

Being a Charger means experiencing all that our campus has to offer. Enjoy events, clubs, and Charley's Student Center to relax and study.

Athletics

www.swtc.edu/athletics

Compete on the Chargers Golf, Clay Target, and Esports Teams. Join by filling out the Recruit Me form online.

A fitness center, intramural sports, disc golf, and walking trails are also available.

Accounting

Program Number 10-101-1
Associate Degree, 65 Credits
100% Online Option

The Accounting program provides the educational background and training required for entry positions in private business and industry, governmental agencies, and public accounting firms. Students in this program receive a thorough foundation in accounting theory and practice as students learn to perform a variety of business accounting functions. Graduates are prepared for positions as junior accountants in public accounting firms, private industry, or government service.

Program Basics

- Associate degree requiring a minimum of two years to complete
- Face-to-face and online classes
- High school articulation courses accepted
- Financial aid available
- Classes start in August or January
- Modified plans available
- Articulation agreements in place for transfer to four-year university programs

Program Outcomes

At the completion of this program, students are expected to be able to:

- Process financial transactions throughout the accounting cycle.
- Analyze financial and business information to support planning and decision-making.
- Perform payroll preparation, reporting, and analysis tasks.
- Perform cost accounting preparation, reporting, and analysis tasks.
- Perform organizational and/or individual tax accounting preparation, reporting, and analysis tasks.
- Identify internal controls to reduce risk.
- Utilize computers and calculators as they apply to the accounting profession.

Related Degrees and Certificates

- Payroll Assistant Certificate
- Tax Preparer Assistant Certificate
- Accounting Assistant Technical Diploma

Southwest Wisconsin
TECHNICAL COLLEGE

Start your application today!

The curriculum for the 2026-2027 academic year is tentative. Current students should view their degree audit in the Student Portal.

Semester 1: 15 Credits

Course Number	Course Name	Credits
10-101-111	Accounting 1	4
10-102-105	Introduction to Business	3
10-103-118	Intermediate Microsoft Excel	1
10-103-128	Beginning Microsoft Office	1
10-801-198	Speech	3
10-809-199	Psychology of Human Relations	3

Semester 2: 17 Credits

Course Number	Course Name	Credits
10-101-112	Accounting 2	4
10-101-121	Advanced Accounting Spreadsheets	3
10-101-123	Payroll Applications	2
10-101-127	QuickBooks	1
10-101-131	Federal Income Tax	4
10-804-123	Math with Business Applications OR	
10-804-189	Introductory Statistics	3

Semester 3: 16 Credits

Course Number	Course Name	Credits
10-101-113	Accounting 3	4
10-101-116	Cost Accounting	3
10-102-109	Business Law I	3
10-801-136	English Composition 1	3
10-809-196	Intro to Sociology	3

Semester 4: 17 Credits

Course Number	Course Name	Credits
10-101-114	Accounting 4	4
10-101-125	Managerial Accounting	3
10-101-130	Accounting Work Based Learning	1
10-102-135	Management Information Systems	3
10-801-197	Technical Reporting	3
10-809-195	Economics OR	
20-809-287	Principles of Macroeconomics	3

Accounting Assistant

Program Number 31-101-1
Technical Diploma, 32 Credits
100% Online Option

The Accounting Assistant program trains students in basic accounting for sole proprietorships, partnerships, and corporations. Students also study income tax preparation for individuals, payroll accounting, and computerized accounting. They can then choose to specialize in business taxation or business spreadsheet applications.

Accounting Assistant graduates may work in a small business and be responsible for various aspects of book-keeping, or work in a larger firm under the supervision of an accountant, and specialize in a certain area.

Program Basics

- Technical diploma; one year or more to complete.
- Day and evening classes.
- Available in Face-to-face and online class formats.
- High school articulation courses accepted.
- Financial aid available.
- Classes start in August or January.
- Associate degree accounting program can be completed in one additional year.
- Modified plan available.

Program Outcomes

At the completion of this program, students are expected to be able to:

- Process financial transactions throughout the accounting cycle.
- Analyze financial and business information to support planning and decision-making.
- Perform payroll preparation, reporting, and analysis tasks
- Perform cost accounting preparation, reporting, and analysis tasks.
- Perform organizational and/or individual tax accounting preparation, reporting, and analysis tasks.
- Identify internal controls to reduce risk.
- Utilize computers and calculators as they apply to the accounting profession.

Related Degrees and Certificates

- Payroll Assistant Certificate
- Tax Preparer Assistant Certificate
- Accounting Associate Degree

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TECHNICAL COLLEGE

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Semester 1: 15 Credits

Course Number	Course Name	Credits
10-101-111	Accounting 1	4
10-102-105	Introduction to Business	3
10-103-118	Intermediate Microsoft Excel	1
10-103-128	Beginning Microsoft Office	1
10-801-198	Speech	3
10-809-199	Psychology of Human Relations	3

Semester 2: 17 Credits

Course Number	Course Name	Credits
10-101-112	Accounting 2	4
10-101-121	Advanced Accounting Spreadsheets	3
10-101-123	Payroll Applications	2
10-101-127	QuickBooks	1
10-101-131	Federal Income Tax	4
10-804-123	Math w Business Apps OR	
10-804-189	Introductory Statistics	3

Agribusiness Management

Program Number 10-006-7
Associate Degree, 63 Credits

Combine business and science to help farmers produce a product and make a profit. As a student in the Agribusiness Science & Technology – Agribusiness Management program, you'll learn: agricultural input supply, production, finance, commodity assembly and processing, and marketing

Program Basics

- Associate degree requiring a minimum of two years to complete
- Classes are offered daytime, face to face, and on campus
- Fall or Spring Start
- Financial aid eligible
- Credit for prior learning may be available
- High school articulation courses accepted

Program Outcomes

At the completion of this program, students are expected to be able to:

- Analyze opportunities in agriculture.
- Apply relevant technologies.
- Demonstrate professionalism skills within the agricultural career areas.
- Develop a management plan in agriculture.
- Apply economic and marketing strategies to agribusiness industry.

Related Degrees and Certificates

- Agronomy
- Animal Science

Southwest Wisconsin
TECHNICAL COLLEGE

Start your application today!

The curriculum for the 2026-2027 academic year is tentative. Current students should view their degree audit in the Student Portal.

Semester 1: 14 Credits

Course Number	Course Name	Credits
10-006-161	Career Development in Agriculture	1
10-006-180	Animal Science	3
10-093-101	Plant and Soil Science	3
10-103-106	Beginning Microsoft Excel	1
10-801-136	English Composition 1	3
10-804-189	Introductory Statistics	3

Semester 2: 15 Credits

Course Number	Course Name	Credits
10-006-113	Precision Ag Technologies	3
10-006-133	Agribusiness Financial Management	3
10-006-136	Agricultural Commodity Marketing	3
10-070-105	Ag Safety, Electrical, & Maintenance	3
10-801-198	Speech	3

Semester 3: 3 Credits

Course Number	Course Name	Credits
10-006-197	Agribusiness Experiential Learning	3

Semester 4: 16 Credits

Course Number	Course Name	Credits
10-006-134	Agricultural Equipment Management	3
10-006-137	Agribusiness Marketing & Promotion	3
10-006-132	Agribusiness Operations	3
10-101-111	Accounting 1	4
10-809-199	Psychology of Human Relations	3

Semester 5: 15 Credits

Course Number	Course Name	Credits
10-006-164	Agriculture Law	3
10-006-167	Agriculture Risk Management	3
10-102-129	Human Resources Management	3
10-104-105	Selling Principles	3
10-809-196	Intro to Sociology	3

Agricultural Power & Equipment Technician

Program Number 32-070-1
Technical Diploma, 62 Credits

Agricultural equipment has become more complex, precise, and expensive, and it is becoming more difficult for individuals to repair their own equipment. Students in this program learn the theory, operation, and repair of a variety of tillage, planting, and harvesting equipment, as well as tractors. Students study diesel engines, drivetrains, electrical systems, and hydraulics. This program includes a dealership internship during the summer between the first and second year; which, prepares the student to be employed as technicians at farm implement dealerships, repair shops, businesses that use farm equipment or diesel engines, or to work on their own equipment.

Program Basics

- Technical diploma - requiring a minimum of two years to complete.
- Day classes.
- High school articulation courses accepted.
- Financial aid available.
- Classes start in August and January.

Program Outcomes

At the completion of this program, students are expected to be able to:

- Repair electrical systems
- Analyze an electronic system
- Repair hydraulic systems
- Follow industry safety standards
- Repair power trains/transmissions
- Repair internal combustion engines

Southwest Wisconsin
TECHNICAL COLLEGE

Start your application today!

The curriculum for the 2026-2027 academic year is tentative. Current students should view their degree audit in the Student Portal.

Semester 1: 15 Credits

Course Number	Course Name	Credits
31-801-310	Workplace Communication	2
31-804-305	Applied Mathematics	2
32-070-305	Intro to Ag Electrical Systems	3
32-070-309	Farm Machinery Maintenance	5
32-070-314	Ag Shop Safety & Practices	1
32-442-301	Related Welding	2

Semester 2: 15 Credits

Course Number	Course Name	Credits
32-070-341	Basic Hydraulics	4
32-070-346	Consumer Equipment Maintenance & Repair	3
32-070-347	Farm Equipment I	3
32-070-348	Farm Equipment II	3
32-806-303	Science of Mechanics	2

Semester 3: 2 Credits

Course Number	Course Name	Credits
32-070-350	Ag Power Occupational Internship	2

Semester 4: 16 Credits

Course Number	Course Name	Credits
32-070-301	Farm Machinery Harvesting	5
32-070-303	Chassis and Drive Systems	5
32-070-344	Air Conditioning	2
32-070-345	Advanced Electrical Systems	4

Semester 5: 14 Credits

Course Number	Course Name	Credits
32-070-311	Diesel Engines I	5
32-070-312	Diesel Engines II	5
32-070-343	Applied Hydraulics	4

Agronomy

Program Number 10-093-9
Associate Degree, 65 Credits

Designed to equip students with cutting-edge skills in agricultural technology, crop management, and data-driven decision-making, this innovative program combines classroom instruction with hands-on experience on our newly acquired 80 acres of cropland, ensuring graduates gain practical, work-based learning opportunities. With access to advanced equipment and real-world scenarios, students will be fully prepared to lead and innovate in the evolving agricultural industry.

Program Basics

- Associate degree requiring a minimum of two years to complete
- Classes are offered daytime, face to face, and on campus
- Fall or Spring start
- Financial aid eligible
- Credit for prior learning may be available
- High school articulation courses accepted

Program Outcomes

At the completion of this program, students are expected to be able to:

- Analyze opportunities in agriculture.
- Apply relevant technologies.
- Demonstrate professionalism skills within the agricultural career areas.
- Develop a management plan in agriculture.
- Develop a crop management plan.

Related Degrees and Certificates

- Agribusiness Management
- Agronomy Technician
- Animal Science

Southwest Wisconsin
TECHNICAL COLLEGE

Start your application today!

The curriculum for the 2026-2027 academic year is tentative. Current students should view their degree audit in the Student Portal.

Semester 1: 15 Credits

Course Number	Course Name	Credits
10-006-161	Career Development in Agriculture	1
10-093-110	Drone FAA Part 107 Training	1
10-093-116	Introduction to Soils	3
10-093-160	Plant Science	3
10-103-106	Beginning Microsoft Excel	1
10-801-136	English Composition I	3
10-804-189	Introductory Statistics	3

Semester 2: 18 Credits

Course Number	Course Name	Credits
10-070-105	Ag Safety, Electrical & Maintenance	3
10-093-107	Introduction to Precision Ag Technologies	3
10-093-108	Soil and Crop Protection Products	3
10-093-109	Pest ID & Mgt/Crop Scouting and Control	3
10-093-111	Agricultural Precision Planting	2
10-093-124	Pesticide Applicator Training	1
10-801-198	Speech	3

Semester 3: 3 Credits

Course Number	Course Name	Credits
10-006-197	Agribusiness Experiential Learning	3

Semester 4: 17 Credits

Course Number	Course Name	Credits
10-006-162	Agribusiness Operations	3
10-093-102	Grain Production & Management	3
10-093-104	Applications of GIS in Agriculture	2
10-093-112	Agricultural Precision Harvesting	2
10-093-113	Agricultural Precision Applications	2
10-093-114	Precision Electronic Adoptions	2
10-809-199	Psychology of Human Relations	3

Semester 5: 12 Credits

Course Number	Course Name	Credits
10-093-115	Ag Data Collection, Analysis, and Mgmt.	3
10-093-117	Remote Sensing & Precision Nutrient Planning	3
10-104-105	Selling Principles	3
10-809-196	Intro to Sociology	3

Agronomy Technician

Program Number 31-093-3
Technical Diploma, 65 Credits

The Agronomy Technician program prepares you to step confidently into one of agriculture's most essential and rapidly advancing fields. You'll gain the foundational knowledge of soils, crops, and nutrient management, while learning to use the latest precision agriculture tools that modern farms depend on. From soil sampling and scouting to variable-rate applications and data collection, you'll develop the hands-on skills needed to support efficient, sustainable crop production. As an embedded technical diploma, this program fully ladders into the Agronomy Associate Degree—allowing you to keep building your education and career momentum.

Program Basics

- One-year technical diploma
- Combines classroom learning with hands-on fieldwork on 80 acres of cropland
- Financial aid eligible

Program Outcomes

At the completion of this program, students are expected to be able to:

- Analyze opportunities in agriculture
- Apply relevant technologies in agronomy
- Demonstrate professionalism skills within the agriculture career areas
- Apply agronomic principles and practice

Related Degrees and Certificates

- Agribusiness Management
- Agronomy
- Animal Science
- Dairy and Livestock Technician

Southwest Wisconsin
TECHNICAL COLLEGE

Start your application today!

The curriculum for the 2026-2027 academic year is tentative. Current students should view their degree audit in the Student Portal.

Semester 1: 15 Credits

Course Number	Course Name	Credits
10-006-161	Career Development in Agriculture	1
10-093-110	Drone FAA Part 107 Training	1
10-093-116	Introduction to Soils	3
10-093-160	Plant Science	3
10-103-106	Beginning Microsoft Excel	1
10-801-136	English Composition 1	3
10-804-189	Introductory Statistics	3

Semester 2: 18 Credits

Course Number	Course Name	Credits
10-070-105	Ag Safety, Electrical & Maintenance	3
10-093-107	Introduction to Precision Ag Technologies	3
10-093-108	Soil and Crop Protection Products	3
10-093-109	Pest ID & Mgt./Crop Scouting and Control	3
10-093-111	Agricultural Precision Planting	2
10-093-124	Pesticide Applicator Training	1
10-801-198	Speech	3

Semester 3: 3 Credits

Course Number	Course Name	Credits
10-006-197	Agribusiness Experiential Learning	3

Animal Science

Program Number 10-091-7
Associate Degree, 64 Credits

Whether your passion is dairy or livestock the innovative training of our Animal Science program will provide you with the knowledge and skills for a successful career. Classes focus on animal nutrition, herd health, reproduction, genetics, milk or meat quality, record keeping, and industry related technology.

Program Basics

- Associate degree requiring a minimum of two years to complete
- Classes are offered daytime, face to face, and on campus
- Fall or Spring Start
- Financial aid available
- Credit for prior learning may be available
- High school articulation courses accepted

Program Outcomes

At the completion of this program, students are expected to be able to:

- Create a livestock management plan.
- Analyze opportunities in agriculture.
- Apply relevant Technology.
- Demonstrate professionalism skills within the agricultural career areas.
- Develop a management plan in agriculture.

Related Degrees

- Agronomy
- Agronomy Technician
- Agribusiness Management

Southwest Wisconsin
TECHNICAL COLLEGE

Start your application today!

The curriculum for the 2026-2027 academic year is tentative. Current students should view their degree audit in the Student Portal.

Semester 1: 14 Credits

Course Number	Course Name	Credits
10-006-161	Career Development in Agriculture	1
10-006-180	Animal Science	3
10-093-101	Plant and Soil Science	3
10-103-106	Beginning Microsoft Excel	1
10-801-136	English Composition I	3
10-804-189	Introductory Statistics	3

Semester 2: 17 Credits

Course Number	Course Name	Credits
10-006-123	Artificial Insemination Training	1
10-006-150	Farm Animal Reproduction	3
10-070-105	Ag Safety, Electrical & Maintenance	3
10-080-117	Animal Nutrition & Ration Balancing	4
10-080-118	Introduction to Animal Health	3
10-801-198	Speech	3

Semester 3: 3 Credits

Course Number	Course Name	Credits
10-006-197	Agribusiness Experiential Learning	3

Semester 4: 18 Credits

Course Number	Course Name	Credits
10-006-162	Agribusiness Operations	3
10-080-119	Livestock Housing & Equipment	3
10-080-120	Animal Genetics	3
10-093-106	Crop Production & Management	3
10-809-199	Psychology of Human Relations	3
10-006-147	Meat Quality OR	3
10-006-146	Milk Production	

Semester 5: 12 Credits

Course Number	Course Name	Credits
10-006-117	Agribusiness Performance Standards	3
10-082-101	Automation in Agriculture	3
10-809-196	Intro to Sociology	3
10-006-153	Dairy Production Management OR	3
10-006-157	Livestock Production Management	

Applicator Technician

Program Number 61-093-4
Pathway Certificate, 10 Credits

The Applicator Tech certificate program prepares you to mix or apply pesticides, herbicides, fungicides, or insecticides through sprays, dusts, vapors, soil incorporations or chemical application on crops. This certificate will prepare you for entry as an Applicator Technician.

Program Basics

- These courses are not eligible for financial aid unless the student is enrolled in an eligible program. Please see an advisor to determine financial aid eligibility.

Southwest Wisconsin
TECHNICAL COLLEGE
Start your application today!

The curriculum for the 2026-2027 academic year is tentative. Current students should view their degree audit in the Student Portal.

Semester 1: 15 Credits

Course Number	Course Name	Credits
10-070-105	Ag Safety, Electrical, & Maintenance	3
10-093-108	Soil and Crop Protection Products	3
10-093-109	Pest ID & Management/Crop Scouting and Control	3
10-093-124	Pesticide Applicator Training	1

Automation Systems Technology

Program Number 10-664-1

Associate Degree, 65 Credits

The Automation Systems Technology program prepares students for careers in the rapidly growing field of industrial automation. This program is designed for both beginners and individuals looking to build on existing technical skills. Students learn the tools and technologies used in modern automated systems, including programmable logic controllers (PLCs), robotics, and motion control.

Program Basics

- Associate degree, requiring a minimum of two years to complete.
- High school articulation courses accepted.
- Financial aid available.
- Classes start in August and January.

Program Outcomes

At the completion of this program, students are expected to be able to:

- Perform work safely.
- Troubleshoot electrical and mechanical systems and devices.
- Repair electrical and mechanical systems.
- Communicate technical information.
- Setup, install, and integrate electrical and mechanical systems and devices.

Southwest Wisconsin
TECHNICAL COLLEGE

Start your application today!

The curriculum for the 2026-2027 academic year is tentative. Current students should view their degree audit in the Student Portal.

Semester 1: 17 Credits

Course Number	Course Name	Credits
10-620-101	DC and AC Fundamentals	5
10-620-124	Welding for Maintenance	2
10-620-163	Intro to Mechatronics	1
10-620-165	Maintenance, Mechanics, and Materials	4
10-620-166	Residential Electrical Wiring	2
10-804-113	College Technical Math 1A	3

Semester 2: 17 Credits

Course Number	Course Name	Credits
10-449-160	Industrial Safety Practices & Career Dev	1
10-620-107	Hydraulics and Pneumatics	3
10-620-148	Intro to Motor Controls	2
10-620-149	Intro to Programmable Controls	2
10-620-162	Manual Machine Shop Fundamentals	3
10-806-143	College Physics 1	3
10-809-198	Introduction to Psychology OR	
10-809-199	Psychology of Human Relations	3

Semester 3: 17 Credits

Course Number	Course Name	Credits
10-620-169	Process Control Systems	4
10-664-105	Automation Systems Wiring	2
10-664-106	Automation Systems Internship	1
10-664-107	Integrated Robotics	2
10-664-108	Intro to CAD Electrical	2
10-801-136	English Composition	3
10-809-196	Intro to Sociology	3

Semester 4: 14 Credits

Course Number	Course Name	Credits
10-620-159	Introduction to Frequency & Servo Drives	2
10-664-104	Integrated Systems Capstone	3
10-664-109	Advanced Robotics	2
10-664-110	Industrial Vision Systems & Smart Sensors	4
10-801-197	Technical Reporting	3

Automotive Technician

Program Number 32-404-2
Technical Diploma, 61 Credits

The Southwest Tech Automotive Technician program is accredited by the National Institute for Automotive Service Excellence (ASE) Education Foundation.

The Automotive Technician program teaches students essential servicing techniques, including the testing, repairing, and rebuilding of basic automotive systems, as well as diagnosis and repair of automotive and light truck electrical, mechanical, and hydraulic systems. Individuals who are mechanically talented, like to solve problems, and enjoy working with people may find success in the automotive technician field.

Program Basics

- Technical diploma, requiring a minimum of two years to complete.
- Day classes.
- High school articulation courses accepted.
- Financial aid available.
- Classes start in August.
- ASE Master Certified program.

Program Outcomes

At the completion of this program, students are expected to be able to:

- Service brake systems.
- Service electrical/electronic systems.
- Perform engine performance service.
- Service steering and suspension systems.
- Service automatic transmissions and transaxles.
- Perform engine repair service.
- Service heating and air conditioning systems.
- Service manual drive trains and axles.
- Exhibits a level of professionalism appropriate to an entry level technician.

Southwest Wisconsin
TECHNICAL COLLEGE

Start your application today!

The curriculum for the 2026-2027 academic year is tentative. Current students should view their degree audit in the Student Portal.

Semester 1: 15 Credits

Course Number	Course Name	Credits
31-804-305	Applied Mathematics	2
32-404-310	Auto Electrical I	3
32-404-314	Automotive Maintenance	3
32-404-334	Automotive Service Fundamentals	3
32-404-335	Automotive Brakes	3
32-404-336	Advanced Braking Systems	1

Semester 2: 15 Credits

Course Number	Course Name	Credits
32-404-311	Auto Electrical II	3
32-404-315	Engine Repair	5
32-404-322	Suspension & Steering	5
32-806-303	Science of Mechanics	2

Semester 3: 2 Credits

Course Number	Course Name	Credits
32-404-350	Auto Tech Occupational Internship	2

Semester 4: 13 Credits

Course Number	Course Name	Credits
32-404-312	Auto Electrical III	3
32-404-323	Emission Control Systems	2
32-404-326	Auto Engine Performance	4
32-404-329	Advanced Engine Systems	4

Semester 5: 16 Credits

Course Number	Course Name	Credits
31-801-310	Workplace Communication	2
32-404-321	Automatic Transmissions	5
32-404-327	Climate Control Systems	3
32-404-328	Hybrid and Electric Vehicles	2
32-404-337	Drivetrain Systems	4

Building Trades-Carpentry

Program Number 31-475-1

Technical Diploma, 28 Credits

Building Trades-Carpentry students are trained to construct residential structures using both standard and sustainable building materials. Students will prepare for this career through a blend of classroom theory and hands-on experience. Students will become adept at using hand tools, portable power tools, and other equipment common in the carpentry profession, as well as working with lumber, panel products, concrete, roofing materials, fasteners, and a variety of hardware. The skills needed for site layout and foundation work, rough framing, roof framing, and exterior and interior finish work will also be developed. In addition, blueprint reading, math, and estimating components will be studied.

Program Basics

- Technical diploma, requiring a minimum of one year to complete.
- Day classes.
- High school articulation courses accepted.
- Financial aid available.
- Classes start in August.

Program Outcomes

At the completion of this program, students are expected to be able to:

- Use hand and power tools and equipment.
- Apply industry recognized safety practices and procedures.
- Analyze sustainable building practices.
- Interpret construction drawings.
- Interpret building codes.
- Demonstrate industry building practices and material application.
- Attain the OSHA 10-hour Construction Certification as an orientation to occupational safety and health for workers.

Southwest Wisconsin
TECHNICAL COLLEGE

Start your application today!

The curriculum for the 2026-2027 academic year is tentative. Current students should view their degree audit in the Student Portal.

Semester 1: 15 Credits

Course Number	Course Name	Credits
31-408-308	Construction Safety and Health	1
31-475-312	Introduction to Building Trades	1
31-475-313	Site Layout, Foundations, and Formwork	2
31-475-314	Floor and Wall Framing	3
31-475-315	Blueprint Reading	2
31-475-316	Roof Systems	2
31-475-317	Exterior Finishes	2
31-804-305	Applied Mathematics	2

Semester 2: 13 Credits

Course Number	Course Name	Credits
31-475-318	Residential Estimating	2
31-475-319	Building Science and Sustainability	1
31-475-320	Insulation, Drywall Installing, and Finishing	2
31-475-321	Cabinet Construction and Installation	1
31-475-323	Windows, Doors, and Hardware Installation	2
31-475-324	Interior Finishes & Stair Construction	2
31-475-325	Building Trades Practicum	1
31-801-310	Workplace Communication	2

Business Management

Program Number 10-102-3
Associate Degree, 62 Credits
100% Online Option Available

The Business Management program provides students with the tools needed to meet the challenges of managing a business. Students receive a background in business operations, accounting, marketing, service operations management, human resource management, team building, problem solving, and business law. Business managers are found in every sector of the economy, in nearly all work settings. Graduates may find positions as an entry-level manager, assistant manager, office manager, team leader, or may start their own business.

The Business Management program may be completed during the day, in the evening, online, or through a combination of these options.

Program Basics

- Associate degree, requiring a minimum of two years to complete.
- Classes are offered during the day, evening, online, or any combination that works for you.
- High school articulation courses accepted.
- Financial aid available.
- Program starts in August or January, and is available in online as well as modified plan formats.

Program Outcomes

At the completion of this program, students are expected to be able to:

- Plan the operations of a business across functional areas
- Organize resources to achieve the goals of the organization
- Direct individuals and/or processes to meet organizational goals
- Control business processes

Southwest Wisconsin
TECHNICAL COLLEGE

Start your application today!

The curriculum for the 2026-2027 academic year is tentative. Current students should view their degree audit in the Student Portal.

Semester 1: 15 Credits

Course Number	Course Name	Credits
10-102-105	Introduction to Business	3
10-102-131	Developing a Business Plan	1
10-102-151	Personal Finance	1
10-103-128	Beginning Microsoft Office	1
10-801-136	English Composition 1	3
10-804-123	Math with Business Applications OR	
10-804-189	Introductory to Statistics	3
10-809-195	Economics OR	
20-809-287	Principles of Macroeconomics	3

Semester 2: 16 Credits

Course Number	Course Name	Credits
10-101-111	Accounting 1	4
10-102-109	Business Law I	3
10-102-130	Management Principles	3
10-801-198	Speech	3
10-104-130	Marketing Principles	3
10-809-198	Introduction to Psychology	3

Semester 3: 16 Credits

Course Number	Course Name	Credits
10-102-104	Principles of Finance	3
10-102-110	Business Law 2	3
10-102-129	Human Resources Management	3
10-809-198	Introduction to Psychology	3
10-809-143	Microeconomics	3
10-102-134	Business Internship	1

Semester 4: 15 Credits

Course Number	Course Name	Credits
10-102-108	Risk Management	3
10-102-115	Business Management Strategies	3
10-102-132	Operations Management	3
10-104-105	Selling Principles	3
10-102-135	Management Information Systems	3

Cancer Information Management

100% Online

Program Number 10-530-5

Associate Degree, 62 Credits

This two-year associate degree in Cancer Information Management prepares students for a career working in hospital-based or population-based registries. Various healthcare agencies need dedicated specialists to collect, manage, and disseminate vital data that goes into cancer registries. Graduates are eligible to take the NCRA Oncology Data Specialist (ODS) credentialing exam.

Program Basics

- Associate degree, requiring a minimum of two years to complete.
- All courses offered online allowing for 100% flexibility.
- Financial aid is available to those that qualify
- Students must achieve a grade of C or better in each course of the program curriculum to be eligible to progress
- Some credits transferrable for a Bachelor's degree in Health Information Management
- This program is accredited by the National Cancer Registrars Association (NCRA). Graduates are eligible to take the NCRA certification exam.

Program Outcomes

At the completion of this program, students are expected to be able to:

- Demonstrate knowledge of the cancer program organization's structure, operations and functions including Cancer Conference, Cancer Committee and Commission on Cancer.
- Define the standard setters, agencies and organizations involved in cancer data abstraction and data standardization, as well as their responsibilities.
- Apply fundamental concepts of the oncology disease process incorporating diagnostic and staging procedures (lab, imaging, surgery and pathology) and treatment modalities (surgery, chemotherapy, radiation therapy and immunotherapy) with an emphasis of major cancer sites.
- Analyze documentation to identify and report neoplasms, patient demographics, code diagnostic findings and cancer information including primary site, histology, stage and treatment.
- Monitor and maintain case abstraction through annual lifetime follow up for treatment, recurrence, cancer status and patient status for outcome information.
- Conduct statistical analysis and prepare data presentations related to epidemiology, incidence, quality measures and survival outcomes.

Southwest Wisconsin
TECHNICAL COLLEGE

Start your application today!

The Cancer Information Management associate degree program is accredited by the **National Cancer Registrars Association (NCRA)**.

The curriculum for the 2026-2027 academic year is tentative. Current students should view their degree audit in the Student Portal.

Semester 1: 7 Credits

Course Number	Course Name	Credits
10-501-101	Medical Terminology	3
10-806-177	General Anatomy & Physiology OR	
20-806-207	Anatomy and Physiology I	4

Semester 2: 14 Credits

Course Number	Course Name	Credits
10-501-107	Digital Literacy for Healthcare	2
10-530-180	Intro to Health Information	2
10-801-136	English Composition I	3
10-801-198	Speech	3
10-806-179	Adv Anatomy & Physiology OR	
20-806-208	Anatomy and Physiology II	4

Semester 3: 18 Credits

Course Number	Course Name	Credits
10-530-110	Introduction to Cancer Registry Management	3
10-530-111	Cancer Disease Management	4
10-530-158	Healthcare Law	3
10-530-190	Data Management in HIM	2
10-809-196	Intro to Sociology	3
10-809-198	Introduction to Psychology	3

Semester 4: 13 Credits

Course Number	Course Name	Credits
10-530-112	Oncology Coding and Staging	4
10-530-113	Cancer Statistics and Epidemiology	3
10-530-114	Abstracting Principles and Practice I	3
10-530-164	Intro to Health Informatics	3

Semester 5: 12 Credits

Course Number	Course Name	Credits
10-530-115	Cancer Patient Follow-up	2
10-530-116	Abstracting Principles and Practice II	3
10-530-117	Cancer Registry Management Practicum	3
10-530-118	CTR Prep	1
10-530-179	Management & Performance Improvement	3

Cancer Information Management Advanced Technical Certificate

100% Online

Program Number 61-307-3

Advanced Technical Certificate, 25 Credits

The Cancer Information Management Advanced Technical Certificate prepares students that have already earned at least an associate's degree in any profession for a career working in hospital-based or population-based registries. Various healthcare agencies need dedicated specialists to collect, manage, and disseminate vital data that goes into cancer registries. Graduates are eligible to take the NCRA Oncology Data Specialist (ODS) credentialing exam.

Program Basics

- All courses offered online allowing for 100% flexibility.
- Financial aid is available to those that qualify
- Students must achieve a grade of C or better in each course of the program curriculum to be eligible to progress

Program Outcomes

At the completion of this program, students are expected to be able to:

- Demonstrate knowledge of the cancer program organization's structure, operations and functions including Cancer Conference, Cancer Committee and Commission on Cancer.
- Define the standard setters, agencies and organizations involved in cancer data abstraction and data standardization, as well as their responsibilities.
- Apply fundamental concepts of the oncology disease process incorporating diagnostic and staging procedures (lab, imaging, surgery and pathology) and treatment modalities (surgery, chemotherapy, radiation therapy and immunotherapy) with an emphasis of major cancer sites.
- Analyze documentation to identify and report neoplasms, patient demographics, code diagnostic findings and cancer information including primary site, histology, stage and treatment.
- Monitor and maintain case abstraction through annual lifetime follow up for treatment, recurrence, cancer status and patient status for outcome information.
- Conduct statistical analysis and prepare data presentations related to epidemiology, incidence, quality measures and survival outcomes.

Southwest Wisconsin
TECHNICAL COLLEGE

Start your application today!

The Cancer Information Management advanced technical certificate program is accredited by the **National Cancer Registrars Association (NCRA)**.

The curriculum for the 2026-2027 academic year is tentative. Current students should view their degree audit in the Student Portal.

Semester 1: 7 Credits

Course Number	Course Name	Credits
10-530-110	Introduction to Cancer Registry Management	3
10-530-111	Cancer Disease Management	4

Semester 1: 12 Credits

Course Number	Course Name	Credits
10-530-112	Oncology Coding and Staging	4
10-530-113	Cancer Statistics and Epidemiology	3
10-530-114	Abstracting Principles and Practice I	3
10-530-115	Cancer Patient Follow-up	2

Semester 3: 12 Credits

Course Number	Course Name	Credits
10-530-116	Abstracting Principles and Practice II	3
10-530-117	Cancer Registry Management Practicum	3

Child Care Services

Program Number 31-307-1

Technical Diploma, 30 Credits

Students in this fast-growing field receive training in planning and implementing developmentally appropriate curricula for children in the birth-to-eight-years age range; using positive guidance techniques to manage an early childhood classroom; providing for the health, safety, and physical needs of the children; and work with families to provide connections for the child between home and their place of care.

Program Basics

- Technical diploma requiring a minimum of one year to complete
- Courses are available face-to-face and online.
- College up Education pathway for High School students option available
- Financial aid available.
- Classes start in August
- Advanced standing for early childhood experience may be granted with Southwest Tech instructor approval.
- Complete First Aid / CPR with AED for Infant/Children
- Join The Registry of Wisconsin Early Care Professional Development
- Complete the Fieldprint Fingerprinting Check

Program Outcomes

At the completion of this program, students are expected to be able to:

- Relate knowledge of child development to practice.
- Create relationships with children, family and the community.
- Apply observation, documentation and assessment strategies.
- Implement developmentally appropriate teaching and learning activities.
- Demonstrate professionalism.
- Follow health, safety and nutrition practices.

Southwest Wisconsin
TECHNICAL COLLEGE

Start your application today!

The curriculum for the 2026-2027 academic year is tentative. Current students should view their degree audit in the Student Portal.

Semester 1: 15 Credits

Course Number	Course Name	Credits
10-307-148	ECE: Foundations of ECE	3
10-307-151	ECE: Infant & Toddler Dev	3
10-307-160	ECE: Field Experience 1	3
10-307-167	ECE: Health, Safety, & Nutrition	3
10-809-196	Intro to Sociology	3

Semester 3: 15 Credits

Course Number	Course Name	Credits
10-307-108	ECE: Early Language & Literacy	3
10-307-170	ECE: Field Experience 2	3
10-307-179	ECE: Child Development	3
10-307-188	ECE: Guiding Child Behavior	3
10-801-136	English Composition 1	3

Clinical Medical Assistant

Program Number 30-509-5

1-Year Technical Diploma, 24 Credits

Clinical Medical Assistants are healthcare specialists who perform minor diagnostic tests and procedures, promote patient safety, mediate between patients and providers, guide patients through a clinic's facilities and procedures, and prepare stock examination and procedure rooms. Students will receive a hands-on technical education in this program and be prepared to serve in this role within three 8-week sessions, meeting the growing demand from healthcare organizations within the Southwest Wisconsin Technical College District.

Program Basics

- Technical diploma, requiring a minimum of one year to complete.
- Day classes.
- High school articulation courses accepted.
- Financial aid available.
- Classes start in August.
- Modified part-time curriculum available in 4-semester plan.
- Students scoring less than 11th grade level in three or more TABE subtests must enroll under a modified program.
- Students must achieve a "C" grade or better (78%) in each course of the program curriculum to be eligible to progress.

Program Outcomes

At the completion of this program, students are expected to be able to:

- Perform medical office administrative functions.
- Provide patient care in accordance with regulations, policies, laws, and patient rights.
- Perform medical laboratory procedures.
- Demonstrate professionalism in a healthcare setting.
- Demonstrate safety and emergency practices in a healthcare setting.

Southwest Wisconsin
TECHNICAL COLLEGE

Start your application today!

The curriculum for the 2026-2027 academic year is tentative. Current students should view their degree audit in the Student Portal.

Semester 1: 8 Credits

Course Number	Course Name	Credits
31-509-308	Pharm for Allied Health	2
31-509-321	CMA Clinical Skills 1	2
31-509-326	CMA Lab Procedures 1	2
31-509-328	Health & Diseases of the Human Body	2

Semester 2: 8 Credits

Course Number	Course Name	Credits
31-509-301	Medical Asst Admin Procedures	2
31-509-322	CMA Clinical Skills 2	3
31-509-324	CMA Clinical Experience 1	1
31-509-327	CMA Lab Procedures 2	2

Semester 2: 8 Credits

Course Number	Course Name	Credits
31-509-307	Medical Office Insurance & Finance	2
31-509-309	Medical Law, Ethics & Profession	2
31-509-323	CMA Clinical Skills 3	2
31-509-325	CMA Clinical Experience 2	2

CNC Setup Technician

Program Number 30-420-4
Technical Diploma, 18 Credits

Are you looking for a career that's in high demand, pays well, and offers plenty of room to grow? Southwest Tech's newly revamped CNC Setup Technician Program is your gateway to a successful future in manufacturing. Whether you're a high school student planning your next step or an adult ready for a career change, this program is built to set you up for success.

Program Basics

- Technical diploma
- Financial aid available
- Classes are offered daytime, face to face, and on campus
- Fall start
- Credit for prior learning may be available

Program Outcomes

At the completion of this program, students are expected to be able to:

- Apply basic safety practices in the machine shop
- Interpret industrial/engineering drawings
- Apply precision measuring methods to part inspection
- Perform basic machine tool equipment set-up and operation
- Perform programming, set-up, and operation of CNC Machine Tools

Dual Enrollment Opportunity

Dual enrollment in the CNC program allows high school students to jumpstart their careers by earning college credit while still in school. Gain hands-on experience with state-of-the-art technology and industry-relevant tools, preparing you for in-demand, high-wage careers in manufacturing. Not only will you save time and money by completing credits early, but you'll also build confidence in your abilities and develop skills that set you apart in the workforce. With dual enrollment, you can experience college-level coursework, explore career pathways, and graduate high school with a clear plan for your future.

To learn more, email Brianna Fortney, bfortney@swtc.edu or Brooke Marcue, bmarcue@swtc.edu today!

Southwest Wisconsin
TECHNICAL COLLEGE

Start your application today!

The curriculum for the 2026-2027 academic year is tentative. Current students should view their degree audit in the Student Portal.

Semester 1: 9 Credits

Course Number	Course Name	Credits
31-420-346	Machine Shop Safety & Measurement Tools	2
31-420-347	Print Reading I	1
31-420-348	Intro to Machine Tools	5
31-420-349	Computer Aided Machining Mill	1

Semester 2: 9 Credits

Course Number	Course Name	Credits
31-420-350	Computer Aided Machining Lathe	1
31-420-351	Computer Numerical Control	4
31-420-352	Print Reading II	1
31-420-353	CNC Fixturing & Measurement	2
31-420-354	Industry Experiential Learning	1

Cosmetology

Program Number 31-502-1

Technical Diploma, 41 Credits

The Cosmetology program combines theory with practice in the art of haircutting, styling, perm waving and chemical relaxing, haircolor, highlighting, foiling techniques, and nail and skin care. Students gain experience in Southwest Tech's Creative Elements Salon by working on mannequins, fellow students, and salon guests. Students also learn the business aspects of working in a salon, including professional and personal development, business practices, communication, and Wisconsin state law. Lower cost and less time than local competitors. Scholarships available for cosmetology program students.

Program Basics

- Technical diploma requiring three semesters or more to complete.
- Financial aid available.
- Special equipment and uniforms required.
- Opportunities to attend professional salon, beauty, and fashion shows.
- Cosmetology students must achieve a grade of C or better in each of the 502 program area courses to be eligible to progress from Semester 1 to Semester 2 and from Semester 2 into Semester 3. Students should check with instructor for updated regulations for taking the state Cosmetology licensure exam.

Note: In order to qualify for licensure for your cosmetology state board exam, you must be 18 years of age, have completed a minimum 1550 hours of instruction and the requirements of the Southwest Tech Cosmetology Program.

To graduate from this program and be eligible to take the state licensing examination, each student must:

- Successfully meet all Southwest Tech program requirements.
- Receive a passing grade of C in all program courses.
- Complete a minimum of 1550 theory and practical hours of training.

Program Outcomes

At the completion of this program, students are expected to be able to:

- Perform shampoo, haircut, and style service.
- Perform skin care services.
- Perform chemical services.
- Perform nail services.
- Develop business practices for industry success.

Southwest Wisconsin
TECHNICAL COLLEGE

Start your application today!

The curriculum for the 2026-2027 academic year is tentative. Current students should view their degree audit in the Student Portal.

Semester 1: 17 Credits

Course Number	Course Name	Credits
31-502-301	Basic Hair Design	5
31-502-302	Salon/Spa Science	2
31-502-303	Chemical Restructuring	2
31-502-304	Haircoloring and Techniques	3
31-502-305	Nail Technology	3
31-502-320	Salon Services I-Fundamentals	2

Semester 2: 18 Credits

Course Number	Course Name	Credits
31-502-306	Basic Facials	2
31-502-307	Salon/Spa Management	2
31-502-315	Salon Services II-Basic Concepts	4
31-502-316	Salon Services III-Skill Building	4
31-502-317	Salon Services IV-Intermediate Skills	4
31-502-321	Salon Services V-Proficiency Building	2

Semester 3: 6 Credits

Course Number	Course Name	Credits
31-502-323	Salon Services VI-Advanced Techniques	3
31-502-324	Salon Advanced Internship	3

Criminal Justice-Law Enforcement 2

Program Number 10-504-6

Associate Degree, 67 Credits

The Criminal Justice Law Enforcement 2 program is designed specifically for aspiring law enforcement officers. Coursework integrates academic theory with practical application relevant to patrol operations, investigations, supervision, and community engagement. The program promotes critical thinking and problem-solving through case studies, scenario-based learning, and analysis of real-world incidents.

Through scenario-based learning, case studies, and experiential opportunities, students gain practical insight into criminal investigations, report writing, evidence handling, and courtroom processes. Graduates are prepared for entry-level positions in law enforcement, corrections, private security, and related fields, or for transfer to four-year institutions to pursue advanced degrees.

This program includes an embedded Wisconsin Law Enforcement Academy which will allow graduates to pursue entry-level law enforcement positions. The law enforcement academy has several additional entrance requirements. Interested students are encouraged to speak with a program advisor to learn more.

Program Basics

- Associate degree, requiring a minimum of two years to complete.
- The majority of classes are offered face to face on campus. Some training sessions will be hosted during the evening and outdoors.
- Fall start.
- Financial aid available.
- Credit for prior learning may be available.

Program Outcomes

At the completion of this program, students are expected to be able to:

- Recognize the personal demands required of police.
- Demonstrate proper police investigative procedures.
- Demonstrate effective communication with diverse populations.
- Understand legal principles and procedures to ensure justice.
- Apply Wisconsin statutes when analyzing criminal behavior.
- Demonstrate writing skills.
- Practice good personal fitness strategies.
- Practice effective team member attributes.

Southwest Wisconsin
TECHNICAL COLLEGE

Start your application today!

The curriculum for the 2026-2027 academic year is tentative. Current students should view their degree audit in the Student Portal.

Semester 1: 15 Credits

Course Number	Course Name	Credits
10-504-101	Introduction to Criminal Justice Studies	3
10-504-103	Criminal Law Studies	3
10-504-107	Criminal Investigation Application	3
10-504-154	Community Policing in a Diverse Society	3
10-801-136	English Composition 1	3

Semester 2: 15 Credits

Course Number	Course Name	Credits
10-504-102	Constitutional Law Application	3
10-504-119	Introduction to Corrections	3
10-801-198	Speech	3
10-809-196	Intro to Sociology	3
10-809-198	Introduction to Psychology	3

Semester 3: 15 Credits

Course Number	Course Name	Credits
10-504-112	Criminal Evidence	3
10-504-120	Homeland Security/Terrorism	3
10-504-127	Emergency Response and Intervention	3
10-504-135	Law Enforcement Academy Prep	3
10-804-189	Introductory Statistics	3

Semester 4: 22 Credits

Course Number	Course Name	Credits
30-504-500	Overview of Patrol Response	2
30-504-501	Physical Fitness	1
30-504-502	Application of Investigations	1
30-504-503	Overview of Criminal Justice	1
30-504-504	Principles of Emergency Vehicle Response	2
30-504-505	Sensitive Crimes	2
30-504-506	Overview of Investigations	2
30-504-507	Application of Traffic Response	3
30-504-508	Principles of Investigations	1
30-504-509	Principles of Tactics	5
30-504-510	Overview of Tactics	1
30-504-511	Scenario Assessment	1

Criminal Justice-Law Enforcement 720 Academy

Program Number 30-504-2

Technical Diploma, 22 Credits

The Southwest Tech 720-hour Law Enforcement Academy is designed for those seeking a law enforcement career in the State of Wisconsin. The instruction meets the criteria established by the Wisconsin Department of Justice Training and Standards Bureau. Training is delivered via lecture, group discussion, hands-on exercises, and scenario participation. The training instructors are a combination of educators and active or retired law enforcement officers. All instructors meet certification standards established by the Training and Standards Board.

Program Outcomes

The Law Enforcement 720 Academy is designed to lead to a license for Law Enforcement Officer in the state of Wisconsin. More licensure information can be found on the Program Accreditations and Licensure page.

Academy Timeline

Please email Ken Straka, kstraka@swtc.edu for the most recent Academy information.

Southwest Wisconsin
TECHNICAL COLLEGE

Start your application today!

Minimum Qualifications

- Please verify that you have met the following minimum qualifications as set forth in Wisconsin State Statute and Chapter LES 2, of Wisconsin Administrative Code:
- A citizen of The United States of America.
- Is or will be at least 18 years of age by the completion of training.
- Possess a valid Wisconsin driver's license or such other valid operator's permit recognized by the Wisconsin DOT as authorizing operation of a motor vehicle in Wisconsin.
- Have not been convicted of a federal felony, or of any offense which if committed in Wisconsin could be punished as a felony, and has not been convicted of a misdemeanor crime of domestic violence (18 U.S.C. §922(g)(9)), or I have been granted an absolute and unconditional pardon.
- Has earned a general educational development diploma or high school graduate who has completed a secondary education program through a public school, private school, an equivalency diploma program, or home education program within the United States or its territories.
- Earned at least 40 technical diploma level college credits or higher, or a technical diploma or higher from a college or university accredited by an accrediting agency recognized by the US Department of Education. Completing Southwest Tech's Criminal Justice Studies associate degree fulfills this requirement. (Law enforcement and tribal law enforcement officers who do not meet this requirement at the time of employment have 5 years from their date of employment to meet this requirement.)

Criminal Justice Studies

Program Number 10-504-5
Associate Degree, 60 Credits

The Criminal Justice Studies program provides students with a comprehensive foundation in the study of crime, law enforcement, courts, and corrections. Designed for individuals interested in careers in public safety, corrections, community supervision, and related fields, the program combines theoretical knowledge with practical, real-world application. Students examine ethical decision-making, constitutional law, investigative techniques, and the role of the criminal justice system in a diverse society. Coursework emphasizes critical thinking, communication, and problem-solving skills essential for modern criminal justice professionals.

Students examine advanced topics including constitutional law for law enforcement, criminal investigations, community-oriented policing, use-of-force decision-making, report writing, ethics, and contemporary challenges facing policing. The curriculum also emphasizes officer wellness, procedural justice, cultural competency, and effective or for transfer to four-year institutions to pursue advanced degrees.

This program supports lifelong learning and prepares students to serve their communities with integrity, accountability, and professionalism.

Program Basics

- Associate degree, requiring a minimum of two years to complete.
- Classes are offered daytime, face to face, and on campus.
- Fall start.
- Financial aid available.
- Credit for prior learning may be available.

Program Outcomes

At the completion of this program, students are expected to be able to:

- Recognize the personal demands required of police.
- Demonstrate proper police investigative procedures.
- Demonstrate effective communication with diverse populations.
- Understand legal principles and procedures to ensure justice.
- Apply Wisconsin statutes when analyzing criminal behavior.
- Demonstrate writing skills.
- Practice good personal fitness strategies.
- Practice effective team member attributes.

Southwest Wisconsin
TECHNICAL COLLEGE

Start your application today!

The curriculum for the 2026-2027 academic year is tentative. Current students should view their degree audit in the Student Portal.

Semester 1: 15 Credits

Course Number	Course Name	Credits
10-504-101	Introduction to Criminal Justice Studies	3
10-504-103	Criminal Law Studies	3
10-504-107	Criminal Investigation Application	3
10-504-154	Community Policing in a Diverse Society	3
10-801-136	English Composition 1	3

Semester 2: 15 Credits

Course Number	Course Name	Credits
10-504-102	Constitutional Law Application	3
10-504-119	Introduction to Corrections	3
10-801-198	Speech	3
10-809-196	Intro to Sociology	3
10-809-198	Introduction to Psychology	3

Semester 3: 15 Credits

Course Number	Course Name	Credits
10-504-112	Criminal Evidence	3
10-504-120	Homeland Security/Terrorism	3
10-504-127	Emergency Response and Intervention	3
10-504-128	Criminal Justice Internship	3
10-804-189	Introductory Statistics	3

Semester 4: 15 Credits

Course Number	Course Name	Credits
10-504-126	Communication Principles for Emergency Services	3
10-504-157	Public Safety Agency Administration	3
10-504-170	United States Court Systems	3
10-504-171	Juvenile Justice Applications	3
10-809-166	Introduction to Ethics: Theory and App	3

Dairy and Livestock Technician

Program Number 31-091-5

Technical Diploma, 34 Credits

The Dairy and Livestock Technician program will prepare you with the knowledge and skills needed to work with animals. Focus is on animal reproduction, nutrition, and health.

Program Basics

- Technical diploma
- Classes are offered daytime, face to face, and on campus
- Fall start
- Credit for prior learning may be available

Program Outcomes

At the completion of this program, students are expected to be able to:

- Analyze opportunities in livestock based agriculture.
- Apply relevant technologies used in the livestock industry.
- Demonstrate professionalism skills within the agriculture career areas.
- Apply dairy and livestock principles and practices.

Related Degrees

- Agribusiness Management
- Agronomy
- Agronomy Technician
- Animal Science

Southwest Wisconsin
TECHNICAL COLLEGE

Start your application today!

The curriculum for the 2026-2027 academic year is tentative. Current students should view their degree audit in the Student Portal.

Semester 1: 14 Credits

Course Number	Course Name	Credits
10-006-161	Career Development in Agriculture	1
10-006-180	Animal Science	3
10-093-101	Plant and Soil Science	3
10-103-106	Beginning Microsoft Excel	1
10-801-136	English Composition I	3
10-804-189	Introductory Statistics	3

Semester 2: 17 Credits

Course Number	Course Name	Credits
10-006-123	Artificial Insemination Training	1
10-006-150	Farm Animal Reproduction	3
10-070-105	Ag Safety, Electrical & Maintenance	3
10-080-117	Animal Nutrition & Ration Balancing	4
10-080-118	Introduction to Animal Health	3
10-801-198	Speech	3

Semester 3: 3 Credits

Course Number	Course Name	Credits
10-006-197	Agribusiness Experiential Learning	3

Dental Assistant

Program Number 30-508-2

Short-Term Technical Diploma, 16 Credits

The Dental Assistant program includes instruction and practical experience on how to use and care for dental equipment instruments, expose and process radiographs, record medical and dental information, assist with dental emergencies, perform basic office procedures, and maintain an inventory of supplies. Dental assistants are vital to the safe and efficient operation of the dental office, assisting the dentist in the treatment room, the lab, and with business administration.

Program Basics

- One Semester technical diploma
- This 16-week program includes 12 weeks of classroom and laboratory learning activities, followed by a 4-week externship in a dental clinic.
- Classes run full-time Monday through Friday for 12 weeks.
- The 4-week externship hours are based upon the dental clinic hours as assigned.
- Must earn at least a grade of C in all classroom/laboratory learning settings to be eligible to work under the direct supervision of a dentist in a four-week externship.

Program Outcomes

At the completion of this program, students are expected to be able to:

- Collect diagnostic and treatment data.
- Manage infection and hazard control.
- Perform clinical supportive treatment.
- Take diagnostic radiographs.
- Perform dental laboratory procedures.
- Provide patient oral health instructions.
- Assist in managing medical emergencies.
- Model professional behaviors, ethics and appearance.
- Perform coronal polishing on patients.

Southwest Wisconsin
TECHNICAL COLLEGE

Start your application today!

The curriculum for the 2026-2027 academic year is tentative. Current students should view their degree audit in the Student Portal.

Semester 1: 16 Credits

Course Number	Course Name	Credits
10-508-101	Dental Health Safety	1
10-508-103	Dental Radiography	2
10-508-113	Dental Materials	2
31-508-302	Dental Chairside	5
31-508-304	Dental & General Anatomy	2
31-508-306	Dental Assistant Clinical	3
31-508-307	Dental Assistant Professional	1

Early Childhood Education

Program Number 10-307-1

Associate Degree, 60 Credits

The Early Childhood Education program teaches students to implement developmentally-appropriate activities for children aged infant through eight years old. A focus on maintaining a safe and healthy environment, building relationships with parents and staff, and guiding children's behavior is emphasized. With an on-campus daycare facility, students have the opportunity to put theory into practice before embarking on a rewarding career.

Program Basics

- Associate degree, requiring a minimum of two years to complete.
- Day classes.
- High school articulation and college transfer courses accepted.
- Complete First Aid/CPR with AED for Infants/Children
- Join The Registry of Wisconsin Early Care Professional Development
- Complete Fieldprint Fingerprinting Check
- Financial aid available.
- Classes start in August.
- Advanced standing for early childhood experience may be granted.
- This program is not eligible for financial aid.

Program Outcomes

At the completion of this program, students are expected to be able to:

- Apply child development theory to practice.
- Cultivate relationships with children, family and the community.
- Assess child growth and development.
- Use best practices in teaching and learning.
- Demonstrate professionalism.
- Integrate health, safety and nutrition practices.

Southwest Wisconsin
TECHNICAL COLLEGE

Start your application today!

The curriculum for the 2026-2027 academic year is tentative. Current students should view their degree audit in the Student Portal.

Semester 1: 15 Credits

Course Number	Course Name	Credits
10-307-148	ECE: Foundations of ECE	3
10-307-151	ECE: Infant & Toddler Dev	3
10-307-160	ECE: Field Experience 1	3
10-307-167	ECE: Health, Safety, & Nutrition	3
10-809-196	Intro to Sociology	3

Semester 2: 15 Credits

Course Number	Course Name	Credits
10-307-108	ECE: Early Language & Literacy	3
10-307-170	ECE: Field Experience 2	3
10-307-179	ECE: Child Development	3
10-307-188	ECE: Guiding Child Behavior	3
10-801-136	English Composition 1	3

Semester 3: 15 Credits

Course Number	Course Name	Credits
10-307-110	ECE: Social Studies, Art, & Music	3
10-307-112	ECE: STEM	3
10-307-190	ECE: Field Experience 3	3
10-809-198	Introduction to Psychology	3
10-804-123	Math with Business Applications OR	
10-804-189	Introductory Statistics	3

Semester 4: 15 Credits

Course Number	Course Name	Credits
10-307-187	ECE: Children w Diff Abilities	3
10-307-195	ECE: Family & Community Rel	3
10-307-210	ECE: Field Experience 4	3
10-801-198	Speech	3
10-809-128	Marriage & Family	3

Early Childhood Licensing

Basic Ages 0–2

Program Number 61-307-3
Pathway Certificate, 9 Credits

The Early Childhood Licensing Basic Ages 0-2 is designed for individuals wishing to satisfy the state of Wisconsin Licensing Code, DCF251, Licensing Rules for Group Child Care Centers. Potential occupations include caregiver, childcare provider, and daycare teacher, among others.

Program Basics

- Pathway Certificate
- Classes start in August (face to face day classes) and January (online)
- High school articulation and college transfer courses accepted.
- Complete First Aid/CPR with AED for Infants/Children
- Join The Registry of Wisconsin Early Care Professional Development
- Complete Fieldprint Fingerprinting Check
- Advanced standing for early childhood experience may be granted.

Program Outcomes

At the completion of this program, students are expected to be able to:

- Apply child development theory to practice.
- Cultivate relationships with children, family and the community.
- Assess child growth and development.
- Use best practices in teaching and learning.
- Demonstrate professionalism.
- Integrate health, safety, and nutrition practices.

Southwest Wisconsin
TECHNICAL COLLEGE
Start your application today!

The curriculum for the 2026-2027 academic year is tentative. Current students should view their degree audit in the Student Portal.

Semester 1: 9 Credits

Course Number	Course Name	Credits
10-307-148	ECE: Foundations of ECE	3
10-307-151	ECE: Infant & Toddler Dev	3
10-307-167	ECE: Health, Safety, & Nutrition	3

Electrical Power Distribution

Program Number 31-413-2

Technical Diploma, 31 Credits

Electric lineworkers install and repair cables and wires used in electrical power and distribution systems. They erect poles and light- or heavy-duty transmission towers. They locate line trouble, climb poles, use hot line tools, and operate and maintain substations. This program provides theoretical and hands-on training in all phases of power line construction and maintenance. It provides fundamentals of electrical theory, as well as application of electrical equipment with emphasis on safety.

Program Basics

- Technical diploma, nine months to complete.
- Day classes.
- High school articulation courses accepted.
- Classes start in August.
- Financial aid available.
- Students must achieve a "C" grade or better in each core (413) course of the program curriculum to be eligible to progress.

Program Outcomes

At the completion of this program, students are expected to be able to:

- Apply electrical theory.
- Construct overhead electrical distribution systems.
- Disassemble overhead electrical distribution systems.
- Construct underground electrical distribution systems.
- Construct overhead electrical transmission systems.
- Disassemble overhead electrical transmission systems.
- Maintain electrical systems.
- Disassemble underground electrical distribution systems.
- Demonstrate safe work practices.
- Some employers will require CPR and/or First Aid.

Southwest Wisconsin
TECHNICAL COLLEGE

Start your application today!

The curriculum for the 2026-2027 academic year is tentative. Current students should view their degree audit in the Student Portal.

Semester 1: 15 Credits

Course Number	Course Name	Credits
31-413-303	Electric Power Distribution Fund 1A	4
31-413-304	Electric Power Distribution Fund 1B	4
31-413-305	Electric Power Dist Fund 1C-App Lab	5
31-804-305	Applied Mathematics	2

Semester 2: 16 Credits

Course Number	Course Name	Credits
10-103-128	Beginning Microsoft Office	1
10-620-156	Fiber Optic Cabling Technician	1
31-413-306	Electric Power Dist Fund 2A	4
31-413-308	Electric Power Dist Fund 2C-App Lab	4
31-413-309	Electric Power Dist Fund 2B	3
31-413-310	EPD Career Exploratory Practicum	1
31-801-310	Workplace Communication	2

Electro-Mechanical Technology

Program Number 10-620-1

Associate Degree, 63 Credits

In the world of manufacturing, constant technology change brings with it more complex systems of assembly, control measurement, and material processing of manufactured products. The Electro-Mechanical Technology program provides training in electrical and electronic controls, robotics, utilization of computers and computer-based controls, as well as the knowledge of how these controls integrate with hydraulics, pneumatics and other mechanical drive elements to form automated systems.

Program Basics

- Associate degree, requiring a minimum of two years to complete.
- Classes are offered, daytime, face to face, and on campus.
- High school articulation courses accepted.
- Financial aid available.
- Classes start in January and August.

Program Outcomes

At the completion of this program, students are expected to be able to:

- Perform work safely.
- Troubleshoot electrical and mechanical systems and devices.
- Repair electrical and mechanical systems.
- Communicate technical information.
- Setup, install, and integrate electrical and mechanical systems and devices.

Southwest Wisconsin
TECHNICAL COLLEGE

Start your application today!

The curriculum for the 2026-2027 academic year is tentative. Current students should view their degree audit in the Student Portal.

Semester 1: 17 Credits

Course Number	Course Name	Credits
10-620-101	DC and AC Fundamentals	5
10-620-124	Welding for Maintenance	2
10-620-163	Intro to Mechatronics	1
10-620-165	Maintenance, Mechanics, and Materials	4
10-620-166	Residential Electrical Wiring	2
10-804-113	College Technical Math 1A	3

Semester 2: 17 Credits

Course Number	Course Name	Credits
10-449-160	Industrial Safety Practices & Career Dev	1
10-620-107	Hydraulics and Pneumatics	3
10-620-148	Intro to Motor Controls	2
10-620-149	Intro to Programmable Controls	2
10-620-162	Manual Machine Shop Fundamentals	3
10-806-143	College Physics 1	3
10-809-198	Introduction to Psychology OR	
10-809-199	Psychology of Human Relations	3

Semester 3: 15 Credits

Course Number	Course Name	Credits
10-620-126	Industrial Electrical Wiring	2
10-620-156	Fiber Optic Cabling Technician	1
10-620-157	Fundamentals of Embedded Systems	1
10-620-168	Manufacturing Technology Internship	1
10-620-169	Process Control Systems	4
10-801-136	English Composition I	3
10-809-196	Intro to Sociology	3

Semester 4: 14 Credits

Course Number	Course Name	Credits
10-150-126	Premises Cabling Technician	2
10-620-117	Robotics	3
10-620-159	Introduction to Frequency & Servo Drives	2
10-620-167	Smart Technology & Automation	4
10-801-197	Technical Reporting	3

Emergency Medical Technician

Program Number 30-531-3, 7 Credits

Advanced Emergency Medical Technician

Program Number 30-531-6
5 Additional Credits, Technical Diploma

The Emergency Medical Services (EMS) program at Southwest Wisconsin Technical College is designed to prepare students for careers in pre-hospital emergency care. This comprehensive program equips students with the necessary skills, knowledge, and hands-on experience to provide care in emergency situations. The program is led by seasoned EMS professionals who bring real-world insights and practical expertise to the classroom. They provide personalized guidance and mentorship to help students succeed. The program prepares students for entry-level positions such as Emergency Medical Responder (EMR), Emergency Medical Technician (EMT), and Advanced EMT. Graduates can work in a variety of settings including ambulance services, fire departments, hospitals, and private medical transport services.

Program Basics

- These courses are not eligible for financial aid unless the student is enrolled in an eligible program. Please see an advisor to determine financial aid eligibility.

Program Outcomes

At the completion of this program, students are expected to be able to:

- Prepare for incident response and EMS operations.
- Integrate pathophysiological principles and assessment findings to provide appropriate patient care.
- Demonstrate EMT skills associated with established standards and procedures for a variety of patient encounters.
- Communicate effectively with others.
- Demonstrate professional behavior.
- Meet state competencies for EMT certification

Southwest Wisconsin
TECHNICAL COLLEGE

Start your application today!

The curriculum for the 2026-2027 academic year is tentative. Current students should view their degree audit in the Student Portal.

EMT: 7 Credits

Course Number	Course Name	Credits
30-531-100	EMR/EMT 1	3
30-531-101	EMT 2	4

AEMT: 5 Additional Credits

Course Number	Course Name	Credits
30-531-103	Advanced EMT	4
30-531-104	Advanced EMT Clinical	1

Golf Course Management

Program Number 10-325-1

Associate Degree, 64 Credits

The Golf Course Management program prepares students for positions as managers and assistant managers of both public and private golf courses. Job duties may include managing personnel and public relations, overseeing food and beverage operations, administering financial plans, coordinating golf shop operations, managing the maintenance of facilities and equipment, directing turf and non-turf management practices, and complying with regulatory and legal issues.

Program Basics

- Associate degree, requiring a minimum of two years to complete
- Day classes
- Summer internships
- Financial aid available
- Classes start in August
- Transferable to four-year colleges and universities

Program Outcomes

At the completion of this program, students are expected to be able to:

- Create and implement a marketing plan.
- Plan and administer budgets and buying plans.
- Coordinate golf shop/tournament operations with cost analysis.
- Deliver quality golf instruction and facility promotions.
- Direct turf and equipment management practices with budget oversight.
- Oversee food and beverage operations with cost controls
- Use effective communication, math, and human relations skills.
- Comply with regulatory and legal issues.

Southwest Wisconsin
TECHNICAL COLLEGE

Start your application today!

The curriculum for the 2026-2027 academic year is tentative. Current students should view their degree audit in the Student Portal.

Semester 1: 15 Credits

Course Number	Course Name	Credits
10-109-102	Hospitality Professional Development Seminar	1
10-109-105	Hospitality Law	3
10-325-101	Golf Course Operations	3
10-325-118	Golf Course Irrigation Systems	3
10-325-124	Player Development 1	2
10-804-189	Introductory Statistics	3

Semester 2: 17 Credits

Course Number	Course Name	Credits
10-325-103	Pro Shop Management	3
10-325-107	Soils, Conservation, and Fertility	3
10-325-108	Tournament Promotions	2
10-325-114	Techniques for Teaching Golf	2
10-801-136	English Composition I	3
10-801-198	Speech	3
10-325-128	Spring Internship: Clubhouse OR	1
10-325-131	Spring Internship: Maintenance	

Semester 3: 1 Credit

Course Number	Course Name	Credits
10-325-129	Summer Internship: Clubhouse OR	1
10-325-132	Summer Internship: Maintenance	

Semester 4: 16 Credits

Course Number	Course Name	Credits
10-109-103	Event Management	3
10-109-108	Hospitality Supervision	3
10-325-104	Club Financial Management	3
10-325-127	Turf Grass Horticulture	3
10-809-199	Psychology of Human Relations	3
10-325-130	Fall Internship: Clubhouse OR	1
10-325-133	Fall Internship: Maintenance	

Semester 1: 15 Credits

Course Number	Course Name	Credits
10-006-122	Pest Management	1
10-109-104	Hospitality Marketing	3
10-325-109	Integrated Turf Management	3
10-325-110	Golf Course Design and Renovation	2
10-325-113	Golf Course Equipment Repair	3
10-809-196	Intro to Sociology	3

Graphic & Web Design

Program Number 10-201-2

Associate Degree, 63 Credits

Graphic and web designers create a wide variety of materials, including advertisements, displays, packaging, signs, logos, web sites, and web pages to meet the needs and preferences of their various clients for communication and promotion. Graphic and web designers work as in-house designers for a company, as staff designers for a graphic design firm, or as freelance designers. This growing profession needs creative minds that have excellent visualization, computer, and design skills.

Program Basics

- Associate degree, requiring two years or more to complete
- Combination of face to face and online classes
- High school articulation courses accepted
- Financial aid available to students who qualify
- Classes start in August and January
- Modified plan available
- Student laptops are included in this program

Program Outcomes

At the completion of this program, students are expected to be able to:

- Apply the principles of design to develop strategic marketing and communication products and services
- Demonstrate proficiency in the use of design software, tools and technology
- Implement creative solutions from concept through completion using a formal process
- Apply effective legal and ethical business practices and project management skills
- Communicate artwork rationale in formal and informal settings

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TECHNICAL COLLEGE

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The curriculum for the 2026-2027 academic year is tentative. Current students should view their degree audit in the Student Portal.

Semester 1: 16 Credits

Course Number	Course Name	Credits
10-201-101	Design Fundamentals	3
10-201-124	Portfolio Introduction	1
10-201-133	Photoshop	3
10-201-134	Illustrator	3
10-801-136	English Composition 1	3
10-804-123	Math with Business Applications OR	
10-804-133	Mathematics & Logic	3

Semester 2: 18 Credits

Course Number	Course Name	Credits
10-152-116	HTML & CSS	3
10-201-110	Pre-Press Management	3
10-201-135	InDesign	3
10-201-138	Typography	3
10-201-142	Digital Marketing for Graphic Designers	3
10-801-198	Speech	3

Semester 3: 15 Credits

Course Number	Course Name	Credits
10-201-139	Web Page Design 1	3
10-201-143	Beginning WordPress	2
10-201-144	Freelancing for Creatives	1
10-201-145	Motion Design	3
10-203-131	Introduction to Digital Photography	3
10-809-196	Intro to Sociology	3

Semester 4: 14 Credits

Course Number	Course Name	Credits
10-201-140	Web Page Design 2	3
10-201-141	Professional Portfolio Assessment	2
10-201-146	Digital Video Concepts	3
10-809-199	Psychology of Human Relations	3
10-201-128	Internship/Field Study OR	
10-201-129	Graphic and Web Design Projects	3

Health Information Technology

100% Online

Program Number 10-530-1

Associate Degree, 60 Credits

This two year associate degree in Health Information Technology (HIT) prepares students for a career working in patient health data management. Health Information Technicians are the individuals who compile the data for medical related agencies. They play a vital role in the organization because they are the ones that determine specifically how the data is compiled and reported to insurance companies, government agencies and others for reimbursements, research and quality monitoring.

The Health Information Technician program accreditor of Southwest Wisconsin Technical College is the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM). The College's accreditation for Associate degree in Health Information Technician has been reaffirmed through 2028-2029. All inquiries about the program's accreditation status should be directed by mail to CAHIIM, 200 East Randolph Street, Suite 5100, Chicago, IL, 60601; by phone at (312) 235-3255; or by email at info@cahiim.org.

Program Basics

- Associate degree
- All courses offered online allowing for 100% flexibility, with the exception of professional practice experiences (PPEs).
- Financial aid is available to those that qualify.
- August or January program start date
- Students must achieve a grade of C or better in each course of the program curriculum to be eligible to progress.
- Flexible, sequenced credential training starts with a Medical Coding Specialist Certificate (first year)
- Second year leads to Associate Degree in Health Information Technology Management.
- Credits transferrable for a Bachelor's degree in Health Information Management.

Program Outcomes

At the completion of this program, students are expected to be able to:

- Apply data governance principles to ensure the quality of health data.
- Apply coding and reimbursement systems.
- Model professional behaviors and ethics.
- Apply informatics and analytics in data use.
- Apply organizational management techniques.

Related Degree

- Medical Coding Specialist

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TECHNICAL COLLEGE

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The curriculum for the 2026-2027 academic year is tentative. Current students should view their degree audit in the Student Portal.

Semester 1: 7 Credits

Course Number	Course Name	Credits
10-501-101	Medical Terminology	3
10-806-177	General Anatomy & Physiology	4

Semester 2: 14 Credits

Course Number	Course Name	Credits
10-501-107	Digital Literacy for Healthcare	2
10-530-120	Intro to Medical Reimbursement	2
10-530-180	Intro to Health Information	2
10-530-182	Human Diseases for Health Professions	3
10-530-197	ICD Diagnosis Coding	3
10-530-199	ICD Procedure Coding	2

Semester 3: 13 Credits

Course Number	Course Name	Credits
10-530-157	Revenue Cycle Management	2
10-530-158	Healthcare Law	3
10-530-165	Intermediate Coding	3
10-530-184	CPT Coding	3
10-530-190	Data Management in HIM	2

Semester 4: 13 Credits

Course Number	Course Name	Credits
10-103-128	Beginning Microsoft Office	1
10-530-121	Intro to Healthcare Data Analytics	3
10-530-164	Intro to Health Informatics	3
10-801-136	English Composition I	3
10-801-198	Speech	3

Semester 5: 13 Credits

Course Number	Course Name	Credits
10-530-166	HIT Capstone	1
10-530-179	Management & Performance Improvement	3
10-530-196	Professional Practice	3
10-809-196	Intro to Sociology	3
10-809-198	Introduction to Psychology	3

Human Services Associate

Program Number 10-520-3

Associate Degree, 62 Credits

The Human Services Associate program trains students to provide information, support, care, and advocacy in a human service setting. Students acquire the skills needed to work with individuals, groups, and communities. They learn to work with people of diverse racial, ethnic, and cultural backgrounds. General education courses included in the program teach students to better understand social problems. During the second year of the program, students receive fieldwork placement in a human service setting.

Program Basics

- Associate degree, requiring a minimum of two years to complete.
- Students must achieve a "C" grade or better in all courses within the curriculum to be eligible to progress.

Program Outcomes

At the completion of this program, students are expected to be able to:

- Model a commitment to cultural competence
- Uphold the Ethical Standards and Values for Human Service Professionals
- Demonstrate professionalism
- Utilize community and agency resources
- Apply human services interventions and best practices
- Cultivate professional relationships

Southwest Wisconsin
TECHNICAL COLLEGE

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The curriculum for the 2026-2027 academic year is tentative. Current students should view their degree audit in the Student Portal.

Semester 1: 15 Credits

Course Number	Course Name	Credits
10-520-101	Introduction to Human Services	3
10-520-104	Community Resources and Services	3
10-801-136	English Composition 1	3
10-809-128	Marriage & Family	3
10-809-188	Developmental Psychology	3

Semester 2: 15 Credits

Course Number	Course Name	Credits
10-520-102	Ethics for the Profession	3
10-520-103	Issues In ATODA	3
10-520-105	Interviewing and Counseling Techniques	3
10-801-198	Speech	3
10-809-198	Introduction to Psychology	3

Semester 3: 19 Credits

Course Number	Course Name	Credits
10-520-106	Issues of Gerontology	3
10-520-108	Methods of Social Casework	3
10-520-109	Professional Documentation in Human Services	3
10-520-121	Field Study 1	4
10-809-159	Abnormal Psychology	3
10-809-196	Intro to Sociology	3

Semester 4: 13 Credits

Course Number	Course Name	Credits
10-520-107	Disability Studies	3
10-520-112	Children, Youth, & Family	3
10-520-122	Field Study 2	4
10-804-123	Math with Business Applications OR	
10-804-189	Introductory Statistics	3

Individualized Technical Studies

Associate Degree, 60-70 Credits

The Individualized Technical Students program allows students to combine courses from two or more major areas of study into an Associate of Applied Science Degree that meets specific career preparation goals not available in other Southwest Tech programs. Students begin by completing a program plan that outlines career objectives, and the courses needed to meet those objectives.

Program Basics

- Associate degree, requiring two years or more to complete.
- High school articulation courses accepted.
- Financial aid available to those who qualify.
- Classes start in August and Januar

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TECHNICAL COLLEGE

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The curriculum for the 2026-2027 academic year is tentative. Current students should view their degree audit in the Student Portal.

General Studies Core: 21-30 Credits

Course Name	Credits
Communications	6
Social Science	3
Behavioral Science	3
Mathematics / Science	3
Additional General Education (from any category above)	6-15

Individualized Technical Studies Core

Course Name	Credits
Program Emphasis	Minimum of 20

Industrial Mechanic

Program Number 31-620-1

One-Year Technical Diploma, 34 Credits

The Industrial Mechanic program teaches technical skills in mechanical drive systems, electrical systems, hydraulics and pneumatics, laser alignment, basic welding and machining, and many other in-demand skill sets that employers are looking for. Graduates have the option of seeking employment or enrolling in the two year Electromechanical Technology program.

Program Basics

- Technical Diploma, requiring a minimum of two semesters to complete.
- Classes are offered, daytime, face to face, and on campus.
- High school articulation courses accepted.
- Financial aid available.
- Classes start in January and August.

Program Outcomes

At the completion of this program, students are expected to be able to:

- Set up and operate equipment or systems to ensure reliable performance.
- Install, remove, and relocate equipment and systems as directed.
- Troubleshoot and repair mechanical equipment.
- Research preventative maintenance techniques.
- Perform work safely
- Select and order required parts and materials using parts list, catalogs, and standard books.

Southwest Wisconsin
TECHNICAL COLLEGE

Start your application today!

The curriculum for the 2026-2027 academic year is tentative. Current students should view their degree audit in the Student Portal.

Semester 1: 17 Credits

Course Number	Course Name	Credits
10-620-101	DC and AC Fundamentals	5
10-620-124	Welding for Maintenance	2
10-620-163	Intro to Mechatronics	1
10-620-165	Maintenance, Mechanics, and Materials	4
10-620-166	Residential Electrical Wiring	2
10-804-113	College Technical Math 1A	3

Semester 2: 17 Credits

Course Number	Course Name	Credits
10-449-160	Industrial Safety Practices & Career Development	1
10-620-107	Hydraulics and Pneumatics	3
10-620-148	Intro to Motor Controls	2
10-620-149	Intro to Programmable Controls	2
10-620-162	Manual Machine Shop Fundamentals	3
10-806-143	College Physics 1	3
10-809-198	Introduction to Psychology OR	
10-809-199	Psychology of Human Relations	3

IT-Cybersecurity Specialist

Program Number 10-151-2

Associate Degree, 65 Credits

The IT-Cybersecurity and Network Administration program provides students with the skills required to maintain a secure IT system along with the expertise to design, install, and manage the integrity of a computer network infrastructure. Equipment and technology used in this program includes firewalls, intrusion detection and prevention systems, anomaly identification systems, physical server computing, cloud computing, and associated physical security technologies. Students will work with business class systems such as Microsoft, Linux, and Mac OS. Extensive hands-on, real-world, experiences with real equipment are provided to gain the immense knowledge required to accurately configure and secure network systems.

Program Basics

- Associate degree, requiring a minimum of two years to complete.
- High school articulation courses accepted.
- Financial aid available.
- Classes start in August and January.
- Modified plan available.

Program Outcomes

At the completion of this program, students are expected to be able to:

- Identify security strategies.
- Implement secure infrastructures.
- Conduct security testing.
- Analyze security data.
- Mitigate risk.
- Develop security documentation.

Southwest Wisconsin
TECHNICAL COLLEGE

Start your application today!

The curriculum for the 2026-2027 academic year is tentative. Current students should view their degree audit in the Student Portal.

Semester 1: 16 Credits

Course Number	Course Name	Credits
10-103-106	Beginning Microsoft Excel	1
10-103-118	Intermediate Microsoft Excel	1
10-150-129	Introduction to Networks	2
10-150-134	Windows Support	1
10-151-101	Introduction to Security	1
10-151-104	Linux Administration and Security	3
10-620-156	Fiber Optic Cabling Technician	1
10-801-136	English Composition I	3
10-804-133	Mathematics and Logic	3

Semester 2: 16 Credits

Course Number	Course Name	Credits
10-107-192	IT Career Development	2
10-150-126	Premises Cabling Technician	2
10-150-135	Windows Server Administration (2 cr)	2
10-151-102	Cybersecurity Essentials	2
10-151-103	Cisco Networking and Security	3
10-151-113	Operating System Security	2
10-801-198	Speech	3

Semester 3: 17 Credits

Course Number	Course Name	Credits
10-150-136	Cloud Computing	2
10-150-154	Firewall/VPN Technologies	2
10-150-155	Virtualization Technologies	3
10-151-105	Wireless Networking and Security	2
10-151-106	Scripting for Security	2
10-151-107	Cybersecurity Operations	3
10-809-195	Economics OR	
20-809-287	Principles of Macroeconomics	3

Semester 4: 16 Credits

Course Number	Course Name	Credits
10-151-108	Database Security Administration	3
10-151-109	Advanced Security Capstone	3
10-151-110	Network Defense & Forensics	3
10-151-111	Offensive Security Operations	1
10-151-112	Foundational Threat Hunting	3
10-809-199	Psychology of Human Relations	3

IT-Network Systems Technician

Program Number 31-150-9

Technical Diploma, 32 Credits

The IT-Network Systems Technician program provides students with the skills required to support the integrity of a computer network infrastructure. Students will be able to manage, configure and troubleshoot common system infrastructure issues, including network switching, routing, IP services, fiber optics, premises cabling and basic network device security. Students will work with business class systems such as Cisco, Microsoft and Linux. Extensive hands-on, real-world, experiences with real equipment are provided to gain the immense knowledge required to accurately configure and secure network systems.

Program Basics

- One-year technical diploma.
- In person and online classes.
- High school articulation courses accepted.
- Financial aid available.
- Classes start in August.

Program Outcomes

At the completion of this program, students are expected to be able to:

- Provide entry level end user support
- Manage operating systems and application software
- Support information technology hardware
- Provide basic network support for existing network installations

Southwest Wisconsin
TECHNICAL COLLEGE

Start your application today!

The curriculum for the 2026-2027 academic year is tentative. Current students should view their degree audit in the Student Portal.

Semester 1: 16 Credits

Course Number	Course Name	Credits
10-103-106	Beginning Microsoft Excel	1
10-103-118	Intermediate Microsoft Excel	1
10-150-129	Introduction to Networks	2
10-150-134	Windows Support	1
10-151-101	Introduction to Security	1
10-151-104	Linux Administration and Security	3
10-620-156	Fiber Optic Cabling Technician	1
10-801-136	English Composition I	3
10-804-133	Mathematics and Logic	3

Semester 2: 16 Credits

Course Number	Course Name	Credits
10-107-192	IT Career Development	2
10-150-126	Premises Cabling Technician	2
10-150-135	Windows Server Administration (2 cr)	2
10-151-102	Cybersecurity Essentials	2
10-151-103	Cisco Networking and Security	3
10-151-113	Operating System Security	2
10-801-198	Speech	3

IT-Software Developer

Program Number 10-152-1

Associate Degree, 62 Credits

Build the skills to design, develop, and deploy the software powering today's digital world. The IT Software Developer Associate Degree prepares you to turn ideas into applications—whether you are building web platforms, business tools, or mobile apps. Through hands-on learning in programming languages, databases, system analysis, and user experience design, you will gain the technical expertise employers need and the problem-solving mindset to grow with the industry. Artificial intelligence (AI) principles are integrated into course outcomes, giving you experience with tools and techniques shaping the future of software. From automating tasks to enhancing user interactions, you'll learn how AI is transforming the development process—and how to stay ahead of the curve. Graduates are ready to launch careers in software engineering, application development, QA testing, and more—supporting innovation in industries like healthcare, finance, manufacturing, and tech.

Program Basics

- Associate degree, requiring a minimum of two years to complete.
- High school articulation courses accepted.
- Financial aid available.
- Classes start in August and January.

Program Outcomes

At the completion of this program, students are expected to be able to:

- Design software systems.
- Develop software applications.
- Develop technical documentation.
- Implement a team-based software development methodology.
- Integrate data technologies.
- Navigate in a software development environment.

Southwest Wisconsin
TECHNICAL COLLEGE

Start your application today!

The curriculum for the 2026-2027 academic year is tentative. Current students should view their degree audit in the Student Portal.

Semester 1: 15 Credits

Course Number	Course Name	Credits
10-151-101	Introduction to Security	1
10-152-117	Python Programming Foundations	2
10-152-118	Web Development Foundations	3
10-152-119	Algorithmic Problem Solving	3
10-801-136	English Composition I	3
10-804-189	Introductory Statistics	3

Semester 2: 15 Credits

Course Number	Course Name	Credits
10-152-120	Database Query and Design	3
10-152-121	Advanced Python Systems	3
10-152-122	C# Application Development	3
10-152-123	Modern Data Modeling for Systems	3
10-801-198	Speech	3

Semester 3: 16 Credits

Course Number	Course Name	Credits
10-152-124	Containerized App Deployment	2
10-152-126	Cloud Platforms for Developers	3
10-152-127	Systems Analysis and Design	3
10-152-128	C++ Systems Performance Foundations	2
10-152-131	Machine Learning Foundations	3
10-809-195	Economics OR	3
20-809-287	Principles of Macroeconomics	

Semester 4: 16 Credits

Course Number	Course Name	Credits
10-152-129	Agile Delivery and DevOps	3
10-152-130	Software Career Experience	2
10-152-132	Mobile Application Development	2
10-152-133	Deep Learning Frameworks and Applications	3
10-152-134	Technical Intelligence Studio	3
10-809-199	Psychology of Human Relations	3

Logistics

100% Online

Program Number 61-182-1

Pathway Certificate, 14 Credits

Logistics Pathway is designed to equip the student with the skills necessary to be successful in improving efficiency and profitability within the supply chain. Potential occupations include: Freight Broker, Logistics Coordinator, Load Planner, International Coordinator, Cargo Agent, Freight Forwarder, Receiving Manager, Traffic Manager, Shipping Coordinator, Transportation Supervisor, Warehouse Supervisor, Fleet Manager, Loader Operator, Shipping and Receiving Operator or Shipper, among others.

Program Basics

These courses are not eligible for financial aid unless the student is enrolled in an eligible program. Please see an advisor to determine financial aid eligibility.

Related Degrees and Certificates

- Production Planner
- Purchasing Agent/Buyer
- Supply Chain Assistant Technical Diploma
- Supply Chain Management Associate Degree

Southwest Wisconsin
TECHNICAL COLLEGE

Start your application today!

The curriculum for the 2026-2027 academic year is tentative. Current students should view their degree audit in the Student Portal.

Semester 1: 5 Credits

Course Number	Course Name	Credits
10-103-106	Beginning Microsoft Excel	1
10-103-118	Intermediate Microsoft Excel	1
10-623-110	Lean Concepts	3

Semester 2: 9 Credits

Course Number	Course Name	Credits
10-182-107	Logistics	3
10-182-108	Global Supply Chain Management	3
10-182-137	Technology in the Supply Chain	3

Medical Coding Specialist

100% Online

Program Number 31-530-2

1-Year Technical Diploma, 34 Credits

The Medical Coding Specialist program prepares students 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. This program teaches students to review medical documentation provided by physicians and other health care providers, and translate it into universally recognized numeric codes.

Program Basics

- Technical Diploma.
- May take the program in modified plan.
- All courses offered online.
- Medical Coding students must achieve a grade of C or better in each course of the program curriculum to be eligible to progress.
- Financial aid available.

Program Outcomes

At the completion of this program, students are expected to be able to:

- Collect health data
- Model professional behaviors and ethics
- Use electronic applications to support coding and data collection
- Apply coding and reimbursement systems

Southwest Wisconsin
TECHNICAL COLLEGE

Start your application today!

The curriculum for the 2026-2027 academic year is tentative. Current students should view their degree audit in the Student Portal.

Semester 1: 7 Credits

Course Number	Course Name	Credits
10-501-101	Medical Terminology	3
10-806-177	General Anatomy & Physiology	4

Semester 2: 14 Credits

Course Number	Course Name	Credits
10-501-107	Digital Literacy for Healthcare	2
10-530-120	Intro to Medical Reimbursement	2
10-530-180	Intro to Health Information	2
10-530-182	Human Diseases for Hlth Profes	3
10-530-197	ICD Diagnosis Coding	3
10-530-199	ICD Procedure Coding	2

Semester 3: 13 Credits

Course Number	Course Name	Credits
10-530-157	Revenue Cycle Management	2
10-530-158	Healthcare Law	3
10-530-165	Intermediate Coding	3
10-530-184	CPT Coding	3
10-530-190	Data Management in HIM	2

Medical Laboratory Technician

Program Number 10-513-1

Associate Degree, 64 Credits

Students in the Medical Laboratory Technician program learn to perform routine clinical laboratory tests such as hematology, clinical chemistry, immunohematology, microbiology, serology/immunology, coagulation, molecular and other emerging diagnostics. They develop communication skills, as this career requires frequent interactions with members of the healthcare team, external relations, customer service, and patient education. A combination of fundamental laboratory techniques and clinical experience prepares graduates for work in laboratories serving the health care sector. Graduates are prepared to complete the ASCP Board of Certification to become certified Medical Laboratory Technicians.

Program Basics

- Associate degree, requiring a minimum of two years to complete.
- Financial aid is available to those that qualify.
- August program start date; however, some classes will be available in January.
- Qualified students may take some courses immediately upon program acceptance.
- Students must achieve a grade of a C or better in each course of the program curriculum to be eligible to progress.
- Current Healthcare Provider CPR certification must be maintained throughout the clinical experience portion of the MLT Program.
- Sign off as qualified in Essential Functional Abilities after acceptance to the program and prior to clinical placement.

Program Outcomes

At the completion of this program, students are expected to be able to:

- Practice laboratory safety and regulatory compliance
- Collect and process biological specimens
- Monitor and evaluate quality control in the laboratory
- Apply modern clinical methodologies including problem solving and troubleshooting according to predetermined criteria
- Correlate laboratory results to diagnosis of clinical conditions and/or diseases
- Perform information processing in the clinical laboratory
- Model professional behaviors, communication, ethics, and appearance

Southwest Wisconsin
TECHNICAL COLLEGE

Start your application today!

The curriculum for the 2026-2027 academic year is tentative. Current students should view their degree audit in the Student Portal.

Semester 1: 17 Credits

Course Number	Course Name	Credits
10-513-110	Basic Lab Skills	1
10-513-111	Phlebotomy	2
10-513-113	QA Lab Math	1
10-513-115	Basic Immunology Concepts	2
10-801-136	English Composition 1	3
10-806-177	General Anatomy & Physiology	4
10-806-186	Intro to Biochemistry	4

Semester 2: 17 Credits

Course Number	Course Name	Credits
10-513-109	Blood Bank	4
10-513-114	Urinalysis	2
10-513-120	Basic Hematology	3
10-513-121	Coagulation	1
10-801-198	Speech	3
10-806-197	Microbiology	4

Semester 3: 6 Credits

Course Number	Course Name	Credits
10-809-172	Introduction to Diversity Studies OR	3
10-809-196	Intro to Sociology	
10-809-188	Developmental Psychology OR	
10-809-198	Introduction to Psychology	3

Semester 4: 11 Credits

Course Number	Course Name	Credits
10-513-116	Clinical Chemistry	4
10-513-130	Advanced Hematology	2
10-513-133	Clinical Microbiology	4
10-513-180	Body Fluids Analysis	1

Semester 5: 13 Credits

Course Number	Course Name	Credits
10-513-140	Advanced Microbiology	2
10-513-141	Pre-Clinical Experience	2
10-513-151	Clinical Experience 1	3
10-513-152	Clinical Experience 2	4
10-513-170	Introduction to Molecular Diagnostics	2

Midwife (Direct Entry)

Program Number 10-510-6

Associate Degree, 68 Credits

The Direct Entry Midwifery program is a two-year associate degree program designed to equip aspiring midwives with the skills and knowledge necessary for certification and licensure in Wisconsin. This program focuses on providing comprehensive, hands-on holistic care throughout the childbearing years, with a particular emphasis on low-risk pregnancy assessment and appropriate referral practices. Students will develop essential competencies in various aspects of pregnancy assessment, including nutritional evaluation, overall health monitoring, risk assessment, fetal growth and development monitoring, lactation techniques, initial newborn care, and evaluating family support and child transition while identifying available community resources.

Program Basics

- Associate degree, requiring a minimum of two years to complete
- Some online classes available
- Financial aid available to students who qualify
- May take some courses immediately upon program acceptance
- Students must achieve a C or better in each course of the program curriculum to be eligible to progress
- CPM to ASM Pathway available for the already Certified Professional Midwife (CPM)
- Access to classroom learning virtually. All students enrolled in lab classes will be required to be present on campus for two weeks per semester.
- Starts in January
- Clinical work needs to be accomplished within 5 years of original program registration

Program Outcomes

At the completion of this program, students are expected to be able to:

- Acquire a foundation of theoretical knowledge, clinical assessment, critical thinking skills, and shared decision making
- Create the plan of care for the woman in the childbearing year
- Demonstrate holistic, competent care for women and families during the childbearing year

Southwest Wisconsin
TECHNICAL COLLEGE

Start your application today!

The curriculum for the 2026-2027 academic year is tentative. Current students should view their degree audit in the Student Portal.

Semester 1: 15 Credits

Course Number	Course Name	Credits
10-501-153	Body Structure and Function	3
10-510-155	Introduction to Midwifery Practice	2
10-510-156	Midwife Science Lab	1
10-510-157	Physical Exam for the Midwife	2
10-510-158	Introduction to Midwife Clinic	1
10-801-136	English Composition I	3
10-809-198	Introduction to Psychology * OR *	
10-809-199	Psychology of Human Relations	3

Semester 2: 7 Credits

Course Number	Course Name	Credits
10-510-159	Midwife Clinic 1	1
10-801-198	Speech	3
10-809-196	Intro to Sociology * OR *	
10-809-172	Introduction to Diversity Studies	3

Semester 3: 6 Credits

Course Number	Course Name	Credits
10-510-140	Nutrition	3
10-510-153	Applied Pharmacology	2
10-510-160	Antepartum Theory	4
10-510-161	Antepartum Lab	1
10-510-162	Midwife Clinic 2	2
10-809-128	Marriage & Family	3

Semester 4: 13 Credits

Course Number	Course Name	Credits
10-510-148	Midwife Clinic Lab I	1
10-510-150	OB/Medication Management	1
10-510-163	Midwife Clinic 3	1
10-510-164	Intrapartum	3
10-510-165	Postpartum	1
10-510-166	Neonate	1
10-510-167	Midwife Clinic 4	2
10-804-189	Introductory Statistics	3

Semester 5: 4 Credits

Course Number	Course Name	Credits
10-510-168	Midwife Clinic 5	2
10-510-169	Midwife Clinic 6	2

Semester 6: 14 Credits

Course Number	Course Name	Credits
10-510-146	Well Woman Gynecology	3
10-510-149	Professional Issues in Midwifery	2
10-510-152	Midwife Clinic Lab II	2
10-510-154	Midwife Research	1
10-510-170	Midwife Clinic 7	3
10-809-166	Introduction to Ethics: Theory and App	3

Nail Technician

Program Number 30-502-4
Technical Diploma, 10 Credits

The Nail Technician Technical Diploma offers students a degree in nail services which gives you the knowledge and tools to start as a Licensed Manicurist. Students will learn nail service including manicuring, pedicuring, nail enhancements, gel polishes, nail art, and spa services.

Program Basics

- These courses are not eligible for financial aid unless the student is enrolled in an eligible program. Please see an advisor to determine financial aid eligibility.

To graduate from this program and be eligible to take the state licensing examination, each student must:

- Successfully meet all Southwest Tech program requirements.
- Receive a passing grade of C in all program courses.
- Complete a minimum of 300 theory and practical hours of training.
- Completing these courses prepares individuals to take the State of Wisconsin examination to become licensed manicurists. Nail Technician students will take a state licensing exam to become a Licensed Nail Technician, while state licensing exam for students enrolled in the Cosmetology Program will be certified in Cosmetology Services as well as Nail Technician.
- Note: In order to qualify for licensure for your manicurist state board exam, you must be 18 years of age, have completed a minimum 300 hours of instruction and completed the requirements of Southwest Tech Nail Technology Program.

Program Outcomes

At the completion of this program, students are expected to be able to:

- Apply safety and sanitation procedures.
- Adhere to the current Wisconsin administrative codes and statutes for cosmetology.
- Demonstrate interpersonal skills for success.
- Perform nail services.
- Develop strategies to market products and services.

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The curriculum for the 2026-2027 academic year is tentative. Current students should view their degree audit in the Student Portal.

Semester 1: 10 Credits

Course Number	Course Name	Credits
31-502-302	Salon/Spa Science	2
31-502-305	Nail Technology	3
31-502-307	Salon/Spa Management	2
31-502-322	Nail Services	3

Nursing Assistant

Program Number 30-543-1
Certificate, 2 Credits

Nursing Assistants play an important role in basic patient/resident care activities in hospitals, nursing homes, and other health care settings, including home health care. The Nursing Assistant course meets state and federal requirements for training and testing, and is open to individuals 16 years of age or older. The course also serves as one pre-requisite for individuals applying for the Nursing – Associate Degree program. The Southwest Tech Nursing Assistant Program is approved by the Wisconsin Department of Health and Family Services, preparing the student to be successful in meeting state and federally regulated competencies as a nursing assistant. The graduating student is eligible to take the National Nurse Aid Assessment Program Exam, which includes both a written and skills exam.

Program Basics

- Certificate as a Basic Nursing Assistant after 81 hours of training.
- Nursing home clinical component only.
- Classes offered on part-time basis fall and spring.
- Classes offered full-time on campus in summer.
- Qualified in functional abilities for Nursing Assistant program.

Program Outcomes

At the completion of this program, students are expected to be able to:

- Communicate and interact effectively with clients, family and co-workers
- Maintain and protect client rights
- Report information and record observations
- Demonstrate the ethical and legal responsibilities of the NA/HHA
- Provide safe care to a diverse population, meeting personal, physical and psychosocial client needs
- Assist with client rehabilitation and restorative care, promoting independence
- Assist clients with long-term, disabling conditions including dementia, always focusing on the strengths of the client
- Work cooperatively in a team environment
- Eligible to take the WI NA Competency evaluation

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The curriculum for the 2026-2027 academic year is tentative. Current students should view their degree audit in the Student Portal.

Semester 1: 2 Credits

Course Number	Course Name	Credits
30-543-300	Nursing Assistant	2

Nursing-Associate Degree

Program Number 10-543-1

Associate Degree, 65 Credits

This program is accredited by the Accreditation Commission for Education in Nursing (ACEN).

The Associate Degree Nursing program prepares students with the knowledge and skills needed to work successfully as registered nurses (RN) and function with critical thinking, clinical judgment, and technical competence when providing care for patients. The program offers classroom discussion, independent learning projects, labs, and hands-on clinical experiences in area healthcare agencies. Our well-rounded curriculum features state-of-the-art technology, including adult, pediatric, and obstetric simulators. Students are eligible to take the licensing exam (NCLEX-RN) for Registered Nurses after completion of all 65 credits in the program.

Program Basics

- Face-to-Face and Online courses
- Financial aid available to those that qualify
- Students must achieve a grade of a C or better in each course of the program curriculum to be eligible to progress.
- Current Healthcare Provider CPR certification must be maintained throughout the program. (Courses must include CPR, and a hands-on exam must be taken.)
- Students who complete this program can pursue transfer to bachelor degree programs.

Program Outcomes

At the completion of this program, students are expected to be able to:

- Integrate professional nursing identity reflecting integrity, responsibility, and nursing
- Communicate comprehensive information using multiple sources in nursing practice
- Integrate theoretical knowledge to support decision making
- Integrate the nursing process into patient care across diverse populations
- Function as a healthcare team member to provide safe and effective care

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The curriculum for the 2026-2027 academic year is tentative. Current students should view their degree audit in the Student Portal.

Semester 1: 19 Credits

Course Number	Course Name	Credits
10-543-101	Nursing Fundamentals	2
10-543-102	Nursing Skills	3
10-543-103	Nursing Pharmacology	2
10-543-104	Nursing Intro Clinical Practice	2
10-801-136	English Composition 1	3
10-809-188	Developmental Psychology	3
10-806-177	General Anatomy & Physiology OR	
20-806-207	Anatomy and Physiology I	4

Semester 2: 17 Credits

Course Number	Course Name	Credits
10-543-105	Nursing Health Alterations	3
10-543-106	Nursing Health Promotion	3
10-543-107	Nursing Clinical Care Across the Lifespan	2
10-543-108	Intro to Clinical Care Management	2
10-801-198	Speech	3
10-806-179	Adv Anatomy & Physiology OR	
20-806-208	Anatomy and Physiology II	4

Semester 3: 16 Credits

Course Number	Course Name	Credits
10-543-109	Nursing Complex Health Alterations I	3
10-543-110	Mental Health & Community Concepts	2
10-543-111	Nursing Intermediate Clinical Practice	3
10-543-112	Nursing Advanced Skills	1
10-806-197	Microbiology	4
10-809-198	Introduction to Psychology	3

Semester 4: 13 Credits

Course Number	Course Name	Credits
10-543-113	Nursing Complex Health Alterations II	3
10-543-114	Nursing Management & Professional Concepts	2
10-543-115	Nursing Advanced Clinical Practice	3
10-543-116	Nursing Clinical Transition	2
10-809-196	Intro to Sociology OR	
10-809-197	Contemporary American Society	3

Payroll Assistant

Program Number 61-101-3
Pathway Certificate, 11 Credits

Learn the basics of managing payroll. As a student in the Payroll Assistant Certificate, you will learn to review time sheets, work charts, and calculate wages, exemptions, transfers, and deductions.

Program Basics

- These courses are not eligible for financial aid unless the student is enrolled in an eligible program. Please see an advisor to determine financial aid eligibility.

Related Degrees

- Accounting
- Accounting Assistant

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TECHNICAL COLLEGE
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The curriculum for the 2026-2027 academic year is tentative. Current students should view their degree audit in the Student Portal.

Semester 1: 8 Credits

Course Number	Course Name	Credits
10-101-111	Accounting 1	4
10-103-128	Beginning Microsoft Office	1
10-801-198	Speech	3

Semester 2: 3 Credits

Course Number	Course Name	Credits
10-101-123	Payroll Applications	2
10-101-127	QuickBooks	1

Phlebotomist/Specimen Processor

Program Number 30-513-2
Technical Diploma, 3 Credits

The phlebotomy technician or specimen processor is a vital role in nearly every type of health care facility. Phlebotomists are trained to draw blood from a patient for clinical or medical testing, transfusions, donations or research.

Program Basics

- Technical diploma, requiring a minimum of one year to complete.
- Current August program start date.
- This program consists of two courses. Both courses are face-to-face courses and must be taken in the same semester.
- Complete competency checks in venipuncture and basic lab skills must be completed successfully.
- Students must achieve a grade of a C or better in each of the two courses in the program curriculum to obtain the technical diploma.
- Expect to spend at least six hours per week beyond scheduled class time to study course material and complete assignments.
- Students are eligible for ASCP Certification Route 3 after 1 year of full-time experience as a Phlebotomy Technician.

Program Outcomes

At the completion of this program, students are expected to be able to:

- Draw blood from a patient using venipuncture or capillary puncture techniques for clinical or medical testing, transfusions, or research.
- Collect, process, and store blood and other biological specimens for analysis.
- Operate and perform routine preventative maintenance on basic laboratory equipment including centrifuges used to process specimens.
- Perform analytical testing using CLIA waived methods and instrumentation.
- Recognize the pre-analytical factors that affect clinical laboratory testing
- Understand that proper specimen collection and processing is key to accurate and timely clinical laboratory testing.
- Demonstrate effective and professional interpersonal communication skills with patients, colleagues, other health professionals, and the public.
- Monitor and evaluate quality control for CLIA waived testing.
- Adhere to safety and regulatory compliance.

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The curriculum for the 2026-2027 academic year is tentative. Current students should view their degree audit in the Student Portal.

Semester 1: 3 Credits

Course Number	Course Name	Credits
10-513-110	Basic Lab Skills	1
10-513-111	Phlebotomy	2

Related Degrees

Courses completed in the Phlebotomy / Specimen Processor technical diploma are eligible to transfer into the Medical Laboratory Technician associate degree.

Physical Therapist Assistant

Program Number 10-524-1

Associate Degree, 64 Credits

Physical therapist assistants work under the supervision of a physical therapist. Their duties include assisting the with treatment programs according to the plan of care; training patients in exercises and activities of daily living; conducting treatments; using special equipment; administering modalities and other treatment procedures; and reporting to the physical therapist about the patient's responses.

Program Basics

- Associate degree
- Program courses are face-to-face during the daytime. General education courses are face-to-face, hybrid, and/or online during the daytime and evening.
- Financial aid is available to those that qualify.
- Qualified students may take some courses immediately upon program acceptance.
- Students must achieve a grade of a C or better in each course of the program curriculum to be eligible to progress.
- Current Healthcare Provider CPR certification must be maintained throughout the program. (Courses must include CPR, and a hands-on exam must be taken.)
- Students must read and sign the Technical Functions Form prior to starting this program.

Program Outcomes

At the completion of this program, students are expected to be able to:

- Demonstrate clear and collaborative communication with patients, families, and health care team.
- Exhibit behaviors and conduct that reflect respect and sensitivity according to physical therapy practice standards.
- Function under the supervision of a physical therapist in a safe, legal, ethical manner to ensure the safety of patients, self, and others throughout the clinical interaction.
- Produce documentation to support the delivery of physical therapy services.
- Demonstrate critical thinking skills to implement and modify treatment within a plan of care under the direction and supervision of a physical therapist.
- Perform data collection essential for carrying out the plan of care under the direction and supervision of the physical therapist.
- Perform technically competent, evidence-based physical therapy interventions under the direction and supervision of the physical therapist.
- Educate patients, families and other health care providers.
- Integrate components of operational and fiscal practices of physical therapy service in a variety of settings.
- Implement a self-directed plan for career development, credentialing and lifelong learning.

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The Physical Therapist Assistant Program at Southwest Wisconsin Technical College is accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE), 3030 Potomac Ave., Suite 100, Alexandria, Virginia 22305-3085; telephone: 703.706.3245; email: accreditation@apta.org; website: www.capteonline.org. If needing to contact the program/institution directly, please call 608.822.2653 or email splace@swtc.edu.

The curriculum for the 2026-2027 academic year is tentative. Current students should view their degree audit in the Student Portal.

Prerequisite to Program Core Courses: 4 Credits

Course Number	Course Name	Credits
10-806-177	Gen Anatomy & Physiology	4

Semester 1: 16 Credits

Course Number	Course Name	Credits
10-524-139	PTA Patient Interventions	4
10-524-140	PTA Professional Issues 1	2
10-524-156	PTA Applied Kinesiology 1	4
10-801-136	English Composition 1	3
10-801-198	Speech	3

Semester 2: 13 Credits

Course Number	Course Name	Credits
10-524-142	PTA Therapeutic Exercise	3
10-524-143	PTA Biophysical Agents	4
10-524-157	PTA Applied Kinesiology 2	3
10-809-188	Developmental Psychology	3

Semester 3: 16 Credits

Course Number	Course Name	Credits
10-524-144	PTA Princ of Neuro Rehab	4
10-524-145	PTA Princ of Musculo Rehab	4
10-524-146	PTA Cardio & Integ Mgmt	3
10-524-147	PTA Clinical Practice 1	2
10-809-198	Introduction to Psychology OR	3
10-809-199	Psychology of Human Relations	

Semester 4: 15 Credits

Course Number	Course Name	Credits
10-524-148	PTA Clinical Practice 2	3
10-524-149	PTA Rehab Across the Lifespan	2
10-524-150	PTA Professional Issues 2	2
10-524-151	PTA Clinical Practice 3	5
10-809-172	Introduction to Diversity Studies	3

Production Planner

100% Online

Program Number 61-182-5

Pathway Certificate, 11 Credits

Production Planners are involved with the planning and controlling of the flow of materials and information to effectively manage an organization's resources, minimize costs, and provide high levels of customer service. Completion of the Production Planner Pathway Certificate will prepare you for an introductory position within supply chain management, help you cross train in a new area, or expand your skills within a short time period.

Program Basics

- 100% Online
- These courses are not eligible for financial aid unless the student is enrolled in an eligible program. Please see an advisor to determine financial aid eligibility.
- Credits earned in the Production Planner Pathway Certificate may be applied toward the one-year Supply Chain Assistant Technical Diploma and the two-year Supply Chain Management Associate Degree.

Related Degrees and Certificates

- Logistics or
- Purchasing Agent/Buyer
- Supply Chain Assistant
- Supply Chain Management

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TECHNICAL COLLEGE

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The curriculum for the 2026-2027 academic year is tentative. Current students should view their degree audit in the Student Portal.

Semester 1: 8 Credits

Course Number	Course Name	Credits
10-103-106	Beginning Microsoft Excel	1
10-103-118	Intermediate Microsoft Excel	1
10-182-104	Inventory Management	3
10-623-110	Lean Concepts	3

Semester 1: 3 Credits

Course Number	Course Name	Credits
10-182-137	Technology in the Supply Chain	3

Purchasing Agent/Buyer

100% Online

Program Number 61-182-4

Pathway Certificate, 14 Credits

Purchasing Agents/Buyers are involved with selecting and evaluating suppliers, creating and maintaining supplier relationships, and negotiating prices to minimize costs, and improve on time delivery. Completion of the Purchasing Agent/Buyer Pathway Certificate will prepare you for an introductory position within supply chain management, help you cross train in a new area, or expand your skills within a short time period.

Program Basics

- 100% Online
- These courses are not eligible for financial aid unless the student is enrolled in an eligible program. Please see an advisor to determine financial aid eligibility.
- Credits earned in the Purchasing Agent/Buyer Pathway Certificate may be applied toward the one-year Supply Chain Assistant Technical Diploma and the two-year Supply Chain Management Associate Degree.

Related Degrees and Certificates

- Logistics or
- Production Planner
- Supply Chain Assistant
- Supply Chain Management

Southwest Wisconsin
TECHNICAL COLLEGE

Start your application today!

The curriculum for the 2026-2027 academic year is tentative. Current students should view their degree audit in the Student Portal.

Semester 1: 8 Credits

Course Number	Course Name	Credits
10-103-106	Beginning Microsoft Excel	1
10-103-118	Intermediate Microsoft Excel	1
10-182-103	Purchasing	3
10-623-110	Lean Concepts	3

Semester 1: 6 Credits

Course Number	Course Name	Credits
10-182-108	Global Supply Chain Management	3
10-182-137	Technology in the Supply Chain	3

Radiography

Program Number 10-526-1

Associate Degree, 63 Credits

Help doctors and patients find the answers they need. Radiographers provide an inside look. The Radiography associate degree program at Southwest Wisconsin Technical College will prepare you for a career as a radiographer. Radiographers, also known as radiologic technologists, play a key role in many health care settings, producing medical images used in the diagnosis and treatment of disease.

Program Basics

- Face-to-Face courses
- Fall program start date.
- Students must achieve a grade of a C or better in each course of the program curriculum to be eligible to progress.
- Current Healthcare Provider CPR certification must be maintained throughout the program (Courses must include CPR, and a hands-on exam must be taken).
- Students who complete this program can pursue transfer to bachelor's degree programs.
- Wisconsin law requires background checks for persons who provide care for others or have access to people who receive care.
- Classes are offered daytime with occasional evenings.

Program Outcomes

At the completion of this program, students are expected to be able to:

- Carry out the production and evaluation of radiographic images.
- Practice radiation safety principles.
- Provide quality patient care.
- Model professional and ethical behavior consistent with A.R.R.T. Code of Ethics.
- Apply critical thinking and problem-solving skills in the practice of diagnostic radiography.

Southwest Wisconsin
TECHNICAL COLLEGE

Start your application today!

The curriculum for the 2026-2027 academic year is tentative. Current students should view their degree audit in the Student Portal.

Semester 1: 17 Credits

Course Number	Course Name	Credits
10-526-149	Radiographic Procedures 1	5
10-526-158	Introduction to Radiography	3
10-526-159	Radiographic Imaging	3
10-526-168	Radiography Clinical 1	2
10-806-177	General Anatomy & Physiology	4

Semester 2: 13 Credits

Course Number	Course Name	Credits
10-526-191	Radiographic Procedures 2	5
10-526-192	Radiography Clinical 2	3
10-526-230	Advanced Radiographic Imaging	2
10-801-136	English Composition 1	3

Semester 3: 6 Credits

Course Number	Course Name	Credits
10-526-193	Radiography Clinical 3	4
10-526-231	Imaging Modalities	2

Semester 4: 14 Credits

Course Number	Course Name	Credits
10-526-194	Imaging Equipment Operation	3
10-526-195	Radiographic Image Analysis	2
10-526-199	Radiography Clinical 4	3
10-801-198	Speech	3
10-809-198	Introduction to Psychology	3

Semester 4: 15 Credits

Course Number	Course Name	Credits
10-526-174	ARRT Certification Seminar	2
10-526-189	Radiographic Pathology	1
10-526-190	Radiography Clinical 5	2
10-526-197	Radiation Protection and Biology	3
10-526-198	Radiography Clinical 6	2
10-809-196	Intro to Sociology * OR *	
10-809-172	Introduction to Diversity Studies	3

Supply Chain Assistant

Program Number 31-182-1

One-Year Technical Diploma, 32 Credits

Students can take as little as one year to complete this online Supply Chain Assistant Technical Diploma, which provides concentrated learning by focusing on occupational areas. Students learn about supply chain management and how it relates to purchasing, inventory management, logistics, negotiations, global supply chain management, enterprise resource planning, lean, and service operations. Graduates in this fast-paced, growing field can make a positive impact on an organization by increasing profitability and efficiency through skills developed in this program. Many careers and job titles exist in supply chain management such as purchasing associate, material coordinator, production assistant, receiving lead, recycling specialist, cargo agent, and freight broker, among others.

Program Basics

- Technical diploma requiring a minimum of one year to complete.
- All courses offered online.
- Classes start in August and January.
- Financial aid is available to those who qualify.
- High school advanced standing, transcribed, and youth options credits accepted.
- Credit for prior learning available.
- Credits earned in Logistics Pathway Certificate may be applied toward one-year Supply Chain Assistant Technical Diploma.
- Credits earned in one-year Supply Chain Assistant Technical Diploma may be applied to two-year Supply Chain Management Associate Degree.

Program Outcomes

At the completion of this program, students are expected to be able to:

- Technical diploma requiring a minimum of one year to complete.
- All courses offered online.
- Courses start every eight weeks.
- Financial aid is available to those who qualify.
- High school advanced standing, transcribed, and youth options credits accepted.
- Credit for prior learning available.
- Credits earned in Materials Management Pathway Certificate and Logistics Pathway Certificate may be applied toward one-year Supply Chain Assistant Technical Diploma.
- Credits earned in one-year Supply Chain Assistant Technical Diploma may be applied to two-year Supply Chain Management Associate Degree.

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TECHNICAL COLLEGE

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The curriculum for the 2026-2027 academic year is tentative. Current students should view their degree audit in the Student Portal.

Semester 1: 14 Credits

Course Number	Course Name	Credits
10-623-110	Lean Concepts	3
10-804-123	Math with Business Applications	3
10-103-106	Beginning Microsoft Excel: 4-week class	1
10-103-118	Intermediate Microsoft Excel: 4-week class	1
10-182-103	Purchasing	3
10-182-104	Inventory Management	3

Semester 2: 12 Credits

Course Number	Course Name	Credits
10-182-108	Global Supply Chain Management	3
10-182-107	Logistics	3
10-182-109	Service Operations Management	3
10-182-137	Technology in the Supply Chain	3

Semester 3: 6 Credits

Course Number	Course Name	Credits
10-801-136	English Composition 1	3
10-804-189	Introductory Statistics	3

Supply Chain Management

Program Number 10-182-1

Associate Degree, 62 Credits

Students can build on the online Supply Chain Assistant Technical Diploma and earn an associate's degree in Supply Chain Management. The associate's degree includes additional courses in team building, management, statistics, and lean six sigma. These added courses prepare a student to apply DMAIC (define, measure, analyze, improve and control) to supply chain processes.

Program Basics

- Associate degree
- 6 semesters – 61 credits
- 100% online, full or part time. Some courses available on campus.
- Classes start every 8 weeks
- Financial aid eligible
- Credit for prior learning may be available
- Continuous Improvement (Lean/Lean Six Sigma) Focus

Program Outcomes

At the completion of this program, students are expected to be able to:

- Implement Supply Management practices in a global environment
- Demonstrate operations management techniques across product and service industries
- Analyze logistic interfaces and activities in a supply chain
- Evaluate demand management techniques and customer service policies

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TECHNICAL COLLEGE

Start your application today!

The curriculum for the 2026-2027 academic year is tentative. Current students should view their degree audit in the Student Portal.

Semester 1: 14 Credits

Course Number	Course Name	Credits
10-623-110	Lean Concepts	3
10-804-123	Math with Business Applications	3
10-103-106	Beginning Microsoft Excel: 4-week class	1
10-103-118	Intermediate Microsoft Excel: 4 week class	1
10-182-103	Purchasing	3
10-182-104	Inventory Management	3

Semester 2: 12 Credits

Course Number	Course Name	Credits
10-182-108	Global Supply Chain Management	3
10-182-107	Logistics	3
10-182-109	Service Operations Management	3
10-182-137	Technology in the Supply Chain	3

Semester 3: 6 Credits

Course Number	Course Name	Credits
10-801-136	English Composition 1	3
10-804-189	Introductory Statistics	3

Semester 4: 13 Credits

Course Number	Course Name	Credits
10-102-108	Risk Management	3
10-101-111	Accounting 1	4
10-102-130	Management Principles	3
10-809-199	Psychology of Human Relations	3

Semester 5: 11 Credits

Course Number	Course Name	Credits
10-801-198	Speech	3
10-809-195	Economics OR	3
20-809-287	Principles of Macroeconomics	3
10-102-108	Risk Management	3
10-182-138	Supply Chain Capstone	2

Semester 6: 6 Credits

Course Number	Course Name	Credits
10-809-143	Microeconomics	3
10-809-196	Introduction to Sociology	3

Surgical Technology

Program Number 10-512-1

Associate Degree, 61 Credits

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. They work under medical supervision to ensure that the operating room or 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 the safe and effective conduct of invasive surgical procedures.

Program Basics

- The Surgical Technology Program is accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of Accreditation Review Council on Education in Surgical Technology and Surgical Assisting (ARC/STSA).
- Face-to-Face and Online courses
- Shared courses with the Nursing Program
- Financial aid available to those that qualify
- Summer program start date
- May take some courses immediately upon program acceptance
- Students must achieve a grade of a C or better in each course of the program curriculum to be eligible to progress.
- Current Healthcare Provider CPR certification must be maintained throughout the program. (Courses must include CPR, and a hands-on exam must be taken.)
- Students who complete this program can pursue transfer to bachelor degree programs.

Program Outcomes

At the completion of this program, students are expected to be able to:

- Apply healthcare and technological science principles to the perioperative environment
- Maintain principles of sterile technique in the surgical environment
- Provide a safe, efficient, and supportive environment for the patient
- Prepare the patient, operating room and surgical team for the preoperative phase
- Perform intraoperative case management in the scrub role
- Perform postoperative case management
- Function as an ethical, legal, and professional member of the healthcare team as determined by governing bodies

Southwest Wisconsin
TECHNICAL COLLEGE

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The curriculum for the 2026-2027 academic year is tentative. Current students should view their degree audit in the Student Portal.

Semester 1: 7 Credits (Summer)

Course Number	Course Name	Credits
10-501-101	Medical Terminology	3
10-806-177	General Anatomy & Physiology	4

Semester 2: 13 Credits

Course Number	Course Name	Credits
10-512-125	Intro to Surgical Technology	4
10-512-126	Surgical Tech Fundamentals 1	4
10-512-127	Exploring Surgical Issues	2
10-801-198	Speech	3

Semester 3: 15 Credits

Course Number	Course Name	Credits
10-512-128	Surgical Tech Fundamentals 2	4
10-512-129	Surgical Pharmacology	2
10-512-130	Surgical Skills Application	2
10-801-136	English Composition 1	3
10-806-197	Microbiology	4

Semester 4: 13 Credits

Course Number	Course Name	Credits
10-512-131	Surgical Interventions 1	4
10-512-132	Surgical Technology Clinical 1	3
10-512-133	Surgical Technology Clinical 2	3
10-809-198	Introduction to Psychology	3

Semester 5: 13 Credits

Course Number	Course Name	Credits
10-512-135	Surgical Technology Clinical 3	3
10-512-136	Surgical Technology Clinical 4	3
10-512-142	Surgical Interventions II	4
10-809-196	Intro to Sociology OR	
10-809-172	Introduction to Diversity Studies	3

Tax Preparer Assistant

Program Number 61-101-2
Pathway Certificate, 12 Credits

Prepare tax returns for individuals or small businesses. As a student in the Tax Preparer Assistant Certificate, you will learn to conduct tax interviews, use appropriate tax adjustments, and prepare simple or complex tax returns.

Career Pathway

- Credits earned in the Tax Preparer Pathway Certificate may be applied toward the one-year Accounting Assistant Technical Diploma and the Accounting Associate Degree.

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Semester 1: 12 Credits

Course Number	Course Name	Credits
10-101-111	Accounting 1	4
10-101-131	Federal Income Tax	4
10-103-128	Beginning Microsoft Office	1
10-801-198	Speech	3

University Transfer: Liberal Arts-Associate of Arts

Program Number 20-800-1
Associate Degree

The Liberal Arts–Associate of Arts degree provides a general education coursework foundation for individuals that intend to continue their education at a baccalaureate degree granting college or university. This degree plan focuses on Humanities and Social Science classes.

By completing this degree, you have the benefit of a degree-to-degree transfer, where universities grant junior status and waive specific lower division requirements. These may include general degree requirements and individual courses taken at Southwest Tech.

Program Outcomes

At the completion of this program, students are expected to be able to:

- Employ effective verbal and nonverbal communication skills in diverse professional and social contexts.
- Display quantitative reasoning skills.
- Apply critical thinking skills.
- Demonstrate effective use of scientific method skills across diverse settings within our physical, chemical, and biological environments.
- Analyze social, cultural, political, and historical dimensions of our world.
- Demonstrate an increased responsibility for self-directed learning and personal wellness.

The following courses and credits are needed to earn a degree in this program and may vary based on academic and transfer goals. You will work with an assigned academic advisor to register for coursework each semester.

English: 6 Credits

Course Number	Course Name	Credits
10-801-136	English Composition I	3
20-801-223	English Composition II	3

Speech: 3 Credits

Course Number	Course Name	Credits
10-801-198	Speech	3

World Language: 4 Credits

Course Number	Course Name	Credits
20-802-211	Spanish I	4

Health/Wellness/Physical Education: 1 Credit

Course Number	Course Name	Credits
20-807-204	Physical Fitness for Life	1

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Humanities: 12 Credits

Course Number	Course Name	Credits
10-809-166	Intro to Ethics	3
20-801-204	Introduction to Literature	3
20-801-217	American Literature: Beginning to 1865	3
20-801-218	American Literature: 1865 to Present	3
20-803-211	US History to 1877	3
20-803-212	US History 1877 to Present	3
20-815-210	Art History: Renaissance to Modern	3

Social Sciences: 12 Credits

Course Number	Course Name	Credits
10-809-196	Introduction to Sociology	3
10-809-198	Introduction to Psychology	3
10-809-122	Intro to American Government	3
10-809-128	Marriage and Family	3
20-809-287	Principles of Macroeconomics	3
10-809-143	Microeconomics	3
10-809-159	Abnormal Psychology	3
10-809-188	Developmental Psychology	3
10-809-216	Introduction to Education	3

Mathematics & Natural Science: 10 Credits

Course Number	Course Name	Credits
10-804-189	Introductory Statistics	3
20-804-211	Quantitative Reasoning	4
20-804-212	College Algebra	4
20-804-229	Math Analysis	5
20-806-234	General Biology	4
20-806-209	College Chemistry 1	5
20-806-212	College Chemistry 2	5
20-806-207	Anatomy & Physiology I	4
20-806-208	Anatomy & Physiology II	4
20-806-215	Environmental Science	3
20-806-230	Weather Fundamentals	4
20-804-231	Calculus Analytic Geometry I	5
20-804-232	Calculus Analytic Geometry 2	5
20-804-223	University Physics 1-Calculus Based	5

Diversity & Ethnic Studies: 3 Credits

Course Number	Course Name	Credits
10-809-172	Introduction to Diversity Studies	3

Elective: 1 Credit

Course Number	Course Name	Credits
20-890-201	Foundations of University Transfer and Learning	1

University Transfer: Liberal Arts-Associate of Science

Program Number 20-800-1
Associate Degree

The Liberal Arts–Associate of Science degree provides a general education coursework foundation for individuals that intend to continue their education at a baccalaureate degree granting college or university. This degree plan focuses on Natural Science and Mathematics classes.

By completing this degree, you have the benefit of a degree-to-degree transfer, where universities grant junior status and waive specific lower division requirements. These may include general degree requirements and individual courses taken at Southwest Tech.

Program Outcomes

At the completion of this program, students are expected to be able to:

- Employ effective verbal and nonverbal communication skills in diverse professional and social contexts.
- Conduct evaluations utilizing mathematical reasoning skills.
- Apply critical thinking skills.
- Perform analysis across diverse settings within our physical, chemical, and biological environments, employing scientific method skills.
- Understand the social, cultural, political, and historical dimensions of our world.
- Demonstrate an increased responsibility for self-directed learning and personal wellness.

The following courses and credits are needed to earn a degree in this program and may vary based on academic and transfer goals. You will work with an assigned academic advisor to register for coursework each semester.

English: 6 Credits

Course Number	Course Name	Credits
10-801-136	English Composition I	3
20-801-223	English Composition II	3

Speech: 3 Credits

Course Number	Course Name	Credits
10-801-198	Speech	3

Health/Wellness/Physical Education: 1 Credit

Course Number	Course Name	Credits
20-807-204	Physical Fitness for Life	1

World Language: 4 Credits

Course Number	Course Name	Credits
20-802-211	Spanish I	4

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Humanities: 6 Credits

Course Number	Course Name	Credits
10-809-166	Intro to Ethics	3
20-801-204	Introduction to Literature	3
20-801-217	American Literature: Beginning to 1865	3
20-801-218	American Literature: 1865 to Present	3
20-803-211	US History to 1877	3
20-803-212	US History 1877 to Present	3
20-815-210	Art History: Renaissance to Modern	3

Social Sciences: 6 Credits

Course Number	Course Name	Credits
10-809-196	Intro to Sociology	3
10-809-122	Intro to American Government	3
10-809-198	Introduction to Psychology	3
10-809-128	Marriage and Family	3
20-809-287	Principles of Macroeconomics	3
10-809-143	Microeconomics	3
10-809-159	Abnormal Psychology	3
10-809-188	Developmental Psychology	3
10-809-216	Introduction to Education	3

Mathematics & Natural Science: 20 Credits

Course Number	Course Name	Credits
10-804-189	Introductory Statistics	3
20-804-211	Quantitative Reasoning	4
20-804-212	College Algebra	4
20-804-229	Math Analysis	5
20-806-234	General Biology	4
20-806-209	College Chemistry 1	5
20-806-212	College Chemistry 2	5
20-806-207	Anatomy & Physiology I	4
20-806-208	Anatomy & Physiology II	4
20-806-215	Environmental Science	3
20-806-230	Weather Fundamentals	4
20-804-231	Calculus Analytic Geometry I	5
20-804-232	Calculus Analytic Geometry 2	5
20-804-223	University Physics 1-Calculus Based	5

Diversity & Ethnic Studies: 3 Credits

Course Number	Course Name	Credits
10-809-172	Introduction to Diversity Studies	3

Elective: 1 Credit

Course Number	Course Name	Credits
20-890-201	Foundations of University Transfer and Learning	1

Welding

Program Number 31-442-1
Technical Diploma, 31 Credits

The welding program trains students in manual, and semi-automatic welding processes used in a variety of fabrication and construction industries. Students develop skill proficiency through practice in over 19 welding processes, in all positions, and with a variety of metals. In addition, welding students learn to identify base and filler materials and their properties, operate equipment properly, practice correct procedures, test for strength and appearance, work safely and productively, be responsible for quality control, read blueprints for necessary information, measure and use math, and practice good interpersonal relations.

Program Basics

- The Southwest Tech Welding program is accredited by the American Welding Society, 8669 NW 36 Street, #130, Miami, Florida 33166. 305-443-9353 / 800-443-9353 (voice) 305-443-7559 (Fax).
- Technical diploma, requiring a minimum of nine months to complete.
- High school articulation courses accepted.
- Financial aid available.

Program Outcomes

At the completion of this program, students are expected to be able to:

- Demonstrate industry-recognized safety practices
- Interpret welding drawings
- Produce shielded metal arc welds (SMAW)
- Produce gas metal arc welds (GMAW)
- Produce flux core welds
- Produce gas tungsten arc welds (GTAW)
- Perform cutting operations
- Produce Oxyfuel welds

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The curriculum for the 2026-2027 academic year is tentative. Current students should view their degree audit in the Student Portal.

Semester 1: 16 Credits

Course Number	Course Name	Credits
31-442-310	Equipment Safety	1
31-442-311	Oxyfuel Gas Cutting & Gouging	1
31-442-312	Arc Cutting & Gouging	1
31-442-313	Plasma Cutting & Gouging	1
31-442-314	Oxyfuel Equipment	1
31-442-315	Oxyfuel Brazing & Welding- Carbon Steel	1
31-442-316	Oxyfuel Brazing & Welding- Stainless Steel	1
31-442-320	SMAW - Equipment	1
31-442-336	SMAW	2
31-457-317	Forming & Folding Metal	1
31-457-318	Fabricating	1
31-457-334	Fabrication Planning & Drawing	1
31-804-305	Applied Mathematics	2
32-442-308	Blueprint Reading-Welding 1	1

Semester 2: 15 Credits

Course Number	Course Name	Credits
31-442-323	GTAW - Equipment	1
31-442-324	GTAW - Carbon Steel	1
31-442-325	GTAW - Aluminum	1
31-442-326	GTAW - Stainless Steel	1
31-442-327	GMAW - Equipment	1
31-442-328	GMAW - Carbon Steel (S Process)	1
31-442-329	GMAW - Aluminum	1
31-442-330	GMAW - Stainless Steel	1
31-442-331	GMAW - Carbon Steel (Spray Transfer)	1
31-442-332	FCAW - Equipment	1
31-442-333	FCAW - Carbon Steel (Gas Shielded)	1
31-442-340	Welding Internship	1
31-801-310	Workplace Communication	2
32-442-309	Blueprint Reading-Welding 2	1

Apprenticeships

Construction Electrician Apprenticeship

Program Number 50-413-2, 16 Credits

Construction electricians lay out, assemble, install and test electrical circuits of fixtures, controls and switches, alarms, communications, and light and power systems. The Construction Electrician Apprenticeship Program is five years in length, consisting of 8,000 hours. The apprentice attends 576 hours of paid related instruction classes at Southwest Tech. Classes are usually one 8-hour day every other week between August and May. Apprentices must also complete unpaid related instruction in OSHA safety, NEC code, First Aid, CPR, and transition to trainer. Apprentices must take and pass the State Electrical Journeyman Exam prior to the completion of the Apprenticeship Contract.

This course is not eligible for financial aid.

Included in the 576 hours of Construction Electrical Apprenticeship training:

- NFPA 70E
- AC/DC Theory
- Solid State Fundamentals
- Electric Motor / Motor Controls
- Programmable Logic Controls
- National Electrical Code
- Conduit Bending

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Paid Related Instruction (Day School Courses): 16 Credits

Course Number	Course Name	Credits
50-413-521	Construction Electrician I	2
50-413-522	Construction Electrician II	2
50-413-523	Construction Electrician III	2
50-413-524	Construction Electrician IV	2
50-413-525	Construction Electrician V	2
50-413-526	Construction Electrician VI	2
50-413-527	Construction Electrician VII	2
50-413-528	Construction Electrician VIII	2

Program Outcomes

At the completion of this program, students are expected to be able to:

- Installing new wiring and repairing old wiring.
- Installing receptacles, lighting systems and fixtures.
- Planning and installing raceway systems.
- Troubleshooting and repairing electrical systems.
- Planning and initiating projects.
- Establishing temporary power during construction.
- Establishing power distribution within project.
- Establishing grounding system.
- Installing service to buildings and other structures.
- Providing power and controls to motors, HVAC, and other equipment.
- Installing fire alarm systems.
- Installing and repairing traffic signals, outdoor lighting, and outdoor power feeders.
- Establishing OSHA and customer safety requirements.
- Installing instrumentation and process control systems, including energy management systems.
- Erecting and assembling power generation equipment.
- Installing security systems.
- Installing, maintaining and repairing lighting protection systems.
- Installing and repairing telephone and data systems.

Industrial Electrician Apprenticeship

Program Number 50-413-1, 20 Credits

The industrial electrician maintains and repairs many different types of electrical equipment. They may also modify or install electrical equipment like motors, transformers, generators, machine controls and lighting systems in industrial, commercial and public establishments. The electrician is responsible for the periodic inspection of equipment to locate and repair defects before breakdowns occur.

The Industrial Electrician Apprenticeship Program is four years in length. The apprentice attends 720 hours of paid related instruction classes at Southwest Tech.

This course is not eligible for financial aid.

Typical duties of electricians include:

- Performing preventive maintenance.
- Replacing units or parts such as wiring, fuses, circuit breakers, coils or switches; measuring, cutting, bending, threading and installing circuits.
- Using test meter.
- Working from blueprints and diagrams.
- Making mathematical computations.
- Troubleshooting AC and DC drives.
- Installing programmable logic controllers.

Program Outcomes

At the completion of this program, students are expected to be able to:

- Maintain safe working practices through the use of safety guidelines.
- Select, maintain and properly use tools and equipment.
- Install and maintain power distribution and lighting systems.
- Install and maintain industrial machinery and equipment including panel building.
- Install and maintain material handling equipment, welding equipment and robotics.
- Install and maintain general plant equipment.
- Install and maintain communication systems.
- Install and maintain high voltage equipment, including sub-stations.
- Read, interpret and revise drawings and specifications.
- Select, install and maintain motor drives and controls.

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Paid Related Instruction (Day School Courses): 20 Credits

Course Number	Course Name	Credits
50-413-501	Industrial Electrician I	4
50-413-502	Industrial Electrician II	4
50-413-503	Industrial Electrician III	2
50-413-504	Industrial Electrician IV	2
50-413-505	Industrial Electrician V	2
50-413-506	Industrial Electrician VI	2
50-413-507	Industrial Electrician VII	2
50-413-508	Industrial Electrician VIII	2

Plumbing Apprenticeship

Program Number 50-427-5, 21 Credits

Plumbers install, repair and maintain the water supply, waste water treatment, drainage and gas systems in homes, commercial and industrial buildings. The work includes plumbing tasks to assemble, install and repair pipes, fittings, and fixtures of heating, water and drainage systems according to specifications and plumbing codes.

The Technical Plumbing Apprenticeship program is five years in length, with a minimum of 8,000 hours. This includes 572 hours of paid related instruction and 260 hours of unpaid instruction, plus an 8 hour Plumbing Prep Test-Out Exam or a 54 hour Plumbing Code Review Course. Within the first year of their apprenticeship, students must complete OSHA 30-hour Safety Training and obtain and maintain CPR/AED/First Aid certification.

This course is not eligible for financial aid.

Included in the 572 hours of day school Plumbing Apprenticeship training:

- Water distribution
- Cross connection control
- Sanitary drains
- Vents and venting
- Private onsite wastewater treatment systems
- Green plumbing
- Solar hot water
- Water reuse
- Storm water
- State of Wisconsin Department of Safety and Professional Services Administrative Code

Program Outcomes

At the completion of this program, students are expected to be able to:

- Perform work safely
- Install mechanical equipment
- Install electrical equipment
- Maintain mechanical equipment
- Troubleshoot mechatronic systems
- Operate machine shop tools and machines
- Weld and fabricate parts
- Maintain automation systems
- Modify devices and systems
- Maintain documents and records
- Local options and work processes

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Paid-Related Instruction (Day School Courses):

Course Number	Course Name	Credits
50-427-751	Sanitary Drains 1	2
50-427-752	Vents and Venting Systems	2
50-427-753	Water Distribution 1	2
50-427-754	Water Distribution 2	2
50-427-757	Green Plumbing Applications	2
50-427-755	Sanitary Drains 2	2
50-427-756	Private On-site Wastewater Treatment Systems (POWTS)	2
50-427-758	Plumbing Advanced Topics/TSA	2
50-427-763	Plumbing PRI Independent Study	1
50-427-770	Plumbing PRI Independent Study: Makeup Hours	0.5

Unpaid-Related Instruction (Night School Courses):

Students take 1 night course per semester over 7 semesters.

Course Number	Course Name	Credits
10-620-131	Electrical Wiring - Basic	1
31-442-335	Welding for Plumbers	1
50-427-512	Level & Transit Plumbers	0.75
50-427-558	Isometric Interpretation & Drawing	0.5
50-427-760	Plumbing Applications	1
50-427-761	Plumbing Service and Repair	1.25
50-427-762	Plumbing Blueprint Reading	1.25

Technical Studies- Journeyworker

Program Number 10-499-5

Apprenticeship, 60 Credits

The Technical Studies-Journeyworker program provides students who have completed a registered apprenticeship program an option to receive an associate degree designed around individual needs. This 60-credit degree is designed for individuals seeking academic recognition for the completion of a registered apprenticeship. It is intended to support lifelong learning and accelerate the achievement of individual career goals.

Program Basics:

- Associate degree
- Day, evening, or online classes available
- Financial aid available
- Classes start in June, August, or January
- Occupational Specific Courses (39 credits) are met by a Wisconsin Apprenticeship Completion Certificate, issued by the Department of Workforce Development-Bureau of Apprenticeship Standards (DWD-BAS) registered program. The program must include a minimum of 400 hours of prescribed apprentice-related instruction in the Wisconsin Technical College System.

Degree Completion Requirements

At the completion of this program, students are expected to be able to:

- Possess a Wisconsin Apprenticeship Completion Certificate issued by the Department of Workforce Development-Bureau of Apprenticeship Standards registered program which includes a minimum of 400 hours of prescribed apprentice related technical instruction in the Wisconsin Technical College System.
- Complete all prescribed WTCS apprentice-related technical instruction. Possession of the DWD-BAS Wisconsin Apprenticeship Completion Certificate AND successful completion of all prescribed coursework fulfills the 39 credit minimum technical studies requirement of the Technical Studies – Journeyworker Associate of Applied Science degree.
- Meet the WTCS Associate of Applied Science Degree requirement for a minimum of 21 credits. This consists of 15 credits of general education distributed across Communications, Social Science, Behavioral Science, Math and/or Science categories and 6 elective Associate Degree Level Technical Studies or additional general education credits.
- Complete at least 25% of the total program credits through coursework at the technical college granting the AAS degree and meet any institutional graduation requirements. A WTCS apprenticeship program with at least 400 hours of paid related instruction (PRI) meets this threshold.

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Students in this program are required to take 6 credits of Associate Degree Level Technical Studies (10-xxx-xxx) or an additional 6 General Education credits. The additional General Education credits may come from the list below. Contact the program Advisor to discuss options or credits for consideration.

Communications: 6 Credits

Course Number	Course Name	Credits
10-801-136	English Composition 1	3
10-801-195	Written Communication	3
10-801-198	Speech	3
10-801-197	Technical Reporting	3
10-801-198	Speech	3

Social Science: 3 Credits

Course Number	Course Name	Credits
10-809-122	Intro to American Government	3
10-809-128	Marriage & Family	3
10-809-143	Microeconomics	3
10-809-166	Intro to Ethics: Theory & App	3
10-809-172	Introduction to Diversity Studies	3
10-809-195	Economics	3
10-809-196	Intro to Sociology	3

Behavioral Science: 3 Credits

Course Number	Course Name	Credits
10-809-159	Abnormal Psychology	3
10-809-188	Development Psychology	3
10-809-198	Intro to Psychology	3
10-809-199	Psychology of Human Relations	3

Math and/or Science: 3 Credits

Course Number	Course Name	Credits
10-804-107	College Mathematics	3
10-804-113	Technical Math 1A	3
10-804-114	Technical Math 1B	2
10-804-118	Intermediate Algebra with Applications	4
10-804-123	Math with Business Applications	3
10-804-133	Math & Logic	3
10-804-189	Introductory Statistics	3
10-804-195	College Algebra with Applications	3
10-804-196	Trigonometry with Apps	3
10-806-143	College Physics 1	4
10-806-154	General Physics 1	4
10-806-177	General Anatomy & Physiology	4
10-806-179	Advanced Anatomy & Physiology	4
10-806-186	Intro to Biochemistry	4
10-806-189	Basic Anatomy	3
10-806-197	Microbiology	4

Continuing and Community Education

Business & Industry Services

Southwest Tech, through its Business & Industry Services office, provides a full array of education, training and performance improvement solutions fit your needs. Whether you are an individual looking to build your skills or an employer looking to provide a few employees with training opportunities, these workshops are designed to meet your needs. Customized training and technical assistance is provided by industry experts, who will work with you and your team to solve production problems, increase productivity, and reduce costs through targeted employee training programs. Open enrollment training opportunities are available and can be accessed via our continuing education portal at www.swtc.edu/bisreg, if you don't see the training you are looking for reach out to us through our website www.swtc.edu/bis, email bis@swtc.edu or call 608.822.2323.

CDL Training

Earn your Commercial Driver's License (CDL) with our top-rated program! Jumpstart your career in the trucking industry, where demand is high and opportunity awaits! Leadership Training: Leadership Training can fill the leadership skill gaps in your company or organization through customized training. We offer a variety of options for training in core values, time, stress and change management, as well as workshops in Strengths Finder, Everything DiSC Workplace, workplace communication and much more. No matter which option you choose, we use the same formula for success, first we Grow the Person, then we Develop the Leader, and finally we Build the Team.

LEAN Training

As a continuous improvement model, Lean focuses on the reduction of non-value added activities (waste) in product/service delivery processes. Although Lean has its roots firmly in manufacturing, the principles and practices have been effectively implemented in health care, education, government, banking and other service industries.

Project Management

Are you ready to take your project management skills to the next level? This comprehensive course is designed to provide you with the essential knowledge and skills needed to successfully plan, execute, and oversee projects of all sizes and complexities.

Spanish for the Workplace

Learn about Hispanic/Latino culture and basic Spanish words and phrases to improve workplace communication with native Spanish-speakers. Topics include introductory conversations, common Spanish phrases, basic workplace commands, making inquiries and asking questions and safety/emergency phrases.

Industrial Training

Electro-Mechanical Technology training, such as programmable logic controls (PLCs), motor control, mechatronics, electrical wiring and more can be customized to fit the needs of your business. Our new state-of-the-art mobile trainers can be brought right to your business for ease of scheduling.

Welding

On site, on campus, or in our Welding trailer, training can be customized to fit your needs. Students can take an entire class, utilize our Open Weld Nights to brush up on skills, and take an AWS Certification.

Compliance and Safety

Learn about OSHA standards, policies and procedures, or discuss electrical safety program requirements. Whatever your needs, we can help you stay compliant and up to date when it comes to safety training.

Small Business Development

We can offer customized training in areas such as Microsoft Word/Excel, Marketing (social media), QuickBooks, Customer Service and more! We can also provide Strategic Planning and Business Development consultation.

Workplace Spanish

Learn about Hispanic/Latino culture and basic Spanish words and phrases to improve workplace communication with native Spanish-speakers. Topics include introductory conversations, common Spanish phrases, basic workplace commands, making inquiries and asking questions and safety/emergency phrases.

CPR/AED/First Aid Training

Southwest Tech is an aligned American Heart Association (AHA) Training Center. We offer CPR and First Aid classes at different skill and certification levels based on AHA curriculum. Visit www.swtc.edu/cpr for current course offerings. Email greynolds@swtc.edu or call 608.822.2648 for more information.

Dairy Goat Herd Management Certificate

Whether you are interested in starting a career in dairy goat production, recently started milking dairy goats, or are well established in the dairy goat industry, this certificate is for you! You will be able to earn a certificate by completing:

- 12 online courses with experiential learning components
- An annual Goat Management Academy providing hands-on training

Visit www.swtc.edu/dairygoat, email dairygoat@swtc.edu or call 608.822.2723 for more information.

Emergency Medical Services Training

Southwest Tech offers initial and continuing education for area emergency medical service providers at various levels including EMR, EMT and AEMT. All courses are based on the State of Wisconsin adopted curriculum with the inclusion of the National Education Standards. Depending on provider level and service requirements Southwest Tech also offers required and supplementary continuing education to maintain and enhance the level of care provided by our community's emergency responders. Visit www.swtc.edu/ems for current course offerings.

Email kschoville@swtc.edu or call 608.822.2665

Driver Education

Southwest Tech offers both traditional and online driver education to students within our district and throughout the state, as well as behind-the-wheel instruction for our district high schools. Register for driver education classes online. Students must be 14 years of age or older and enrolled as a student or live within the one of our high school districts. Parents of home-schooled students, please contact your district high school for confirmation of class dates and times.

Email driversed@swtc.edu or call 608.822.2466.

Driver Safety Education Certification

This 9-credit Driver and Safety Education Certification program provides training to teach Driver Education within public, private, commercial and Technical Colleges throughout the state. Students will learn to teach the goals and outcomes of driver and traffic safety education. These goals include in-car instruction, including observation, curriculum development and practical experience behind-the-wheel; curriculum information selection, development and use, with observation and teaching activities and classroom curriculum development; problems of alcohol, drugs and addiction, the effects of physiological, psychological and sociological aspects, as well as how education programs are utilized within our community and schools; behavioral aspects in accident prevention using concepts and methods to understand the impact on unsatisfactory driver-related attitudes and behaviors; and basic concepts and principles of safety and loss prevention, with an emphasis on various teaching techniques relating to school and roadway safety and risk awareness.

Helpful Academic Background

- Wisconsin provisional, lifetime, or master educator license
- Completion of either a Bachelors or Masters degree
- Employment with CESA, Technical College, K-12 School or DOT driving school
- Good verbal and non-verbal communication skills

Email driversed@swtc.edu or call 608.822.2466.

Farm Business & Production Management

Our industry experts are ready to work one-on-one with you to help build your business. This program gives current farm owners/operators opportunities to develop and fine tune their skills with production agriculture. Knowledge and skills are provided through classroom settings, workshops and seminars, speakers of expertise, farm and business tours, and individual on-farm instruction.

Beginning Farm Management

Open to high school juniors and seniors. This course focuses on developing a business plan for a production agriculture career.

- Adult Farm Management Course Offerings:
- Livestock Management
- Financial Management
- Crop Management
- Nutrient Management Planning

Individual instruction is available in the following areas:

- Financial Analysis
- Business and Marketing Planning
- Feasibility Study/Cash Flow
- Farm Succession Planning
- Nutrient Management Planning Update
- Computer Software Training

Visit www.swtc.edu/fbpm or call Kory Stalsberg, 608.379.4076, email kstalsberg@swtc.edu

Firearms Training

The Southwest Tech Firearms Training Range is located at Southwest Tech's Public Safety Complex and features three separate shooting ranges designed with the most sophisticated and innovative equipment to meet a variety of training applications. The range hosts a variety of training courses including law enforcement academy training, advanced law enforcement training and a variety of civilian based courses such as the following:

- Beginner, Basic, Intermediate, or Advanced Handgun
- Basic Revolver
- Basic Hunting Shotgun, Rifle or Semi-Auto Rifle
- Concealed Carry
- Firearms Safety and Awareness

Email publicsafety@swtc.edu or call 608.822.2700.

Group Dynamics

The Group Dynamics / Traffic Safety School program is a highway safety initiative within Wisconsin which aims to reduce the number and frequency of alcohol related crashes. The course is designed to assist those involved in alcohol/traffic related offenses to make permanent changes in their drinking and driving behavior and attitudes. There is

a minimum of 21 classroom hours contained in this program. A 3-point credit to your current driving record can be requested upon completion.

Email trafficsafety@swtc.edu or call 608.822.2700.

Motorcycle Safety

Cycling requires special knowledge and skills that beginning riders likely do not have. Accident rates are high, and the cyclist must be constantly on the alert to avoid dangerous situations. Riders must be especially careful of changes in road and weather conditions. Statistics show that 60 percent of all accidents happen to those with less than one year of riding experience. Courses run from April through October.

Email trafficsafety@swtc.edu or call 608.822.2709

Multiple Offender Program

The Multiple Offender Program is a specialized education course for individuals who have experienced two or more operating while intoxicated (OWI) charges. Participants are encouraged to examine their drinking and driving behavior and attitudes, and to formulate an alternative lifestyle which will improve their ability to operate a vehicle safely. The Multiple Offender Program is not designed as a treatment program. It is intended to benefit the irresponsible drinker who is experiencing continual problems with drinking and driving. Individuals assessed as chemically dependent should not be referred to the program.

Email trafficsafety@swtc.edu or call 608.822.2700 for more information.

Outreach Centers

Southwest Tech offers Adult Basic Education courses, GED/HSED preparation, career planning services, and many other options at several outreach sites throughout Southwest Wisconsin. Many services are free of charge!

Boscobel

Library-Lower Level
1033 Wisconsin Ave.
608.375.5873

Dodgeville

Temporary Location
Dodgeville Family Chiropractic
1206 N. Johns Street
608.930.2878

Fennimore

Southwest Tech
1800 Bronson Blvd.
Knox Learning Center, Room 368
608.822.2633

Platteville

150 East Pine Street
608.822.2326

Prairie du Chien

Memorial Library
125 S. Waucouta Ave.
608.326.0718

Richland Center

373 W. Sixth Street
608.822.2636

For more information, visit your nearest location or **email [Chantel Hampton, Director of Adult Education/Student Success](mailto:Chantel.Hampton@swtc.edu), champton@swtc.edu**

Point Reduction

Students discuss and develop strategies to incorporate positive behaviors and techniques into their driving skills. Students participate in group discussions regarding their personal driving behaviors. Accumulated demerit points may be reduced by three upon successful completion of this course

Email trafficsafety@swtc.edu or call 608.822.2700.

Safety Training

At Southwest Tech, we believe education and prevention are the keys to saving lives. Our classes are designed to help you respond appropriately to emergencies.

- Fire Extinguisher Safety Training
- Basic ropes, knots, and climbing equipment awareness with rappelling activity
- Fire Extinguisher User for Public and Businesses
- General Fire Safety

Email publicsafety@swtc.edu or call 608.822.2700.

Youth Tractor Safety Certification

This is a standard tractor certification course designed to fulfill the Wisconsin mandate that any youth under the age of 16 must complete a tractor and machinery certification course in order to operate agricultural machinery on public roads. This course will provide hands-on training and instruction in the following units: safety, instruments and controls, maintenance and safety checks, starting and stopping tractors, tractor safety on the farm, tractor hitches, PTO equipment, and a tractor driving skill test. Upon successfully completing a written and a tractor driving test, students will be issued a state certificate. Students over age 14 will be issued a federal certificate. Students under age 14 will be issued a federal certificate when they reach the age of 14. Students must be at least 12 years old.

Email gsnider@swtc.edu or call 608.822.2487 for more information.

Course Descriptions

10-006-113

Precision Ag Technologies

3 Credits. Student will study fundamental processes of the Global Positioning System (GPS) with emphasis on its application to agricultural production. Technical aspects of the GPS satellites, differential correction, and hardware will be covered. The specific applications of the technology in agriculture for navigation, mapping, soil management, variable rate technology (VRT), and yield monitoring will be discussed and demonstrated by the student. Student will gain exposure to technology cost, and potential economic benefit of technology application. Student will also be introduced to the operation of Geographic Information Systems (GIS).

10-006-116

Introduction to Soils

3 Credits. Course is designed to provide the student with fundamental knowledge of soil and soil composition. Students will study soil types, formation factors, physical properties, biological properties and basic soil chemistry. Units covering tillage, conservation, pH and soil management will also be included. Students will gain the skills required to interpret soil survey maps and recognize qualities of various soil types. The student will perform soil sampling, residue measurements, compaction assessments and soil loss determinations per crop rotation guidelines.

10-006-117

Agribusiness Performance Standards

3 Credits. Course will provide students with ability to recognize and evaluate performance standards used in the agribusiness industry. Topics will include DOT regulations, legal descriptions, commodity marketing, contracts, financial statements and scorecards. Production standards will also be covered using industry benchmarks.

10-006-121

Agribusiness Computer Applications

2 Credits. Students will develop skills in the use of agricultural applications of computer technologies including: Farmworks; creating and using spreadsheets in Excel; creating and using documents in Word; creating documents in Power Point; using email; using farm financial record keeping programs; using an IPAD and Applications; and appropriate social media etiquette.

10-006-122

Pest Management

1 Credit. Students will learn the principles and methods used in the control of pests found on Golf Courses. Preparation for the Wisconsin Commercial Pesticide Applicator licensing will include restricted use regulations, applicator safety, environmental safety, equipment calibration, and production label interpretations. Course topics will include pesticide mode of

action, interpretation of aerial photos, and integrated pest management practices (IPMs). During the course, students will complete that exam for licensing as a Wisconsin Commercial Pesticide Applicator for Golf Courses.

10-006-123

Artificial Insemination Training

1 Credit. This course is designed for the student wishing to learn artificial insemination of cattle as a career choice or to be used for personal farm purposes.

10-006-124

Pesticide Applicator Training

1 Credit. The learner will develop a strong understanding and basis of pest application training techniques, methods and standards used in the industry today. This class prepares students to take the Commercial Pesticide Applicator Certifying and Licensing exam category 1.1 Field and Vegetable Crops for the state of Wisconsin.

10-006-125

Crop Protection Products

2 Credits. Course provides information related to current products and practices used in protection of crops. Protection of crops both during the growing season and while in storage following harvest will be covered.

10-006-126

Pest ID & Mgt/Crop Scouting

3 Credits. The student will learn and develop skills, practices, and principles of identifying and managing pests that are a problem for a variety of common regionally grown agricultural crops. The student will learn control measures and application; proper use and safety measures; how to identify insects, weeds, and diseases in crops; various stages of growth related to timeliness of treatment; and methods of applying control measures. The student will learn principles to follow regarding the different ways of crop scouting.

10-006-127

Soil Fertility and Fertilizers

2 Credits. Course will cover the fundamental and applied principles and concepts of soil fertility and plant nutrition. Attention will be given to the nutrient requirements of the commonly produced agronomic crops of our area. Course will provide the student with the information necessary to plan and produce agronomic crops based on crop needs and available resources. Students will be able to interpret soil test reports and make recommendation based on given information for related crop plants. In-field activities will be used to effectively reinforce the material presented in class.

10-006-128**Nutrient Management Planning**

2 Credits. Course will cover advanced application of nutrient management principles. Special attention will be given to nutrient credits and the management of applied nutrients in consideration of the environment. Meeting requirements of the 590 standard will be followed.

10-006-130**Row Crop Production Management**

2 Credits. This course teaches students to plan, produce, protect, harvest, and store commodity row crops in Wisconsin. Topics include variety selection, seedbed prep, fertilization, planting, weed, insect, and disease control, harvesting, drying, and storage. Late-season scouting, harvest losses, yield determination, and Integrated Pest Management are covered. Students will learn about grading, sampling, and calibrating yield monitors. Field trips reinforce class content. Students will perform a crop profitability comparison.

10-006-132**Spatial Data Collection in Agriculture**

2 Credits. Course will provide the student with skills related to the collection and processing of various types of spatial data in agriculture. Provides detailed instruction and hands-on use of GPS receivers and data loggers to collect field data. Units of study will include an appreciation for the value of data in decision making, operating a GIS (Geographic Information System) software, soil data, yield data, remote imagery and the equipment used to collect data. Students will generate geo-referenced maps using spatial data collected. Pre-requisite: 10-006-132; Precision Ag Technologies 10-006-113

10-006-133**Agribusiness Financial Management**

3 Credits. This course will cover financial documents and practices as they relate to agribusinesses. Students will learn how agribusinesses use financial statements to analyze the financial health of a business. This course will give students a basic understanding of how to manage working capital and obtain financing.

10-006-134**Agricultural Equipment Management**

3 Credits. Course will provide the student with the knowledge necessary to make decisions related to equipment management. Study will include industry trends, power units, machine capacity and equipment management principles. A unit on equipment appraisal will be included. Students will take part in activities off campus to reinforce classroom material.

10-006-136**Agricultural Commodity Marketing**

3 Credits. Operation and use of agricultural commodity markets and institutions as applied to enterprise and firm risk management. Cash markets; futures markets and futures

option markets; basis; hedging and forward pricing; fundamental analysis; technical analysis and risk management strategies.

10-006-137**Agribusiness Marketing & Promotion**

3 Credits. This course will apply specific principles of marketing to an agricultural business. Student will develop understanding and skills related to the relationship between a business and their customers. Units of study will include analyzing market potential, identifying target markets, the food chain, international trade, evaluating market trends and understanding competitive behavior. Students will create a branding plan for a business and outline methods of connecting with the customer base.

10-006-139**Farm Business Management**

3 Credits. The student will be able to evaluate the major strengths and weaknesses of a farm business, develop and implement financial documents needed to run a farm business, utilize a computer for business purposes, identify the differences in business structures, set business benchmarks, understand a business plan, have knowledge of the agriculture loan process, set records up according to farm tax guidelines, and be able to address labor management issues from both employer and employee viewpoints.

10-006-142**Introduction to Animal Health**

2 Credits. This class is designed to introduce the student to the study of farm animal health. During this course students will study animal anatomy, basic immune system function and common diseases (causes, treatments and prevention). They will become familiar with genetic abnormalities and animal behavior. Finally, the student should gain a grasp of the uses of antibiotics, vaccines and hormones.

10-006-144**Livestock Housing & Equipment**

2 Credits. The student will have the opportunity to learn principles of designing correct facilities based on the environment, feeding system, waste removal systems, and factors which influence animal health. Students will compare and contrast various facilities as well as study building materials, design, layout and construction cost estimates. Additionally, students will identify requirements of a concentrated animal feeding operation permit. Students will complete a final project of designing the housing facilities for a livestock species of their choice.

10-006-146**Milk Production**

3 Credits. Students study the value of milk in human nutrition, milk and health issues, the role of dairy cattle in the production of animal protein, physiology of lactation, milk composition, the effect of various feeds, milk testing, production records, recommended milking procedures in association with proper sanitation and prepping the cow, care and main-

tenance of equipment, mastitis and its relationship to profitability, use of laboratory culturing and sensitivity testing, study of computerized production records and their uses, as well as laws regulating milk production. Field trips will be utilized to view firsthand the topics studied in class.

10-006-147

Meat Quality

3 Credits. The students will study the importance of meat industry from the farm to the consumer. Students will be engaged in broad educational opportunities within the meat science industry for preparation in the world of work. Topics will range for live animal evaluation, transportation, safety aspects including regulations, inspection and laws surrounding handling animals, evisceration, wholesale and retail cuts, temperature and use of by products from the animal.

10-006-150

Farm Animal Reproduction

3 Credits. The student will learn the physiology and anatomy of the male and female reproductive tract of livestock. Also, covered in this course are hormones that effect the reproductive tract and the estrus cycle of the female. The student will become familiar with the reproductive disease of males and females. Finally an introduction to the common reproductive protocols and technology used within the industry.

10-006-153

Dairy Production Management

3 Credits. The student will study a variety of topics relevant to the dairy industry for the present and future planning of the industry. An overview of all aspects of the dairy industry ranging from health, nutrition, production, management practices, technology, reproductive, economics, food safety, contracts and employability opportunities. The continued important topic and animal welfare will be addressed. The course will be thoughtful engaging for those learners who have a strong desire for employment and those who have interests in farming. Pre-requisite: 10-080-119 Dairy Mgmt Livestock Housing & Equipment

10-006-157

Livestock Production Management

3 Credits. The student will study a variety of topics relevant to the livestock (beef, swine, and small ruminants) industry for the present and future planning of the industry. An overview of all aspects of the livestock industry ranging from health, nutrition, production, management practices, technology, reproductive, economics, food safety, contracts and employability opportunities. The continued important topic and animal welfare will be addressed. The course will be thoughtful engaging for those learners who have a strong desire for employment and those who have interests in farming. Pre-requisite: 10-080-119 Livestock Housing & Equipment

10-006-159

Agribusiness Computer Applications

1 Credit. Students will construct, manipulate, and select spreadsheets and documents for various situations in the

agriculture industry and on a farm. Data gathering agriculture software will be introduced to demonstrate its use in making management decisions. The use of email features used in business will be explored. Pre/Co-requisite: 10-006-159; 10-103-106 Beginning Microsoft Excel

10-006-160

Plant Science

3 Credits. Provides fundamental knowledge of plant components and their functions. Topics include pollinating and propagating plants, germinating seeds, plant nutrients, and factors affecting photosynthesis, respiration, and transpiration. Participants will experience plant components and their functions through the completion of hands-on activities.

10-006-161

Career Development in Agriculture

1 Credit. Student will explore the various careers in agriculture and develop documents needed to secure a career.

10-006-162

Agribusiness Operations

3 Credits. Students will develop skills in understanding the agribusiness industry and the operational responsibilities of a business. Studies will include the role of management, forecasting, budgeting and the marketing approach to customer satisfaction. Students will develop a business plan for an agricultural related business.

10-006-163

Agribusiness Management

3 Credits. This course will offer the student the opportunity to become familiar with the current trends and practices used in the management of Agricultural businesses. Topics of study will include an overview of the food and fiber system, business organizations, role of management, marketing, forecasting, long range planning, personnel management and strategies of business competitiveness. Student will develop skills in assessing business performance.

10-006-164

Agriculture Law

3 Credits. Students will acquire skills needed to be in compliance with laws regulating the industry of agriculture. Units of study will include: transportation, legal descriptions, USDA and WDACTP regulations, agricultural contracts and others rules pertaining to the operation of an agribusiness.

10-006-167

Agriculture Risk Management

3 Credits. The profitable operation of business is foundational to the sustainability of that business. Students will develop strategies to ensure that the risk associated with the operation of an agribusiness is managed. Studies will include financial health and ratios, taxation, depreciation schedules and making producer recommendations. Pre-requisite: 10-006-162 Agribusiness Operations

10-006-180**Animal Science**

3 Credits. This course provides fundamental knowledge of the animal science field. Topics include animal health, animal environments, anatomy and physiology, genetics and reproduction, animal feedstuffs, and job related safety. Participants will experience animal concepts through the completion of hands-on activities.

10-006-197**Agribusiness Experiential Learning**

3 Credits. The student will have the opportunity to apply course work to a practical, on-the-job situation. Goals, competencies and core abilities are followed. Pre-requisite: Legal 10-006-114 Aspects of Agribusiness or 10-006-126 Pest ID & Mgt/Crop Scouting or 10-006-133 Agribusiness Financial Management or 10-006-150 Farm Animal Reproduction or 10-080-118 Introduction to Animal Health

10-070-101**Field Application Equipment**

2 Credits. Students learn to operate, recondition and maintain field application equipment such as manure spreaders, fertilizer spreaders and field sprayers used on modern farms and cooperatives. Students learn calibration procedures for liquid and dry fertilizer applicators. They will learn common terminology used when working with control monitors and associated equipment.

10-070-102**Basic Ag Electrical Systems**

2 Credits. Students apply the fundamentals of electrical systems as it relates to agricultural equipment. Students gain an understanding of the basic starting and charging systems, lighting systems and accessory system. Students will use digital multi-meters and test lights to diagnose common electrical problems found in agricultural equipment.

10-070-103**Farm Shop Safety and Maintenance**

2 Credits. Students learn skills required to make general repairs in the farm shop. Skill set will include a working understanding of hand tools, power tools, lifting equipment, general shop equipment. Fastener applications and the proper torquing procedures for the various fasteners and gasket/sealant application. Students will gain knowledge of belts, roller chains and tensioning techniques. The student's skills are improved through lab practice while working in a safety conscious manner. Emphasis will be placed on safety considerations when working in the farmstead setting.

10-070-105**Ag Safety, Electrical & Maintenance**

3 Credits. Students will learn skills necessary to help them make general repairs and identify proactive maintenance steps of all types of equipment throughout a farmstead. Safety while performing daily tasks will be included in every

unit. Emphasis areas include selecting personal protective equipment, working around cattle, crop storage, farm chemicals and fluids storage, safety awareness of electrical systems both on equipment and around the farmstead, selecting proper tools to perform maintenance procedures, and ATV safety. Students will gain an understanding of viewing the farmstead with a safety focus to recognize farm hazards and being aware of corrective measures that are needed to make the farmstead safe for all personnel on the farm.

10-080-117**Animal Nutrition & Ration Balancing**

4 Credits. Students will study the digestive systems and nutritional needs of livestock and dairy animals. Identification of feedstuffs and regulations on livestock feeding will be explored. Students will read, interpret, and make recommendations on feed test reports and tags. They will also learn to read rations and mix sheets, along with the formulation and balancing of rations using computer-based software.

10-080-118**Introduction to Animal Health**

3 Credits. This class is designed to introduce the student to the study of farm animal health. During this course students will study animal anatomy, basic immune system function and common diseases (causes, treatments and prevention). They will become familiar with genetic abnormalities and animal behavior. Finally, the student should gain a grasp of the uses of antibiotics, vaccines and hormones.

10-080-119**Livestock Housing & Equipment**

3 Credits. Students will have the opportunity to learn principles of designing correct facilities based on the environment, feeding system, waste removal systems, and factors which influence animal health. Students will compare and contrast various facilities, as well as study building materials, design, layout and construction cost estimates. Additionally, students will identify requirements of a concentrated animal feeding operation permit. Students will complete a final project of designing the housing facilities for a livestock species of their choice.

10-080-120**Animal Genetics**

3 Credits. The student will gain fundamentals in genetics of farm animals in this course. A historical perspective will be studied through Mendelian theory, followed by the study of current bull proving processes. Mastery of the terminology and theory will be used for application of sire selection and animal evaluation. Genomics will also be used to apply current theories in farm animal selection.

10-082-101**Automation in Agriculture**

3 Credits. Provides an overview of automation in agriculture and introduces the tools used. Trends and opportunities with-

in the area of automation will be explored. Focus will be on robotics, data collection, animal health monitoring systems, and automated environments.

10-090-101

Beginning Farm Management

3 Credits. Students will study topics such as business planning, recordkeeping, financial statements, crop planning, livestock management, human resource management, marketing management and risk management. In addition, the course includes time to work with students on transition planning with owner generation, drafting operating agreements, financial statements, loan application preparation, livestock housing design, crop scouting, feed inventory calculations, nutrient management planning, and computerized recordkeeping training.

10-093-101

Plant and Soil Science

3 Credits. Course is designed to provide the student with fundamental knowledge of soil, soil composition and plant components and their function. Students will build their knowledge on the physical and biological properties of soil and soil fertility, along with the factors that influence seed germination, plant growth and reproduction. Students will gain additional knowledge through hands-on experience in the classroom and out in the field.

10-093-102

Grain Production & Management

3 Credits. Course will provide students with knowledge necessary to plan, produce, protect, harvest, and store commodity crops commonly produced in Wisconsin. Students will gain a basic understanding of how livestock production utilizes these commodities. The course will also introduce technology related to the advanced production of commodity crops. Students will gain experience with grain production and management through hands-on labs, field trips, and through real world in-the-field scenarios.

10-093-103

Forage Production & Management

3 Credits. Course will provide students with knowledge necessary to plan, produce, protect, harvest, and store forage crops commonly produced in Wisconsin for livestock production. Students will gain a basic understanding of how livestock production utilizes these forages. The course will also introduce technology related to the advanced production and management forage crops. Students will gain experience with forage production and management through hands-on labs, field trips, and through real world in-the-field scenarios.

10-093-104

Applications of GIS in Agriculture

2 Credits. Course will offer students the ability to build skills relating to Agronomic Geographic Information System (GIS) and on farm applications. Students will be able to advance their digital farming skills by learning how to adapt to different seasonal variables, monitor the health of individual crops,

estimate yields from a given field, and maximize crop production. The course will have the opportunity for students to gain experience with new technology related to soil management, ag equipment, and unmanned aerial systems. Students will gain further experience through hands-on labs, field trips, and through real world in-the-field scenarios.

10-093-105

Nutrient Management & Precision Planning

3 Credits. Course will provide students with knowledge necessary to plan, apply, and manage plant nutrients while building an understanding of the regenerative principals of nutrient management. Students will gain a basic understanding of how Wisconsin's 590 standard is built and implemented for on-farm practices. The course will also introduce technology that aids in the guidance and implementation of nutrient application, management, and precision planning. Students will gain experience through hands-on labs, field trips, and through real world in-the-field scenarios. Pre-requisite: 10-006-116 Introduction to Soils

10-093-106

Crop Production & Management

3 Credits. Course will provide students with knowledge necessary to plan, produce, protect, harvest, and store grain and forage crops commonly produced in Wisconsin. Students will gain a basic understanding of the relationships involved with producing quality grain and forage for livestock production. The course will also introduce technology related to the advancement of the production and management of grain and forage crops. Students will gain experience with forage production and management through hands-on labs, field trips, and through real world in-the-field scenarios.

10-093-107

Introduction to Precision Ag Technologies

3 Credits. Students will study fundamental processes of the Global Positioning System (GPS) with emphasis on its application to agricultural production. Technical aspects of the GPS satellites, differential correction, and hardware will be covered. The specific applications of the technology in agronomy for navigation, mapping, soil management, variable rate technology (VRT), and yield monitoring will be discussed and demonstrated by the student. Student will gain exposure to technology cost, and potential economic benefit of technology application. Student will also be introduced to the operation of Geographic Information Systems (GIS).

10-093-108

Soil and Crop Protection Products

3 Credits. Students learn core principles of soil fertility and plant nutrition, focusing on nutrient needs for common regional crops. The course covers fertilizer, chemical, fungicide, and biological applications to improve crop health and yield. Students will plan and manage production based on nutrient needs and resources. Training includes interpreting

soil tests and making application recommendations. In-field activities reinforce soil fertility, crop nutrition, and product application concepts.

10-093-109

Pest ID & Mgt/Crop Scouting and Control

3 Credits. Students will develop skills in identifying and managing pests for common regional crops. They will learn pest control measures, proper use and safety, identification of insects, weeds, and diseases, and the importance of treatment timing. Precision management techniques, including the use of technology for targeted pest control, will also be covered. Additionally, students will explore both traditional and precision crop scouting methods to improve pest identification and treatment decisions.

10-093-110

Drone FAA Part 107 Training

1 Credit. This 8-week course offers comprehensive training to prepare students for obtaining the Federal Aviation Administration (FAA) Part 107 Remote Pilot Certificate. The course covers essential principles, regulations, and practical skills needed for the safe and legal operation of small, unmanned aircraft systems (sUAS) within the National Airspace System (NAS).

10-093-111

Agricultural Precision Planting

2 Credits. Students will acquire the knowledge and skills to optimize crop yield, resource efficiency, and sustainability through precision agronomy. Topics include crop physiology, soil management, seed selection, and the use of precision planting equipment. Students will learn to manage and analyze data from precision technologies to inform planting decisions and improve resource use. Hands-on experience with modern tools and techniques will be integrated into the curriculum. The course also explores future trends and emerging technologies in precision planting, preparing students for advancements in the field.

10-093-112

Agricultural Precision Harvesting

2 Credits. Students will learn comprehensive understanding of precision harvesting and its integration with agronomy principles. Students will explore crop monitoring and sensing technologies, precision harvesting equipment, yield monitoring and mapping, and data management systems. The course combines theoretical knowledge with hands-on skills to prepare students for careers in modern precision agronomy, focusing on optimizing harvest efficiency and decision-making through technology.

10-093-113

Agricultural Precision Applications

2 Credits. This course provides an in-depth exploration of advanced precision agronomy techniques, focusing on optimizing the application of fertilizers, chemicals, herbicides,

and fungicides. Students will learn the latest technologies for precise nutrient and chemical management to improve crop yield and reduce environmental impact. The course covers data management and analysis, enabling students to make informed decisions based on real-time field data. In-field practice will offer hands-on experience in applying precision techniques. There will be emphasis on environmental sustainability, ensuring efficient and responsible agricultural practices for long-term farm health.

10-093-114

Precision Electronic Adoptions

2 Credits. This introductory course provides students with a foundational understanding of precision electronics in agriculture, focusing on basic principles and applications in modern farming equipment. Students will learn about wire harness design, sensors, actuators, and the role of micro-controllers and programmable logic controllers (PLCs) in automating agricultural processes. The course introduces key communication protocols used in precision farming and provides an overview of system integration. Through hands-on labs and field exercises, students will develop basic troubleshooting skills and learn about the safe installation and maintenance of electronic systems.

10-093-115

Ag Data Collection, Analysis, and Mgmt

3 Credits. This course builds a foundation in data collection, analysis, and management for precision agronomy. Students learn to gather and interpret ag data to guide decisions on soil health, nutrients, and fertilizer use. The course covers managing large data sets and using emerging tools like sensors to boost crop performance. Field practicums offer hands-on experience applying data to real ag challenges. Emphasis is placed on environmental sustainability, teaching students to apply data-driven solutions while promoting responsible resource use.

10-093-116

Introduction to Soils

3 Credits. Course is designed to provide the student with fundamental knowledge of soil and soil composition. Students will study soil types, formation factors, physical properties, biological properties and basic soil chemistry. Units covering tillage, conservation, pH and soil management will also be included. Students will gain the skills required to interpret soil survey maps and recognize qualities of various soil types. The student will perform soil sampling, residue measurements, compaction assessments and soil loss determinations per crop rotation guidelines.

10-093-117

Remote Sensing & Precision Nutrient Planning

3 Credits. Students will acquire the knowledge to plan, apply, and manage plant nutrients while building an understanding of regenerative principles in nutrient management. Students will gain a basic understanding of Wisconsin's 590 standard and how it is implemented in on-farm practices. The course will also introduce technology for nutrient application, man-

agement, and precision planning, including the use of remote crop sensing and precision nutrient application techniques to optimize resource use and crop health. Hands-on labs, field trips, and real-world in-field scenarios will provide students with practical experience.

10-093-124

Pesticide Applicator Training

1 Credit. The learner will develop a strong understanding and basis of pest application training techniques, methods and standards used in the industry today. This class prepares students to take the Commercial Pesticide Applicator Certifying and Licensing exam category 1.1 Field and Vegetable Crops for the state of Wisconsin.

10-093-160

Plant Science

3 Credits. Provides fundamental knowledge of plant components and their functions. Topics include pollinating and propagating plants, germinating seeds, plant nutrients, and factors affecting photosynthesis, respiration, and transpiration. Participants will experience plant components and their functions through the completion of hands-on activities.

10-101-101

Accounting 1, Part 1

2 Credits. Students obtain a basic understanding of accounting principles and procedures. Emphasis will be given to journals, ledgers, accounts, terms, and systems used by accounting personnel.

10-101-102

Accounting 1, Part 2

2 Credits. Students will continue the study of introductory accounting. The area of accounting systems is studied, looking at more specific topics and how they relate to accounting principles. Pre-requisite: 10-101-101 Accounting 1, Part 1

10-101-111

Accounting 1

4 Credits. Students learn accounting concepts and principles in a logical step-by-step manner. Students will do extensive problem work. Students focus on accounting for both service and merchandising businesses.

10-101-112

Accounting 2

4 Credits. Students expand upon basic accounting concepts and principles developed in Accounting I and relate them to the accounting for notes receivable, fixed assets, investments, liabilities, partnerships, limited liability companies, and corporations. Students will learn to prepare the statement of cash flows and perform financial statement analysis. Pre-requisite: 10-101-102 Accounting 1, Part 2 or 10-101-111 Accounting 1

10-101-113

Accounting 3

4 Credits. Students study the three main financial statements in detail. Students review and expand upon generally accepted accounting principles as they apply to revenue recognition and current assets. Students perform extensive problem solving to provide a practical application of accounting concepts. Pre-requisite: 10-101-112 Accounting 2

10-101-114

Accounting 4

4 Credits. Students study the noncurrent asset, liability, and stockholders' equity sections of the balance sheet. Students complete a comprehensive practice set to further develop an understanding of financial accounting concepts. Pre-requisite: 10-101-112 Accounting 2

10-101-116

Cost Accounting

3 Credits. Students learn accounting principles associated with manufacturing, including job order, process, and standard costing. Also, students study special problem areas such as scrap, lost or gained units, joint products, and by-products. In addition, the students use spreadsheet software to prepare manufacturing statements and perform required calculations. Pre-requisite: 10-101-112 Accounting 2

10-101-117

Taxes 1

3 Credits. Students learn basic federal and state tax law as it relates to individuals, including learning to research technical topics and use tax resource materials. Students will apply their knowledge by preparing tax returns using both manual and computerized preparation methods.

10-101-118

Taxes 2

3 Credits. Students learn basic federal, state, and local tax law as it relates to corporations, partnerships, estates, trusts, and exempt organizations. Students will learn to apply their knowledge by preparing tax returns using both manual and computerized preparation methods.

10-101-121

Advanced Accounting Spreadsheets

3 Credits. Students will plan, create, format, and modify Microsoft Excel worksheets for accounting applications. Students will use the software to apply mathematical and statistical commands, apply functions, and create and modify pivot tables, and graphs. Co-requisite: 10-101-112 Accounting 2

10-101-121

Advanced Accounting Spreadsheets

3 Credits. Students will plan, create, format, and modify Microsoft Excel worksheets for accounting applications. Students will use the software to apply mathematical and statistical commands, apply functions, and create and modify

pivot tables, and graphs. Pre-requisite: 10-103-106 Beginning Microsoft Excel or 10-103-128 Beginning Microsoft Office

10-101-123

Payroll Applications

2 Credits. Students identify federal and state laws affecting payroll, and determine coverage for FICA, federal and state income tax, and unemployment taxes. Students complete payroll tax forms, journal entries, and a comprehensive practice set. Pre-requisite: 10-101-101 Accounting 1, Part 1 or 10-101-111 Accounting 1

10-101-124

Accounting Systems and Procedures

3 Credits. The learner will examine the systems development life cycle including systems principles and internal controls. They will then apply these principles and controls to various systems analysis, designs, and implementation projects. Pre-requisite: 10-101-112 Accounting 2 and 10-103-106 Beginning Microsoft Excel

10-101-125

Managerial Accounting

3 Credits. The learner will analyze financial performance, evaluate capital budget investments, compare capital structures, prepare a master budget, develop a working capital management strategy, evaluate long term financing alternatives, and analyze the effect of international exchange rates on financial decisions. Pre-requisite: 10-804-123 Math with Business Applications

10-101-127

QuickBooks

1 Credit. Students develop a basic understanding of a computerized accounting system while working with QuickBooks Pro accounting software. Students will set up service and merchandising businesses, record customer, vendor, inventory, general ledger, and payroll transactions, and generate financial reports. It is highly recommended that students have taken Accounting 1 Part 1 (10-101-101) or Accounting 1 (10-101-111) in order to be successful in this class.

10-101-130

Accounting Work Based Learning

1 Credit. Students will gain practical, hands-on experience in Accounting by applying the skills and knowledge developed through the Accounting program at an approved workplace site. Under the supervision of both an employer and instructor, students will engage in various accounting tasks. Students will demonstrate their ability to perform key accounting functions while maintaining professional behavior, effective communication, and positive interpersonal skills. Additionally, students will showcase their understanding of the program's Technical Skill Attainment (TSA) standards, ensuring their competency in the field. Pre/Co-requisite: 10-101-114 Accounting 4

10-101-131

Federal Income Tax

4 Credits. Students learn basic federal, state, and local tax law as it relates to individuals, corporations, partnerships, estates, trusts, and exempt organizations, including learning to research technical topics and use tax resource materials. Students will learn to apply their knowledge by preparing tax returns.

10-102-104

Principles of Finance

3 Credits. Students apply decision-making strategies such as short-term and long-term financing and investing, leverage, break-even analysis, and time value of money. Financial markets and institutions are discussed in length as well. The relationship between risk and return is emphasized throughout the course. Pre-requisite: 10-101-101 Accounting 1, Part 1 and 10-101-102 Accounting 1, Part 2 or 10-101-111 Accounting 1

10-102-105

Introduction to Business

3 Credits. Students gain an overview of the business enterprise in the American economy. Studies focus on the inter-relationships between business functions and the economy by examining such topics as ownership forms, marketing, management, the legal environment of business, and management information systems.

10-102-108

Risk Management

3 Credits. Students will be exposed to the process of managing risks faced by business firms and individuals. Students will use the risk management process in case studies to analyze and evaluate pure risks to minimize losses.

10-102-109

Business Law I

3 Credits. Students explore the United States legal system, apply common law contract principles to everyday business transactions, and the Uniform Commercial Code to the formation of sales contracts, transfer of title and risk, performance and product liability.

10-102-110

Business Law 2

3 Credits. Students learn legal principles applicable to agency and employment relations and explore the effect of government regulations on business enterprises; learn the basic legal concepts of secured transactions, bankruptcy, and alternatives to bankruptcy; and apply the Uniform Commercial Code to the issuance and transfer of negotiable instruments. Pre-requisite: 10-102-109 Business Law I

10-102-115

Business Management Strategies

3 Credits. Students explore the activities undertaken by the management and leadership of a business organization. Students will apply problem-solving and decision-making skills to situations that affect business operations. The course will focus on the integration of the functions of finance, marketing, operations, technology, and human relations in the process of managing a firm. Pre-requisite: 10-101-111 Accounting 1

10-102-125

Negotiable Instruments

1 Credit. Students apply Uniform Commercial Code to the issuance and transfer of negotiable instruments.

10-102-126

Basic Business Law

2 Credits. Students explore the United States legal system and focus on basic contract law. Students apply contract law principles to everyday situations.

10-102-129

Human Resources Management

3 Credits. Students will explore the people dimension of organizations; one of the most challenging aspects of management. Students will develop skills in the processes employed by human resource professionals to ensure employee's abilities are used effectively and efficiently to achieve an organization's goals. The impact of laws and of societal and business trends on human resource functions will be analyzed.

10-102-130

Management Principles

3 Credits. Students explore the challenges faced by the managers of organizations in today's competitive business environment. Students will examine managerial roles and skills as important factors in determining organizational performance. These factors include planning for the future by anticipating changes in the external environment, organizing people into groups, allocating resources to them and motivating them to attain organizational goals.

10-102-131

Developing a Business Plan

1 Credit. Every new business faces challenges. A good business plan provides an objective look at the big picture issues for the potential business venture. Students will complete a business plan for their business concept in this course. Students will evaluate their business concept and develop the marketing, operations, and financial components for this concept.

10-102-132

Operations Management

3 Credits. Students will apply decision-making techniques to ensure efficient and competitive management of business operations. Students will focus on the key operational activities of product development, process design and

management, and supply chain management. Course topics will include product design processes, quality, facility design and capacity planning, inventory control, project management, supply chain management, cost control, and customer service management. Pre-requisite: 10-102-105 Introduction to Business

10-102-133

Career Planning in Business

1 Credit. Students will develop strategies to secure employment and make career decisions. Topics include: career research, goal setting, preparation of employment-related correspondence, professional profile development, and effective employment interviewing skills.

10-102-134

Business Management Internship

1 Credit. Students will obtain practical, hands-on experience while applying skills developed in the Business Management program at an approved site with employer and instructor supervision. Professional behavior, good communication, and positive interpersonal skills will also be demonstrated. Students will also demonstrate knowledge of the program TSA's (Technical Skill Attainment).

10-102-135

Management Information Systems

3 Credits. This course examines how information systems support organizational operations and decision-making. Students explore strategic uses of technology, databases, decision support, e-commerce, artificial intelligence, systems development, infrastructure, security, and ethical and legal considerations. Practical skills with a widely used spreadsheet application are emphasized for data analysis and business problem-solving. Pre-requisite: 10-103-128 Microsoft Office

10-102-151

Personal Finance

1 Credit. This course will help students with the process of making informed financial decisions. Students will explore money management techniques, credit options, insurance, saving and investing, and retirement plans.

10-102-152

Data Analytics 1

3 Credits. In this course, the learner will learn the basic concepts of data analysis and how they are used to drive business processes. The learner will identify and retrieve relevant data sources, and to prepare data for analysis with pre-configured and custom tools. Upon completion of this course, the learner will be able to prepare data for further analysis to drive decision making for business. Pre/Co-requisite: 10-804-189 Introductory Statistics

10-102-153**Elicitation & Coll Techniques**

3 Credits. The learner will learn the ability to define stakeholders and use the stakeholder analysis to conduct elicitation activities accurately capturing information needs, documenting and confirming results. Facilitates meetings and communication plan to support ongoing collaboration.

10-102-154**Databases**

3 Credits. In this course, the learner will explore concepts, design, documentation, and implementation of various database systems, including proprietary and open source technologies. The learner will implement Structured Query Language (SQL) to store, retrieve, and manipulate data. The learner will create queries, normalize database structures, and create stored procedures. Upon completion of this course, the learner will be prepared to develop and maintain databases used in application development.

10-102-155**Business Intelligence and Visualization**

3 Credits. In this course, the learner will learn to organize, manage, and analyze very large data sets from various sources. The learner will use software tools to present complex data in visually meaningful representations that can be communicated to business stakeholders. Upon completion, the learner will learn how to transform raw data into meaningful information that will be utilized for data-driven decision making. Pre-requisite: 10-102-152 Data Analytics 1; Co-requisite: 10-102-157 Data Analytics 2

10-102-156**Ethics in Data Analytics**

3 Credits. In this course, the learner will discover the risks, challenges, and opportunities data presents to the greater good. It will cover the moral implications of concepts such as social marketing, fraud, risk management, and data privacy. Upon completion the learner will be able to evaluate risks and results of data utilization, anticipate the shifts and safeguards in the industry, and assess the company's rights and responsibilities in data collection and usage.

10-102-157**Data Analytics 2**

3 Credits. In this course, the learner will build upon the skills learned in Data Analytics 1. The learner will work with large data sets and organize that information for effective data analysis. The learner will utilize commercial data analysis software packages, and create custom computer programs to analyze data. Upon completion of the course, the learner will be able to perform analysis of relevant data with various software tools, and use the generated information to help make informed business decisions. Pre-requisite: 10-102-152 Data Analytics 1, Co-requisite: 10-102-155 Business Intelligence and Visualization

10-102-158**Business Analytics & Insights**

3 Credits. The learner will learn to prioritize and trace requirements, organize large amounts of data, understand and model requirements using various analysis techniques; verify, validate and communicate the requirements.

10-102-160**Software Applications**

3 Credits. The learner will learn to use BA software tools-Visio, SharePoint, OneNote, and advanced Excel involving scenarios and case studies.

10-102-161**Strategy Analysis & Evaluation**

3 Credits. The learner will identify and define business needs; understand business structure, strategy, and impact of work efforts; define the importance of vision, strategy, goals and objectives; and define solution scope. Effectively facilitate change management. Pre-requisite: 10-102-155 Business Intelligence and Visualization

10-102-162**Programming in Data Analytics**

3 Credits. In this course, the learner will investigate the fundamentals of computer programming using the Python and/or R programming language. The learner will examine data types, variables, conditional statements, looping, array structures, and structured programming techniques. Upon completion of the course, the learner will be able to use Python and/or R to apply problem-solving skills to create applications for delivery to various platforms.

10-102-163**Data Analytics Career Experience (Internship)**

2 Credits. Students will obtain practical, hands-on experience while applying skills developed in the Data Analytics program at an approved site with employer and instructor supervision. Professional behavior, good communication, and positive interpersonal skills will also be demonstrated.

10-103-101**Microsoft PowerPoint**

1 Credit. Students will be able to present their ideas more effectively and professionally using features of the PowerPoint program. Audience handouts, speaker notes and outlines will be developed along with an electronic slide show presentation. The student will learn to create, edit, and format presentations. Basic experience with Windows is assumed.

10-103-105**Beginning Microsoft Word**

1 Credit. This course is an introduction to Microsoft Word. Students will create, edit, and format documents while using the built-in proofing tools. Other topic areas covered include text, paragraph, & document formatting as well as working with graphics in documents. Basic experience with Windows is assumed.

10-103-106**Beginning Microsoft Excel**

1 Credit. This course is an introduction to Microsoft Excel. Students will learn the basic features to produce basic worksheets and charts. Other topic areas covered include formatting, formulas, built-in functions used to design functional worksheets to solve business problems. Basic experience with Windows is assumed.

10-103-111**Beginning Microsoft Access**

1 Credit. This course is an introduction to Microsoft Access. In the four assigned units, you will learn the purpose and business use for a database, database terminology, and how to create and work with Access tables, queries, forms, and reports. Basic experience with Windows is assumed.

10-103-117**Intermediate Microsoft Word**

1 Credit. This course introduces intermediate level features of Microsoft Word. Students will learn to create multi-page documents containing tables, charts, SmartArt images, and WordArt. Other topic areas covered include the use of headers, footers, styles & themes.

10-103-118**Intermediate Microsoft Excel**

1 Credit. This course introduces intermediate level features of Microsoft Excel. Students will learn to use relative & absolute reference formulas and functions, manage workbooks using multiple worksheets, create custom templates and use pivot tables effectively.

10-103-128**Beginning Microsoft Office**

1 Credit. This course is an introduction to Microsoft Word and Excel. Using Microsoft Word, students will create, edit, and format documents while using the built-in proofing tools. Other topic areas covered include text, paragraph, and document formatting, as well as working with graphics in documents. Using Microsoft Excel, students will learn the basic features to produce basic worksheets and charts. Other topic areas covered include formatting, formulas, built-in functions used to design functional worksheets to solve business problems. Basic experience with Windows is assumed.

10-103-129**Intermediate Microsoft Access**

1 Credit. Students will learn intermediate to advanced features of Microsoft Access. In the four units assigned, the student will work with multi-table, summary, and cross-tab queries. Calculated fields will be introduced as well as PivotTables and PivotCharts. Students will modify forms, import/export data and repair a database. Basic experience with Windows is assumed.

10-103-134**Introduction to Microsoft Publisher**

1 Credit. Students will learn the features of Microsoft Publisher. Skills in the use of this software will be developed through the use of numerous business related applications. Basic experience with Windows is assumed.

10-103-137**Advanced Microsoft Access**

1 Credit. Students develop skills using advanced features of Microsoft Access that include working with advanced report and form techniques and administering the database system.

10-103-139**Beginning Keyboarding Software**

1 Credit. Students will learn and practice correct alphabetic & numeric keyboarding techniques and build basic speed and accuracy while utilizing keyboarding software.

10-103-140**Windows 7**

1 Credit. Students will learn Microsoft Windows 7 concepts and terminology. Students learn how to use the mouse, resize and scroll windows, work with icons and groups, and use menus and dialog boxes. They also learn how to use My Computer and Windows Explorer.

10-104-105**Selling Principles**

3 Credits. Philosophy of personal selling is introduced through learning to understand the societal role of salespersons and the human behaviors of customers, as well as how to sell ideas, services, and products. Students prepare sales presentations and practice selling techniques.

10-104-130**Marketing Principles**

3 Credits. Students will use the marketing mix in developing marketing concepts. Global, relationships, ethics, customer value, productivity, and technology perspectives to marketing will be developed by the student.

10-105-110**Computer Applications**

1 Credit. At the end of this course, the student will be familiar with the use of a word processor, a spreadsheet, the Internet and email, and file management. The student will know the basics of each application and be able to create professional-looking documents. The student will be able to apply these applications to their field of study also.

10-107-189**IT Career Development**

1 Credit. Students will learn job seeking skills and practice appropriate work environment attitudes while projecting a professional image. Students will build a job interview portfolio, participate in mock interviews, and be required to research a particular job and company. Final versions of

resumes, cover letters, and follow-up letters will be required. Common interviewing and communication skills required for the IT professional will also be addressed.

10-107-191

IT Concepts

2 Credits. Learners will utilize a Raspberry Pi, an inexpensive credit card-sized single-board computer, to explore information systems, operating system management, GUI, and command-line interfaces, hardware components, and use of file systems, files and file attributes and data communications. Learners will also be introduced to the many career opportunities in the Information Technology profession which employs over 6 million individuals across a range of industries, from manufacturing, banking and finance, transportation, healthcare and education.

10-107-192

IT Career Development

2 Credits. Students will prepare final versions of employment-related documents including resumes, cover letters, follow-up letters, and job applications. Students will build an online career portfolio (LinkedIn) and will participate in mock interviews and job shadowing with an IT professional. Students will learn job seeking skills and practice appropriate work environment attitudes while projecting a professional image. Communication skills required for an IT professional will also be addressed.

10-109-101

Introduction to Tourism

3 Credits. Introduces new students to the broad spectrum of the leisure services industry. Typical career areas include food service, lodging, travel/tourism, and recreation. The course explores educational options and program career opportunities as well as historical and operational perspectives of the career areas mentioned.

10-109-102

Hospitality Professional Devel Seminar

1 Credit. Students will learn the challenges and opportunities in various careers in the hospitality and tourism industry.

10-109-103

Event Management

3 Credits. Students will learn to create, plan, organize and execute events related to the hospitality and tourism industry. Emphasis will be placed on events in the resort, food service and golf areas. The students will focus on design, internal management and post event evaluation of each event.

10-109-104

Hospitality Marketing

3 Credits. Students will learn to develop and analyze marketing strategies, sales techniques, promotional tools, and market research for the hospitality and tourism industry.

10-109-105

Hospitality Law

3 Credits. Students explore the legal liabilities of the hospitality and tourism industry and apply legal principles using case studies. Special consideration is given to legal issues in the culinary, resort and golf industries.

10-109-106

Hospitality Food Sanitation & Safety I

2 Credits. Students study the conditions which cause food contamination and spoilage, safe food handling techniques, and how to prevent accidents. Students use state and federal regulations, apply HACCP principles, and complete the Wisconsin Certified Food Manager exam.

10-109-107

Hospitality Food Sanitation & Safety II

1 Credit. Students use information gained from Hospitality Food Sanitation & Safety I to guide the lab sessions contained in this course. Conditions which cause food contamination and spoilage, safe food handling techniques, and how to prevent accidents are reviewed and applied in a "live" kitchen environment. Pre-requisite: 10-109-106 Hospitality Food Sanitation & Safety I

10-109-108

Hospitality Supervision

3 Credits. Students investigate procedures involved in hiring and supervising personnel including relevant laws, types of communication, training employees, goal setting and professional interactions. Special emphasis is given to the hospitality, tourism and golf industries.

10-109-109

Hospitality Event Management: A

3 Credits. Students apply the principles of food service management to an internship experience through classroom discussion and supervised on-the-job experience. Special attention is given to management applications in the hospitality and tourism industry. Pre-requisite: 10-316-165 Catering and Special Function Planning (I) and 10-317-104 Nutrition in Food Preparation

10-109-110

Hospitality Event Management: B

3 Credits. Students apply principles learned in first-year culinary courses to meet specific learning objectives working in the culinary profession with guidance and evaluation from an internships site supervisor and culinary arts instructor. Classroom focus is on the food preparation issues of hospitality and tourism industry. Pre-requisite: 10-109-107 Hospitality Food Sanitation & Safety II and 10-316-138 Cooking Principles and Equipment and 10-316-139 Quantity Prep: Garde-Manger and 10-316-140 Quantity Prep: Soups and Sauces and 10-316-141 Quantity Prep: Fruits and Vegetables and 10-316-142 Catering and Deli Production and Catering and 10-316-165 Special Function Planning and 10-317-104 Nutrition in Food Preparation

10-150-126**Premises Cabling Technician**

2 Credits. This course will introduce the learner to the knowledge and skills required in the installation of copper, fiber and wireless networks. An exploration of cabling types, termination techniques, design and testing will be conducted. Learners will practice using the tools and the skills required to terminate copper, fiber and wireless. At the completion of this course, the learner will complete the requirements for the CPCT certification with a written and hands-on examination.

10-150-128**Windows Server Administration**

3 Credits. Learners will focus on the core infrastructure of a Windows Client/Server environment using the latest Windows server technology. Learners will work with Active Directory User and Group management, Network Access and Data Security, Group Policy and Remote Access services. At the completion of this course, the learner will be introduced to the objectives of the Microsoft Certified Solutions Associate industry certification exam #70-411. Pre-requisite: 10-150-129 Introduction to Networks

10-150-129**Introduction to Networks**

2 Credits. Learners will install, operate, configure, secure and troubleshoot networks. This is an entry-level networking course that learners will explore the fundamentals of LAN and WAN technologies including routing, switching and wireless. Learners will work directly with Cisco routers and switches configuring IPv4 and IPv6 by implementing switched networks using VLANs, Access Control Lists (ACLs) and routing technologies.

10-150-132**Voice Over IP Administration**

2 Credits. Learners will be introduced to the protocols, terms and definitions of analog phone systems as well as Voice over IP (VOIP) networks. Learners will be configuring station call features, provisioning voice trunks, and establishing voicemail accounts. The learner will use the Cisco Unified Communications Manager platform while exploring the functionality of a voice over IP network. Pre-requisite: Introduction to Networks (10-150-129)

10-150-134**Windows Support**

1 Credit. This course will introduce the learner to a Microsoft Windows client-server environment including automated administrative tasks using PowerShell, ADDS account management, introduction to group policy, Windows deployment and remote administration tasks. Learners will demonstrate acquired skills in a simulated enterprise environment.

10-150-135**Windows Server Administration**

2 Credits. This course will focus on planning, implementing, and managing the core infrastructure of a Windows client-server environment using the latest Windows server technology. Learners will work with on-premises Active Directory and Azure IaaS (Azure AD), network access and data security, Group Policy and Remote Access services. At the completion of this course, the learner will demonstrate their skills by implementing a simulated enterprise environment. Pre-requisite: Windows Support (10-150-134) and Introduction to Networks (10-150-129)

10-150-136**Cloud Computing**

2 Credits. In this course, the learner will be introduced to cloud fluency exploring the latest cloud services available from providers such as Amazon, Google, and Microsoft. Learners will implement and manage a working compute and storage environment using the three cloud providers. At the completion of this course, the learner will demonstrate their skills by implementing cloud-based services for an enterprise environment. Pre-requisite: Windows Support (10-150-134)

10-150-154**Firewall/VPN Technologies**

2 Credits. Learners will participate in hands-on, career-oriented learning solutions with an emphasis on practical experience to help students develop specialized security skills to advance their careers. Learners will identify network threats and apply mitigation techniques like AAA, layer 2 policies, IDS/IPS, and virtual private networks. This course helps prepare students for entry-level security career opportunities. Pre-requisite: Cisco Networking and Security (10-151-103)

10-150-155**Virtualization Technologies**

3 Credits. In this hands-on course, the learner will build real-world skills using Proxmox VE, a powerful open-source virtualization platform. Learners will start by installing and configuring Proxmox VE, then dive into creating and managing both virtual machines and containers. As you progress, you'll explore how to set up storage solutions, configure networking, and implement backup strategies. Through guided labs and practical exercises, learners gain the confidence and experience needed to build and manage an enterprise-grade virtual environment. Pre-requisite: Cisco Networking and Security (10-151-103)

10-151-101**Introduction to Security**

1 Credit. Learners will explore the importance of the field of cybersecurity, data confidentiality, and best practices for using the Internet and social media. The learner will have hands-on experience with cyber trends, threats and staying safe in cyberspace, protecting personal and company data.

Learners will also explore career opportunities in the field of cybersecurity.

10-151-102

Cybersecurity Essentials

2 Credits. Learners will explore the characteristics and tactics used by cyber criminals in today's connected world. Learners will then delve into the technologies, products, and procedures cybersecurity professionals use to combat cybercrime. Hands-on labs exploring the topics of this course will be used throughout the course. Pre-requisite: Introduction to Networks (10-150-129)

10-151-103

Cisco Networking and Security

3 Credits. Learners in this course are exposed to the foundational knowledge required to respond to network security threats through various threat mitigation measures. Learners will configure and monitor various network devices in order to harden to protect data assets and network systems from attack. Pre-requisite: Introduction to Networks (10-150-129)

10-151-104

Linux Administration and Security

3 Credits. Learners will gain an understanding of the fundamentals of the Linux operating system, system architecture, installation, command line and file system. This course implements a "practice as you read" approach to learning. Each learner has hands-on access to a Linux virtual machine to practice, explore and trial Linux command line concepts while reading course content. This course is aligned to the LPI LPIC-1 101 certification exam.

10-151-105

Wireless Networking and Security

2 Credits. The learner will be introduced to the design, implementation, operation, security and troubleshooting of wireless networking. The course will provide a comprehensive overview of technologies, security, and best practices. The learner will conduct hands-on installations and configurations of Wireless Client Adapters, Routers, Access Points, Repeaters, Bridges and other wireless devices using multiple-vendor equipment. Pre-requisite: Introduction to Networks (10-150-129)

10-151-106

Scripting for Security

2 Credits. Learners will start out with hands-on labs working with Linux, Python programming and Bash scripting. The learner will then focus on developing scripts that could be used for security testing, data analysis or other routine tasks for a cybersecurity professional. Pre-requisite: Linux Administration and Security (10-151-104)

10-151-107

Cybersecurity Operations

3 Credits. Learners in this course are exposed to all of the foundational knowledge required to detect, analyze, and escalate basic cybersecurity threats using common open-source tools. The learner will complete hands-on labs to develop skills related to security monitoring, host-based analysis, network intrusion analysis, and security policies and procedures. This course aligns with the Cisco Certified CyberOps Associate (CBROPS) certification. Pre-requisite: Introduction to Networks (10-150-129)

10-151-108

Database Security Administration

3 Credits. Learners will be able to implement robust database security practices to protect against illegitimate activity, malicious threats and attacks. The learner will gain hands-on experience with SQL and NoSQL database administration, including understanding database architecture and performing fundamental operations. Learners will identify common vulnerabilities in relational and non-relational databases, simulate exploitation techniques, and apply advanced security measures to safeguard sensitive data. By the end of the course, learners will confidently design, secure, and monitor databases, ensuring their integrity, confidentiality, and compliance with best practices. Pre-requisite: Linux Administration and Security (10-151-104)

10-151-109

Advanced Security Capstone

3 Credits. Learners will be implementing various advanced secured wired and wireless systems with Intra/Internet services on both Windows and Linux operating systems. At the completion of this course, the learners will have an enterprise-level secured network infrastructure connected directly to the Internet. Pre-requisite: Cisco Networking and Security (10-151-103)

10-151-110

Network Defense & Forensics

3 Credits. Learners are introduced to the NIST NICE Cyber-Security Workforce Framework, which is focused on the identification, analysis, and mitigation of threats to internal IT systems or networks. Learners will conduct hands-on labs that enforce knowledge within computer network defense analysis, incident response, vulnerability assessment and management, and computer network defense infrastructure support. Pre-requisite: Cybersecurity Essentials (10-151-102)

10-151-111

Offensive Security Operations

1 Credit. Learners are armed with the crucial knowledge they need to intelligently discuss and evaluate, at a basic level, the security environment for a given business context. Learners will perform threat modeling activities to evaluate physical, communication, and application security vulnerabilities and recommend threat mitigation measures. A CTF-like IoT Security vulnerability challenge with 10 missions will be

the final assessment. Pre-requisite: Cybersecurity Essentials (10-151-102)

10-151-112

Foundational Threat Hunting

3 Credits. The learner will develop practical skills needed to detect and respond to real-world cyber threats. You will explore core threat hunting concepts and learn how organizations identify, track, and neutralize adversaries. You will dive into the threat actor landscape, gaining insight into the tactics of ransomware groups and Advanced Persistent Threats (APTs). Through hands-on activities, you'll learn to spot early warning signs using network and endpoint Indicators of Compromise (IoCs) and apply proven methodologies to proactively hunt threats before they cause damage. Cybersecurity Operations (10-151-107)

10-151-113

Operating System Security

2 Credits. Covers the basics of securing Linux and Microsoft Windows workstations and servers. Students start by identifying the risks and vulnerabilities associated with Windows and then utilize a variety of tools and techniques to decrease risks arising from these vulnerabilities. Includes considerable hands-on learning activities implementing operating system hardening and application security following the NIST Framework. Pre-requisite: Introduction to Security (10-151-101)

10-152-116

HTML & CSS

3 Credits. This course introduces students to the foundational languages of modern web development: HTML for structuring content and CSS for designing the visual presentation of web pages. Through hands-on coding, students will build visually engaging, standards-compliant websites while learning key concepts, including semantic markup, responsive layout techniques, and basic design principles. The course also explores how emerging AI tools can assist in writing, reviewing, and optimizing front-end code.

10-152-117

Python Programming

2 Credits. Learners will explore Python programming by writing and executing scripts. They'll cover basic syntax, variables, data types, loops, and conditionals. The course includes working with functions, lists, dictionaries, and file handling to manipulate data. Through hands-on exercises, learners will practice debugging, writing clean code, and solving problems. They'll also be introduced to object-oriented programming and complete small projects. By the end, learners will have a solid foundation in Python and the confidence to write basic programs and scripts.

10-152-118

HTML, CSS & JavaScript

3 Credits. The learner will unlock the power of web development with a solid foundation in HTML, CSS, and JavaScript. In this course, the learner will grasp the essential skills to create dynamic and interactive web applications. You'll start

by learning how to display content on the web using HTML. Then, dive into CSS to style your web pages and make them visually appealing. Finally, master JavaScript to bring interactivity to your websites. By the end of this course, you'll have the confidence and knowledge to start building web applications.

10-152-119

Introduction to Algorithms

3 Credits. Learners will be introduced to algorithms covering design and analysis of algorithms, including concepts, data structures and problem-solving techniques. Learners will explore the relationship between algorithms and programming using basic performance measures and analysis techniques to solve problems. Pre-requisite: Python Programming (10-152-117)

10-152-120

SQL Programming

3 Credits. Learners will explore database models by using MySQL. Learners are introduced to fundamental database concepts, including tables, relationships, and normalization. They will also work with basic SQL syntax and understand the rules for constructing valid SQL statements. Learners will write queries, create tables, set primary and foreign keys, populate tables, manipulate data, and generate reports. They will also explore join types, stored procedures, functions, and essential database administration SQL statements. Demonstrations and hands-on practice reinforce the fundamental concepts of this course.

10-152-121

Advanced Python Programming

3 Credits. Learners will deepen their Python skills with object-oriented design, decorators, generators, and efficient coding. They'll use algorithms and libraries like Pandas, NumPy, and Matplotlib for analysis and visualization. Topics include web scraping with urllib2 and BeautifulSoup, text processing with regex, and handling data from text files, CSVs, and databases. Learners will integrate Python with Raspberry Pi for input/output control and use Git, pydoc, and pylint for versioning, documentation, and code quality. The course also covers benchmarking, profiling, memory optimization, and testing. Pre-requisite: Python Programming (10-152-117)

10-152-122

C# Programming

3 Credits. Learners will cover C# programming concepts and statements starting with basic class/object terminology. Investigate data types, methods and behaviors, iteration, arrays, lists and collections, Windows (GUI) programming, event programming, inheritance, file IO, exception handling and Database access methods. Basic debugging techniques will also be introduced. Pre-requisite: Python Programming (10-152-117)

10-152-123**SQL Programming Advanced**

3 Credits. Learners will unlock the power of SQL and NoSQL to extract valuable insights from large datasets, perform sophisticated data manipulations, and generate comprehensive reports. They'll explore advanced techniques for data analysis, learn about data optimization strategies, and develop a strong foundation for seamless collaboration with data teams. Additional topics include database transformations, exploring both relational and non-relational database technologies (including graph databases), data modeling, data structures, emerging database trends, database security, and the intersection of databases with artificial intelligence. Pre-requisite: SQL Programming (10-152-120)

10-152-124**Introduction to Docker and Containers**

2 Credits. Learners will actively engage with Docker and containerization technology by creating, deploying, and managing containers. They will gain hands-on experience in using Docker for application development, from setting up Docker environments to building custom images and running containerized applications. Through practical exercises, learners will explore how containerization enhances the development process, and they will develop the skills needed to effectively use Docker in real-world scenarios.

10-152-125**ASP.NET Programming**

3 Credits. Learners will employ server-side web programming and tackle common web development tasks using ASP.NET architecture to create and maintain a dynamic Web site. Microsoft's Visual Studio will be used by the learner to use basic web controls, manage and authenticate users effectively, implement state management techniques, and develop robust, database-driven web applications. By the end of this course, the learner will have the skills to create dynamic and secure web solutions using ASP.NET. Pre-requisite: HTML, CSS & JavaScript (10-152-118)

10-152-126**Cloud for Developers**

3 Credits. The learner will work with popular cloud providers, such as AWS, Google and Azure, to build scalable and highly available applications using the providers recommended tools and best practices. The learner will gain experience with cloud-native applications, developer tools such as source code management systems, managed services, and next-generation databases. Pre-requisite: Introduction to Docker and Containers (10-152-124)

10-152-127**AI-Driven Systems Analysis**

3 Credits. Learners will apply systems analysis and design steps, including investigations, setting objectives, cost/benefit analysis, and data collection. They'll develop specs for outputs, inputs, files, procedures, and controls. The course explores how AI can process information, support decisions, and solve business problems. Learners will build AI agents aligned with business goals and infrastructure. AI integration will be examined from technical and strategic perspectives to optimize systems for efficiency and innovation. Pre-requisite: C# Programming (10-152-122)

10-152-128**C++ Programming**

2 Credits. Learners will dive into the world of C++ programming and build a foundation in this versatile language. In this course, learners will work with input and output of data in console applications, understand variables and data types, and master decision-making with if-else and switch-case constructs. By the end of this course, the learner will have the essential skills to tackle C++ programming with confidence. Pre-requisite: Python Programming (10-152-117)

10-152-129**Agile Practices**

3 Credits. Learners in this capstone course will utilize multiple Web technologies to build a complete and functional web site in a group setting to simulate real-world development. Project design, Software Development Life Cycle (SDLC), version control and management methodologies will be introduced to expose students to skills needed to ensure software quality and users requirements. The learners will use various tools in a scenario-based lab environment including Agile, Atlassian Jira, Scrum and GIT. Pre-requisite: ASP.NET Programming (10-152-125) and AI-Driven Systems Analysis (10-152-127)

10-152-130**Software Career Experience**

2 Credits. Learners will gain hands-on experience under the mentorship of experienced developers in various environments such as: Internship, Field Research, Service Learning, Simulations, Capstones, or Industry Related. Pre-requisite: AI-Driven Systems Analysis (10-152-127)

10-152-131**Machine Learning and AI**

3 Credits. Learners will explore the most basic algorithm as a basis for your learning and understanding of machine learning: decision trees. Learners will explore common, pre-built machine learning algorithms to perform basic image processing and classification. Using real-world cases and sample data sets, the learner will examine processes, chart your expectations, review the results, and measure the effectiveness of the machine's techniques. Pre-requisite: Advanced Python Programming (10-152-121)

10-152-132**Mobile Development**

2 Credits. Learners will explore mobile app development by diving into programming technologies, design principles, and development techniques specific to mobile applications. The learner will access device capabilities, adhere to industry standards, and navigate different operating systems. Learners will gain hands-on experience using an OS Software Development Kit (SDK) and be able to create basic applications for mobile devices by the end of the course. Pre-requisite: Advanced Python Programming (10-152-121)

10-152-133**Enterprise Data Systems & API Architecture**

3 Credits. Learners will design and implement secure, scalable enterprise data systems using modern database communication protocols, microservices architectures, and API-driven data exchanges. Through hands-on projects, students will build and deploy secure APIs, work with large-scale data formats like XML and JSON, and integrate AI-driven automation into data workflows. Learners will also explore cloud-based data solutions, containerization, and best practices for securing enterprise data transactions. By the end of the course, students will have the skills to architect and manage secure data systems that power modern enterprise applications. Pre-requisite: Advanced Python Programming (10-152-121)

10-154-101**Comp TIA A+ Essentials**

2 Credits. Students will develop required skills and techniques that meet the competencies in the six domains required to pass the industry certification exam. Students will learn a technical understanding of computer technology and hardware, troubleshooting/repair/maintenance, operating systems, networking, security, and operational procedures including communication skills and professionalism required of all entry-level IT professionals.

10-154-106**Comp TIA A+ Practical Applications**

2 Credits. Students will increase their skills and knowledge in which troubleshooting and tools must be applied to resolve problems. Students will develop a working understanding of hardware, operating systems, networking, and security concepts and apply it to problem-solving situations.

10-154-108**IT Help Desk Practicum**

2 Credits. Students will demonstrate acquired skills by participating in the student-run help desk. Students will be required to schedule jobs, document steps taken and services performed, and open and close tickets under the supervision of an IT instructor. Co-requisite: TIA A+ Practical Applications (10-154-106)

10-154-108**IT Help Desk Practicum**

2 Credits. Students will demonstrate acquired skills by participating in the student-run help desk. Students will be required to schedule jobs, document steps taken and services performed, and open and close tickets under the supervision of an IT instructor. Pre-requisite: TIA A+ Essentials (10-154-101)

10-154-109**IT Help Desk Fundamentals**

1 Credit. This course will explore fundamental IT help desk responsibilities, including project management concepts, software installation, basic networking, performing root cause analysis when troubleshooting and demonstrate effective documentation techniques using ticket management software. Important soft skills, including customer service skills relevant to the help desk professional will also be practiced and assessed. Learners will demonstrate acquired skills by participating in the student-run help desk under the supervision of an IT instructor or other campus supervisor. Pre-requisite: Comp TIA A+ Essentials (10-154-101) or Comp TIA A+ Practical Applications (10-154-106)) and IT Concepts (10-107-191)

10-154-109**IT Help Desk Fundamentals**

1 Credit. This course will explore fundamental IT help desk responsibilities, including project management concepts, software installation, basic networking, performing root cause analysis when troubleshooting and demonstrate effective documentation techniques using ticket management software. Important soft skills, including customer service skills relevant to the help desk professional will also be practiced and assessed. Learners will demonstrate acquired skills by participating in the student-run help desk under the supervision of an IT instructor or other campus supervisor. Pre-requisite: Comp TIA A+ Essentials (10-154-101) or Comp TIA A+ Practical Applications (10-154-106)) and IT Concepts (10-107-191)

10-182-103**Purchasing**

3 Credits. Learners will examine the role of purchasing within an organization and explore basic purchasing activities. Learners will develop an evaluation for the purchasing function to include analyzing ordering quantities, selecting and evaluating suppliers, and monitoring cost. Students will be introduced to negotiating skills, strategies, tools, and techniques, and will develop their own negotiating skills as they explore topics in communication, strategy, perception, bias, leverage, ethics, global negotiations, and managing difficult negotiations.

10-182-104**Inventory Management**

3 Credits. Learners will develop an effective plan to minimize the cost of inventory while still meeting customer demand. Learners will create a foundation for managing materials and labor in an organization to include creating bills of materials and routings and understanding inventory records and transactions. Learners will examine the benefits and challenges of forecasting and its use in accurate scheduling of customer demand. Learners will develop an effective plan to manage the flow of materials and labor through the production process.

10-182-107**Logistics**

3 Credits. Learners will develop an understanding of logistics within a supply chain. Learners will examine the methods and requirements of transporting materials in a supply chain, and determine how to properly apply warehousing to a supply chain to reduce cost and improve efficiency.

10-182-108**Global Supply Chain Management**

3 Credits. Learners will explore strategies and gain insight into developing an international supply chain. Learners will examine the process of identifying, qualifying, and negotiating the purchase of goods from global sources, and consider factors that affect global transportation of both imports and exports.

10-182-109**Service Operations Management**

3 Credits. Learners will examine the unique requirements of providing an intangible product and formulate strategies to cultivate customer satisfaction. Learners will design delivery systems that meet the needs of service based customers and provide the required level of customer service.

10-182-137**Technology in the Supply Chain**

3 Credits. Learners will investigate technology advances that have improved the efficiency of supply chain management and review the processes that make up a business enterprise and examine the advantages and disadvantages of implementing Enterprise Resource Planning (ERP) software. Learners will develop process modeling strategies to improve existing supply chains.

10-182-138**Supply Chain Capstone**

2 Credits. Students will obtain practical, hands-on experience while applying skills developed in the Supply Chain Management program at an approved site with employer and instructor supervision. Professional behavior, good communication, and positive interpersonal skills will also be demonstrated.

Students will also demonstrated knowledge of the program TSA's (Technical Skill Attainment). Purchasing (10-182-103) and Inventory Management (10-182-104) and Logistics (10-182-107)

10-196-119**Managerial Budgeting & Finance**

3 Credits. The learner applies the skills and tools necessary to make sound financial decisions and recommendations. Each learner will demonstrate the application of financial planning, budgeting, cost measures, activity-based costing, and control measures.

10-196-156**Project Management 1**

1 Credit. In this first Project Management course students will examine the role of a project manager. In addition, the students will look at the different aspects of project planning, including software for managing a project and the different planning phases required for a successful implementation.

10-196-208**Personal Leadership**

3 Credits. Students will learn about time management and personal planning, emotional intelligence, effective communication, assertiveness and stress management related to the challenges of a supervisor.

10-196-209**Team Building and Problem Solving**

3 Credits. Students will learn the benefits and challenges of group work, necessary roles in a team, stages of team development, meeting facilitation, different approaches to problem solving, consensus, data acquisition, analysis, developing alternative solutions, implementation and evaluation.

10-196-210**Legal Issues for Supervisors**

3 Credits. Students will learn legal practices of recruiting, interviewing, hiring, selection, evaluation/promotion, employee discipline, firing, EEOC and nondiscrimination, employee privacy, workplace harassment, FMLA, ADA and unions.

10-196-211**Workplace Innovations**

3 Credits. Student will implement the use of inventive thinking techniques and innovative methods to improve work processes in multiple workplace environments; research and analyze the use of technology in businesses to promote innovation in the workplace; develop an innovative, entrepreneurial, and entrepreneurial mindset.

10-196-212**Training and Talent Development**

3 Credits. Students will become acquainted with the principles and methods for training employees on the job. Experience practical training exercises that include the develop-

ment of learning objectives and receipt of feedback through a training evaluation. Spend time organizing the training function within an organization and career planning for individual employees.

10-196-213

Workplace Safety

3 Credits. Students will learn safety awareness, federal/state/local compliance, inspections, risk analysis, workplace violence, substance abuse, health hazards, first aid, CPR, fire and electrical safety, and emergency preparedness.

10-196-214

Leading Strategically

3 Credits. Students will explore the organizational interrelationships that exist between strategy, structure, and the behavior of various size companies.

10-196-215

Project Management Fundamentals

3 Credits. Students will become familiar with the role of project management, developing a project proposal, demonstration of relevant software, working with project teams, sequencing tasks, charting progress, dealing with variations, budgets and resources, implementation, and assessment.

10-196-216

Leading Change

3 Credits. Students will learn to resolve challenges and handle the personnel dynamics in facilitating change within an organization.

10-196-217

Leadership Development Career Experience

2 Credits. Students will obtain practical, hands on experience while applying skills developed in the Leadership Development program with instruction supervision. Professional behavior, good communication, and positive interpersonal skills will also be demonstrated. Students will also demonstrate knowledge of program TSA's (Technical Skills Attainment). Pre-requisite: Leading Strategically (10-196-214)

10-196-300

Foundations and Non-profits

3 Credits. Students will gain an introduction into concepts of nonprofit organizations as well as foundation types and their purposes and operations. Students will explore the differences between nonprofits and for-profit organizations as well as the general purpose and principles of foundations.

10-196-301

Current Trends in Non-profits

3 Credits. An introductory course aimed at providing an overview of the essential functions of a nonprofit organization. In this course students are introduced to the fundamentals of effective mission and vision statements, strategic planning, operations management, Board development, and budgeting.

10-196-302

Non-profit Strategic Planning

3 Credits. Analyze current business and development strategies, recognize trends, develop vision and mission statements, identify funding benchmarks, measure business and development efforts against benchmarks, recommend future directions and strategies and stakeholders (with input from program, donors, potential donors). By the end of this course, students will have an opportunity to develop a mock strategic plan for a nonprofit organization.

10-196-303

Non-profit Leadership

3 Credits. Students will learn about strategies that leaders use specifically to lead those who work in nonprofit organizations. This will include leading volunteers and effectively leading organizations where the mission is not to increase stakeholder wealth or to create a profit, but rather the strategy and mission is to provide a community service or to be socially

10-196-304

Board Relations and Volunteer Management

3 Credits. A dynamic course that focuses on developing and engaging a cohesive and strategic board of directors. Topics include defining the role of the board, strengthening the working relationship between staff members and board members, and organizing and facilitating effective meetings, publishing meeting minutes, and agreeing on tasks/next steps.

10-196-305

Meeting and Event Planning

3 Credits. Students will explore different aspects of planning professional meetings and events, including scheduling, budgeting, marketing, venues, agendas, meeting and event invitations and RSVPs, speakers and presenters, facilitating the meeting, etc. Students will use scheduling software such as Microsoft Outlook and other software programs to assist with planning meetings and events. By the end of this course, students will have an opportunity to develop draft meeting agendas and a mock event plan.

10-196-306

Nonprofit Branding and Marketing

3 Credits. Students will explore: What is nonprofit marketing, inbound marketing for nonprofits, creating a nonprofit marketing plan on a limited budget, and marketing strategies for nonprofit organizations as well as budget considerations for marketing proposals. Students will also explore guerilla marketing techniques, e.g. press releases, blog posts, social media, through the creation of a marketing plan. By the end of this course, students will have an opportunity to develop a mock marketing plan for a nonprofit organization.

10-196-307**Nonprofit Revenue Generation 1**

3 Credits. In this dynamic class you will learn how to: apply fundamental fundraising principles and ethics to your organization strategy, develop a gift agreement(s) for scholarship, designated, field of interest funds, and analyze the planning and execution of a capital campaign to improve your campaigns, and plan and prepare key sections of a grant application.

10-196-308**Community & Social Service in Nonprofits**

3 Credits. Many nonprofit organizations use a Customer Relationship Management (CRM) software to manage the relationship between nonprofits and constituents, such as donors, volunteers, and members. In this dynamic class you will learn the basics on identifying the best tool to reach your organization's goals.

10-196-309**Nonprofit Revenue Generation 2**

3 Credits. Build revenue streams for your nonprofit organization. They are essential to accomplish the organization mission and provide consistent operations' support. Discover how to increase revenue from your current activities. Develop strategies for building new ones. Know how to effectively set prices or fees. Understand the 20% that generates 80% of your revenue--the necessity to identify and secure lead gifts as a foundation for any campaign. These are basic concepts that will yield greater results.

10-196-310**Nonprofit Leadership Career Experience**

3 Credits. Students can select any hands on experience related to Internship or Field Research relating to the Nonprofit Leadership Development program with instruction supervision. Students will develop skills in the foundations of leadership, with professional behavior, good communication, and positive interpersonal skills will also demonstrated. Students will also demonstrate knowledge of program TSA's (Technical Skills Attainment). Pre-requisite: Non-profit Leadership (10-196-303)

10-196-311**Nonprofit Financial Tools for Decisions**

3 Credits. The learner will explore relevant reporting tools that lead to enhanced decision-making and precise results. Students will utilize budgeting and financial reports for planning and identification of key performance indicators.

10-201-101**Design Fundamentals**

3 Credits. In this course the student will examine the field of graphic design and interpret the fundamentals of graphic design. Students will use the fundamentals of design by completing research, constructing layouts, creating a theme board, designing a poster, and creating a web app design.

This course will provide students with the building blocks in applying the principles of design to develop creative and balanced work.

10-201-110**Pre-Press Management**

3 Credits. Students develop skills and techniques that are necessary to perform before a project is printed to ensure the project's highest quality. Students will learn proofreading skills and techniques and how to apply color management. Students will learn and use Adobe Acrobat 9.0 to perform pre-press operations. Pre-requisite: Illustrator (10-201-134) and InDesign (10-201-135)

10-201-124**Portfolio Introduction**

1 Credit. This course is designed to help students develop effective strategies for portfolio presentations to prospective employers and clients. Through critical analysis, thoughtful selection, and visual communication, students will learn how to evaluate and showcase their work. The course includes the creation of a resume, cover letter, and professional portfolio, which will serve as a foundation for building high-impact designs that demonstrate their growing expertise.

10-201-128**Internship/Field Study**

3 Credits. This internship provides students with hands-on, real-world experience in a graphic and/or web design environment. Students will work directly in the field, gaining practical skills and exposure to tasks commonly encountered by entry-level web and graphic designers. Through the completion of 216 working hours, students will engage in project-based work, collaborate with industry professionals, and develop a deeper understanding of the demands and expectations of the design industry. Pre-requisite: HTML & CSS (10-152-116) and Illustrator (10-201-134) and InDesign (10-201-135) and Typography (10-201-138); Co-requisite: Web Page Design 2 (10-201-140)

10-201-129**Graphic and Web Design Projects**

3 Credits. This is a project-based course where students will apply marketing concepts to brand a product or service across various mediums. Students will develop a consistent brand for a product or service that is carried through on various design projects: logo, business card, product guide, packaging, and mobile app. The students will participate in a final presentation where they pitch their ideas and prototypes to a fictitious development team. Pre-requisite: Design Fundamentals (10-201-101) and Illustrator (10-201-134) and InDesign (10-201-135)

10-201-133**Photoshop**

3 Credits. This course is designed to teach students the essential tools and techniques of Adobe Photoshop, a leading software in digital image editing. Students will explore fundamental concepts such as layer management, image retouching, color correction, and creative composition. Through hands-on projects and structured exercises, students will build proficiency in photo manipulation, text effects, working with vector shapes, improving image quality, and preparing images for print and web mediums.

10-201-134**Illustrator**

3 Credits. This course prepares the student to use Adobe's standard vector graphics software to create digital illustrations. The course will cover the basics of illustration as it relates to the digital environment. Students will turn out professional-looking graphics for web or print with Adobe Illustrator software. Through practical exercises, students become fluent in the premier program for line art, logos, vector graphics and quick page layout.

10-201-135**InDesign**

3 Credits. This course prepares the student to use Adobe's standard page layout software. Using Adobe InDesign, students will turn out professional-looking layouts for both print and web. Through practical exercises, students become fluent in constructing multi-page documents, master pages and digital publishing as well as tricks and time efficient techniques to keep work clean and professional. Pre-requisites: Design Fundamentals (10-201-101) and Photoshop (10-201-133)

10-201-136**Multimedia Concepts**

3 Credits. This course teaches students how to create various multimedia elements including video, audio, and basic animation. Students will learn how to incorporate these elements into various forms of digital mediums.

10-201-137**Color Theory**

3 Credits. Students will explore the fundamental components of color. Lectures and exercises introduce color theory, psychology, perception, value, harmonies and trends. Students will use a wide range of tools, techniques and media on a variety of assignments to learn how one can communicate with color.

10-201-138**Typography**

3 Credits. This course prepares the learner to learn the basics of identifying, choosing, and using typefaces. Students will classify type by families, interpret choices for legibility and readability and compare best practices for using type.

This course will prepare students to design type and develop creative documents using type. This is a living plan. Topics may change as the tenor of this class commands.

10-201-139**Web Page Design 1**

3 Credits. This course builds on foundational HTML and CSS skills by introducing students to front-end design techniques and professional web development workflows. Students apply design principles, explore the fundamentals of UI/UX design, and develop interactive prototypes. They create responsive, compliant websites using modern CSS techniques. Students will utilize industry-standard source code editors to develop client-focused websites. The course also explores how emerging AI tools can assist in writing, reviewing, and optimizing front-end code. Pre-requisite: HTML & CSS (10-152-116) and Photoshop (10-201-133)

10-201-140**Web Page Design 2**

3 Credits. This advanced course builds on skills developed in Web Page Design 1 by introducing students to responsive front-end frameworks and deeper design practices. Students gain hands-on experience using modern CSS frameworks to build responsive, accessible websites with a mobile-first approach. Industry-standard source code editors will be used throughout the course. Students refine their UI/UX design skills, enhance interactive prototypes, and apply responsive design best practices. A key focus of this course is the development of a professional portfolio website that showcases their front-end development and design capabilities. Pre-requisite: Web Page Design 1 (10-201-139)

10-201-141**Professional Portfolio Assessment**

2 Credits. Students will complete professional portfolios containing examples of their work that demonstrate competency as a graphic/web designer. Resumes will be completed and students will practice job search and interview skills. Students will role-play in a mock interview utilizing their portfolios and demonstrating competence of what was learned. Pre-requisite: Illustrator (10-201-134) and InDesign (10-201-135); Co-requisite: Web Page Design 2 (10-201-140)

10-201-142**Digital Marketing for Graphic Designers**

3 Credits. This course focuses on how graphic designers can achieve marketing objectives using digital technologies and media. Students will gain an appreciation for current mobile marketing strategies and the importance of being adaptable with communication techniques. Students will learn how to develop relevant, appropriate content based on different media outlets. A focus on marketing analytics is included in this course.

10-201-142**Digital Marketing for Graphic Designers**

3 Credits. This course focuses on how graphic designers can achieve marketing objectives using digital technologies and media. Students will gain an appreciation for current mobile marketing strategies and the importance of being adaptable with communication techniques. Students will learn how to develop relevant, appropriate content based on different media outlets. A focus on marketing analytics is included in this course.

10-201-143**Beginning WordPress**

2 Credits. WordPress is one of the most popular and fastest growing open source content management systems available today. This course provides an introduction to WordPress for building and managing websites. Students will learn the differences between WordPress.com and WordPress.org. In addition, students will learn how to install WordPress, use a theme and plugins, and how to add and manage content. Pre-requisite: HTML & CSS (10-152-116)

10-201-144**Freelancing for Creatives**

1 Credit. Nearly every type of design service needed by most businesses could be provided by a freelancer, including marketing, publicity, advertising, web programming, and other creative works performed by a graphic designer. In this course students will learn what it takes to be a freelancer: finding work, setting budgets, creating contracts, and other money-related issues.

10-201-145**Motion Design**

3 Credits. This course teaches students how to use Adobe After Effects and other software to create various multimedia elements including video, audio, and basic animation. Students will create projects and learn how to incorporate these elements into various forms of digital mediums. Pre-requisite: Illustrator (10-201-134)

10-201-146**Digital Video Concepts**

3 Credits. This course teaches students about fundamental video concepts and editing, while reinforcing motion design and digital marketing. Focus will be on industry standard editing software to create video using production editing techniques in lighting, sound, and effects. Students will gain hands-on experience with video editing and post-production techniques, enabling them to create professional quality videos. Pre-requisite: Motion Design (10-201-145)

10-203-131**Introduction to Digital Photography**

3 Credits. Students will explore the operations of a digital camera and explore photography as an artform. Students will develop habits for professional work, and create a wide

range of images for portfolio-quality production. Students will develop knowledge and understanding of the digital camera, the fundamentals to stronger photographs, and basic photo editing. This is a living plan. Topics may change as the tenor of this class commands.

10-307-108**ECE: Early Language & Literacy**

3 Credits. This course explores strategies to encourage the development of early language and literacy knowledge and skill building in children birth to 8 years of age. Learners will investigate the components of literacy including; literacy and a source of enjoyment, vocabulary and oral language, phonological awareness, knowledge of print, letters and words, comprehensions and an understanding of books and other texts. Theories and philosophies regarding children's language and literacy development will be addressed. Dual language learning will be examined within the context of developmentally appropriate practices. Assessment tools for early language and literacy acquisition will be reviewed.

10-307-110**ECE: Social Studies, Art, & Music**

3 Credits. This course will focus on beginning level curriculum development in the specific integrated content areas of social studies, art, music and movement (SSAMM).

10-307-112**ECE: STEM**

3 Credits. This course will focus on beginning level curriculum development in the specific integrated content areas of science, technology, engineering, and mathematics.

10-307-148**ECE: Foundations of ECE**

3 Credits. Students are introduced to the early childhood profession. Students integrate strategies that support diversity and anti-bias perspectives; investigate the history of early childhood education; summarize types of early childhood education settings; identify the components of a quality early childhood education program; summarize responsibilities of early childhood education professionals; explore early childhood curriculum models.

10-307-151**ECE: Infant & Toddler Dev**

3 Credits. Students study infant and toddler development as it applies to an early childhood education setting. Students 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 heredity and the environment; examine research-based models; examine culturally and developmentally appropriate environments for infants and toddlers.

10-307-160**ECE: Field Experience 1**

3 Credits. This 3-credit introductory field experience course, introduces the foundations of early childhood education under guided supervision of a mentor teacher in an early childhood setting, working with children birth through age 8. This course meets the requirements for the Wisconsin Model Early Learning Standards 18-hour training.

10-307-167**ECE: Hlth Safety & Nutrition**

3 Credits. Students examine the topics of health, safety, and nutrition within the context of the early childhood educational setting. Students 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.

10-307-170**ECE: Field Experience 2**

3 Credits. This 3-credit intermediate field experience course includes assisting the mentor teacher in carrying out classroom routines and implementing developmentally appropriate learning experiences that promote child development and learning through play for children birth to age 8.

10-307-179**ECE: Child Development**

3 Credits. Students examine child development within the context of the early childhood education setting. Students 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.

10-307-187**ECE: Children with Differing Abilities**

3 Credits. Students explore inclusive early childhood education for children with differing abilities. They apply anti-bias strategies, legal/ethical standards (ADA, IDEA), and differentiate typical vs. exceptional development. Students analyze physical, cognitive, medical, communication, and behavioral differences; use IEPs/IFSPs; adapt curriculum; collaborate with families and professionals; and connect with community resources.

10-307-188**ECE: Guiding Child Behavior**

3 Credits. Students examine positive strategies to guide children's behavior in the early childhood education setting. Students 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.

10-307-190**ECE: Field Experience 3**

3 Credits. This 3-credit advanced field experience course focuses on supporting young children's development birth to age 8 through observation, assessment, and implementation of developmentally appropriate teaching strategies.

10-307-195**ECE: Family & Community Rel**

3 Credits. Students examine the role of relationships with family and community in early childhood education. Students 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.

10-307-210**ECE: Field Experience 4**

3 Credits. This final 3-credit pre-professional field experience course focuses on demonstrating a comprehensive understanding of children birth to age 8, and families. An emphasis is on practicing the lead teacher role to design, implement and evaluate a connected unit of learning experiences.

10-325-101**Golf Course Operations**

3 Credits. Students tee time operation, rules of golf, terminology, licenses and certification, strategic and operational planning, golf associations, course/club membership / ownership's, and policies and procedures within a golfing facility.

10-325-102**Career and Leadership Development**

2 Credits. Course emphasis is placed on business organizational structures within the golf industry, career planning, goal setting, leadership, and job seeking skills.

10-325-103**Pro Shop Management**

3 Credits. Students study policies and procedures for inventory control systems, work schedules, sales and service, product lines, pricing strategies, vendors and suppliers, quality control issues, tournament operations and programs, golf cart operations, teaching programs, and practice range operations.

10-325-104**Club Financial Management**

3 Credits. Students study budgeting, banking, cash control procedures, the accounting cycle, financial reports, payroll procedures, labor costs, depreciation expense, and financial controls.

10-325-106**Golf Course Internship I-Inside Operations**

3 Credits. Students are placed at golf courses throughout the state where they complete their first internship focused on inside operations. They assist the general manager as assigned with food and beverage management, record keeping, pro shop management, promotion and marketing, and computers.

10-325-107**Soils, Conservation, and Fertility**

3 Credits. Students study the establishment, modification, and maintenance of northern turf grasses. They learn about irrigation systems, drainage needs, and soil tests. They study weather-related issues, diseases, insects, pesticide application, and appropriate chemicals.

10-325-108**Tournament Promotions**

2 Credits. Students work in cooperation with a local golf course to apply promotion, marketing, and business principles to the development of plans and implementation of a group golf tournament program or outing.

10-325-109**Integrated Turf Management**

3 Credits. Students study the establishment, modification, and maintenance of northern turf grasses. They learn about irrigation systems, drainage needs, and soil tests. They study weather-related issues, diseases, insects, pesticide application, and appropriate chemicals. Students study integrated pest management strategies (IPM). Pre-requisite: Turf Grass Horticulture (10-325-127)

10-325-110**Golf Course Design and Renovation**

2 Credits. Students learn maintenance procedures for non-turf areas, bunkers, and ornamental plantings. They study the protection of environmentally sensitive areas, the management of water hazards, and the care of trees. Students also learn the safety issues with golf design and appropriate renovation techniques / procedures.

10-325-112**Golf Course Internship II-Outside Operations**

3 Credits. At the conclusion of their on-campus course work, students are placed at golf courses throughout the state where they complete their second internship focused on outside operations. They study hazard communication and irrigation programs, develop fertilizer and cross-training

programs, evaluate Integrated Pest Management practices, and facilities maintenance.

10-325-113**Golf Course Equipment Repair**

3 Credits. Students study safe operating procedures, basic repairs, and maintenance practices to develop their understanding of the principles behind the operation of turf management and recreational equipment.

10-325-114**Techniques for Teaching Golf**

2 Credits. Students study the principles and techniques involved in teaching people the rules and etiquette of golf as well as the fundamentals and mechanics of the golf swing.

10-325-118**Golf Course Irrigation Systems**

3 Credits. Students gain knowledge about irrigation systems for golf courses. Students learn how to effectively manage the irrigation systems. Students also learn about calibration, design, installation, repair, diagnostics, water efficiency, rates and frequency, water quality, disease and pest control, trace elements, water sampling, minerals deposits, effluent wastewater handling, and pump house design and maintenance.

10-325-124**Player Development 1**

2 Credits. Students learn skills needed to help them pass the PGA players ability test. The course will concentrate on players putting, chipping and full swing. The use of modern teaching tools and swing analysis equipment will be provided. Students have hands-on lessons with PGA instructors and create their own learning portfolio.

10-325-127**Turf Grass Horticulture**

3 Credits. Biological principles of growing horticultural crops with an emphasis toward turfgrass- including anatomy, reproduction, light, temperature, water, nutrition, and growth and development. Laboratory exercises emphasize environmental factors and permit detailed observation of plant growth.

10-325-128**Spring Internship: Clubhouse**

1 Credit. Course will focus on tournament and league organization/prep including complete entry forms, rules of competition, checklist, entry fee, prize payouts, and financial breakdowns. Students will learn multi-day tournament set up as well as league play.

10-325-129**Summer Internship: Clubhouse**

1 Credit. This class is designed to complement the work experience a student will receive during a summer internship: The student will report on Tournament activities worked. The student will Shadow/Report Food and Beverage Director

as well as teaching Professional. The Student will report on staffing levels and show mastery of point of sale equipment.

10-325-130

Fall Internship: Clubhouse

1 Credit. In this course students will recap the summer experience and connect the important relationship between revenue and expense and how the customer service experience plays a vital role in a club's success.

10-325-131

Spring Internship: Maintenance

1 Credit. This course is designed to help prepare the student for a summer internship by introducing them to an Integrated Pest Management plan, Turf types found on their internship site, and equipment used on the internship site.

10-325-132

Summer Internship: Maintenance

1 Credit. During this course Students will be exposed to the hands on maintenance of an operational golf course. The students will focus on and report back on the following areas of the club's maintenance operation: staff scheduling, chemical & fertilization programs, equipment needs/repairs/costs, irrigation schedules, and the club's overall integrated pest management program.

10-325-133

Fall Internship: Maintenance

1 Credit. In this course the student will recap their experience at the golf facility as well as complete the experience with a winterization procedure where necessary. The student will analyze the Chemical and Fertilizer program performance as well as the irrigation schedule. The student will report on rounds played and their relationship to the maintenance practices. The student will analyze equipment needs and repair cost associated with the facility.

10-410-101

Construction Fundamentals

3 Credits. Develop the knowledge skills process and understanding of site plans, footings and foundations, floor plans, elevations, below-grade piping, above-grade piping, isometric piping diagrams, schedules and details, electrical floor plans, lighting, ventilating, and air conditioning. OSHA standards are covered.

10-449-160

Industrial Safety Practices & Career Dev

1 Credit. Students will gain an understanding of the OSHA regulations governing safety in the workplace. Students will also be introduced to the ASME safe rigging practices to be applied to rigging applications in the field. Students discover employment strategies designed to assist in securing employment. The course will help develop an awareness of personal and academic skills as they relate to the job seeking process.

10-481-101

Solar Photovoltaic Technology

3 Credits. Examines the scientific principles, engineering design, and economic analysis of solar photovoltaic systems. Complete a site assessment, specify hardware components, and model economic performance for a solar PV system. This course can be applied as an elective for several STEM degree programs at SWTC and four-year universities, particularly those with program emphases in sustainability and renewable energy.

10-481-102

Introduction to Renewable Energy

3 Credits. An overview of various renewable energy technologies and sustainable design practices and their current applications. Emphasis is placed on policies, renewable energy production, green products and jobs.

10-481-103

Intro to Energy Management

3 Credits. Introduces the basic concepts of energy, utility systems and utility rate structures; defines the need for energy management as an integral part of society at all levels. The course will present the various opportunities available to energy management students

10-481-104

Lighting Fundamentals

3 Credits. Light sources, luminaires, lighting controls, manufacturer lamp and ballast specifications, lighting power density, lighting-HVAC interactions, retrofit opportunities, cost savings analysis and lighting codes/regulations. Students will critically evaluate lighting systems, luminaires and associated components. Understand and perform various types of lighting calculations. Pre-requisite: Intro to Energy Management (10-481-103)

10-481-105

Energy Control Strategies

3 Credits. Building system control concepts and devices; including electric and digital controls, emphasis is placed on identifying and understanding control strategies related to energy using systems and methods to estimate energy savings.

10-481-106

Commercial HVACR Analysis

3 Credits. Identify commercial HVAC system types and the general energy use impact of each type. Calculations of system equipment efficiencies will be used to determine EER, SEER, AFUE, COP, combination and seasonal efficiency in boilers, balance point partial efficiency.

10-481-107

Energy Accounting

3 Credits. In this course, students will review energy units, data gathering for energy accounting utility rates and sched-

ules, energy data organization, adjusted baselines, cost avoidance, load factor, data analysis, data presentation, and use of utility energy accounting software.

10-481-108

Energy Modeling

3 Credits. This course will teach the student how to use "Manual J" from ACCA, REScheck, and REMrate. Students will develop the skills to do residential heating and cooling heat loads. Students will calculate heat loss and also losses or gains due to infiltration, sun loads and internal gains. Additionally, the students will begin to investigate energy consumption associated with lighting, appliances and plug loads.

10-481-109

Sustainable Energy Mngt Career Experience

2 Credits. Students will obtain practical, hands-on experience while applying skills developed in the Sustainable Energy Management program at an approved site with employer and instructor supervision. Professional behavior, good communication, and positive interpersonal skills will also be demonstrated.

10-501-101

Medical Terminology

3 Credits. This course focuses on the component parts of medical terms: prefixes, suffixes and word roots. Students practice formation, analysis and reconstruction of terms. Emphasis on spelling, definition and pronunciation. Introduction to operative, diagnostic, therapeutic and symptomatic terminology of all body systems, as well as systemic and surgical terminology.

10-501-107

Digital Literacy for Healthcare

2 Credits. Provides an introduction to basic computer functions and applications utilized in contemporary healthcare settings. Students are introduced to the hardware and software components of modern computer systems and the application of computers in the workplace. Emphasizes the use of common software packages, operating systems, file management, word processing, spreadsheet, database, Internet, and electronic mail.

10-501-153

Body Structure and Function

3 Credits. The learner will become familiarized with the body structures, the functions, and examine the interrelationship between structure and function.

10-503-100

Firefighting Principles

4 Credits. This course will provide the student an understanding of the principles of firefighting and fire department operations. It includes fire behavior, use of personal protective equipment, fire attack, and extinguishing methods.

10-503-101

Hazardous Material Awareness and Operations

2 Credits. This course will provide the student with the necessary training to operate at awareness and operational level for hazardous materials response in emergency situations.

10-504-101

Introduction to Criminal Justice Studies

3 Credits. Learners will distinguish roles and functions of Wisconsin, differentiate roles and functions of federal, state, and local agencies; determine modern police functions and policies; identify the societal role of law enforcement officers; identify policies required by law; defend the importance of agency policies; distinguish "ministerial" and "discretionary" duties; identify characteristics of a good decision maker; describe professionalism, ethics, and moral standards related to a professional career; practice behavior that embodies the law enforcement code of ethics; incorporate ethical decision making strategies; enhance an officer's critical thinking and problem solving skills.

10-504-102

Constitutional Law Application

3 Credits. Learners will diagram the structure of the criminal justice system, identify applicability of constitutional rules; identify situations where an officer may use reasonable suspicion to contact a subject; identify the elements of a lawful arrest; identify search-related activities where the 4th amendment is not applicable; identify requirements pertaining to search warrants; analyze situations where an officer may conduct a warrantless search; compare the requirements for conducting routine searches with those for searching disabled persons and strip searches, identify the requirements of the laws governing confessions and statements; analyze evidence admissibility requirements in court.

10-504-103

Criminal Law Studies

3 Credits. Learners will identify basic concepts of criminal law; analyze facts, circumstances, and situations and determine which, if any, crimes against persons have been committed; analyze facts, circumstances, and situations and determine which, if any, crimes against property have been committed; and analyze facts, circumstances, and situations and determine which, if any, crimes involving drugs, alcohol or other criminal activity have been committed.

10-504-107

Criminal Investigation Application

3 Credits. The student will describe the role evidence plays in criminal investigations and prosecutions. Students will apply the steps for processing crime scene and apply appropriate strategies to locate, handle, and package evidentiary items. Students will explore the unique investigative considerations for a wide variety of crimes ranging from property crimes to crimes against persons. Students will practice investigative techniques and strategies for a variety of crime examples to successfully aid in the investigation and prosecution of criminal cases.

10-504-111**Criminology**

3 Credits. Students identify what constitutes a crime and how to classify crimes. They identify criminals and differentiate between accidental and premeditated. They recognize certain abnormal human behavior leading to criminal activity and study cases that demonstrate classic symptoms. Students identify common motives behind criminal activity. They examine various methods and degrees of deterring criminal activities.

10-504-112**Criminal Evidence**

3 Credits. Students recognize and appreciate the legal process and procedures involved in developing a case. Students explore the history and necessity for having legal guidelines. Students practice collecting a variety of evidence, including: trace, biological, fingerprint, and impression evidence, and prepare a case for court.

10-504-119**Introduction to Corrections**

3 Credits. The theories, philosophies, and practices of corrections will be examined. The history and current trends will be used to analyze the differences between correctional options.

10-504-120**Homeland Security/Terrorism**

3 Credits. Students will discuss the United States Department of Homeland Security, and its mission will be investigated. Students analyze the use of chemical, biological, radiological, nuclear and explosive devices, and the use of these weapons of mass destruction. Discussion on the importance and basic elements of a planned response, methods used to prevent the importation of weapons of mass destruction into the US and learn what is being done and what can be done to prevent another large-scale terrorist incident in the US. Learn the Incident Command System required by National Incident Management System as well as the National Emergency Response System.

10-504-126**Communication Principles for Emergency Services**

3 Credits. Students will discuss the role of communication in a public safety setting and how to apply specific communication skills and the strategies in a variety of situations. Students will learn how to write wide variety reports, how to testify in legal proceedings, how to conduct a wide-range of interviews, how to interact with persons in crisis, and how to engage a variety of communication techniques, including de-escalation.

10-504-127**Emergency Response and Intervention**

3 Credits. Students will explore various unique challenges facing law enforcement officers operating in the criminal

justice system. Specifically, students will examine contemporary issues surrounding tactical response options, active shooter response, hostage situations, mass panic and civil disorders, public health and pandemic response, natural disaster, and hazardous materials response. Students will examine the role of law enforcement professionals within the greater emergency management spectrum as it relates to the incident command structure.

10-504-128**Criminal Justice Internship**

3 Credits. The Criminal Justice Internship is designed to provide a student with the opportunity to conduct career exploration through a Cooperative Field Experience with a Criminal Justice Agency. The (3) Credit field experience is a minimum of (216) hours and can be served with any criminal justice agency to include: law enforcement, corrections, probation/parole, child protective services, social work, substance abuse treatment/counseling, or private security.

10-504-129**Criminal Evidence**

2 Credits. Students recognize and appreciate the legal process and procedures involved in developing a case. They explore the history and necessity for having legal guidelines. Students practice collecting a variety of evidence including: trace, biological, fingerprint, and impression, and prepare a case for court.

10-504-134**Emergency Telecommunicator**

2 Credits. Based on standards, guidelines, and best practices, we will discuss issues relevant to one and two person communication centers and provide tips and recommendations on how to be a better call taker and dispatcher. Topics covered will be telecommunication essentials, roles, and responsibilities; call management; proper call classification and coding; legal considerations; and dispatch stress.

10-504-135**Law Enforcement Academy Prep**

3 Credits. This course is designed to prepare students for the Wisconsin Law Enforcement Academy. The course is composed of three different distinct units related to the law enforcement career field. The first unit of the course will focus on preparing students for the physical fitness requirements of the law enforcement academy, as well as the fitness demands of the law enforcement field. The second unit of the course will focus on firearms safety and marksmanship development to prepare students for the Wisconsin Law Enforcement Handgun Qualification. The third unit of the course will focus on basic concepts involved in various common law enforcement calls for service.

10-504-152**Security Operations**

3 Credits. Students will explore the various topics related to the security field. Such exploration will include reviewing security roles in our society; exploring the essential functions of security operations; discussing the critical functions of security management; understanding the various security applications and challenges; and examining future trends and challenges related to the security fields. In this course, students will also have the opportunity to apply various methods in practical exercises.

10-504-153**Report Writing for Emergency Services**

3 Credits. The learner will explain the context of report writing, take effective field notes, organize information in reports, write narratives, describe what information should be included in certain types of reports, prepare for court, describe how to be an effective witness, and testify as a witness in court.

10-504-154**Community Policing in a Diverse Society**

3 Credits. Learners will explore key insights and information relevant to professionals engaged in contacts with a variety of cultures, physical or mental conditions. Identify principles, techniques and behaviors that promote community service and effective interaction in a diverse society. Recognize and respond to people with mental illness through effective utilization of community resources. Identify differences in policing techniques in a variety of environments, while being able to recognize and adapt quickly in order to solve a problem situation. Apply effective communication principles, decision-making, and problem solving. Implement principles of crime prevention and community support.

10-504-154**Community Policing in a Diverse Society**

3 Credits. Learners will explore key insights and information relevant to professionals engaged in contacts with a variety of cultures, physical or mental conditions. Identify principles, techniques and behaviors that promote community service and effective interaction in a diverse society. Recognize and respond to people with mental illness through effective utilization of community resources. Identify differences in policing techniques in a variety of environments, while being able to recognize and adapt quickly in order to solve a problem situation. Apply effective communication principles, decision-making, and problem solving. Implement principles of crime prevention and community support.

10-504-155**Community Service Field Experience**

2 Credits. The student learner will develop and complete a meaningful community service project. During this project, the student will create community partnerships that foster a sense of social responsibility, and will potentially expose

the student to diversity and multiculturalism. At the same time the student will develop life-long skills, community and professional partnerships while gaining real world communication and employment skills.

10-504-156**Community Service Field Experience**

3 Credits. In this course, the student learner will develop and complete a meaningful community service project. During this project, the student will create community partnerships that foster a sense of social responsibility, and will potentially expose the student to diversity and multiculturalism. At the same time the student will develop life-long skills, community and professional partnerships while gaining real world communication and employment skills.

10-504-157**Public Safety Agency Administration**

3 Credits. Students will learn basic administrative concepts that are necessary for the management and operation of a public safety agency, to include: leadership and supervision styles, legal issues, human resources and labor relations, planning, scheduling, and budgeting. Students will explore additional concepts involving individual leadership styles and development.

10-504-160**Basic Introduction to Policing**

2 Credits. This is a basic overview of basic criminal justice systems. This course includes the Phase I material of Academy Orientation, Fundamentals of Criminal Justice, Ethics, Cultural Competency, Agency Policy, and Professional Communication. Pre-requisite: Acceptance into the 720 Law Enforcement Academy

10-504-160**Basic Introduction to Policing**

2 Credits. This is a basic overview of basic criminal justice systems. This course includes the Phase I material of Academy Orientation, Fundamentals of Criminal Justice, Ethics, Cultural Competency, Agency Policy, Officer Wellness, and Professional Communication. Note: Acceptance into the 720 Law Enforcement Academy

10-504-161**Basic Police Response**

2 Credits. This is a basic overview of patrol responses in law enforcement. It includes the Phase I courses of Critical Thinking and Decision Making, Basic Response, Radio Procedures, Traffic Law Enforcement, First Aid/CPR/AED, and Integration Exercises. Note: Acceptance into the 720 Law Enforcement Academy

10-504-162**Basic Police Tactics**

2 Credits. This is a basic overview of police tactics. It includes the Phase I courses of Fundamentals of Firearms,

Vehicle Contacts I, Introduction to TraCS, DAAT, Integration Exercises, 4 hours of Written Exams, and Physical Readiness. Note: Acceptance into the 720 Law Enforcement Academy

10-504-163

Basic Police Investigations

2 Credits. This is a basic overview of police investigations. It includes the Phase I courses of Constitutional Law I, Crimes I, Interviews, and Report Writing. Note: Acceptance into the 720 Law Enforcement Academy

10-504-164

Intermediate Police Tactics

3 Credits. This course builds on the basic overview of tactics and to an advanced level. It includes the Phase II courses of DAAT, Firearms II, and TECCLEO part I. Note: Successful completion of Phase I of the Law Enforcement Academy

10-504-165

Intermediate Police Traffic Response

3 Credits. Intermediate Police Traffic Response is part of the embedded Wisconsin Department of Justice Certification Track Law Enforcement Academy (720 Hours). Note: Successful completion of Phase I of the Law Enforcement Academy. In the course, the learner will complete EVOC; vehicle contacts 2 (16 hours); integration exercises (20 hours); phase 2 written examination (4 hours); and additional associate degree academic rigor (10 hours).

10-504-166

Intermediate Police Investigations

4 Credits. Basic Introduction to Policing is part of the embedded Wisconsin Department of Justice Certification Track Law Enforcement Academy (720 Hours). Note: Successful completion of Phase I of the Law Enforcement Academy. In the course, the learner will complete: professional communications (12 hours); tactical response (24 hours); constitutional law 2 (12 hours); physical evidence collection (4 hours); TECC for LEO (6 hours); crisis management (20 hours); and physical fitness (14 hours).

10-504-167

Advanced Police Traffic Response

4 Credits. This course is a covers the complexity of law enforcement traffic and emergency encounters. It includes the Phase III courses of Traffic Law-Radar, Traffic Crash, OWI/SFST, HAZMAT, ICS, Cultural Competence II, Ethics II part 1, Officer Wellness, 4 hours of Written Exam, and Integration Exercises. Note: Successful completion of Phase II of the Law Enforcement Academy.

10-504-168

Advanced Police Investigations

3 Credits. This course is a covers the complexity of law enforcement investigations. It includes the Phase III courses Ethics II part 2, Interrogations, Testifying in Court, Crimes II, Evidence, Domestic, Juvenile Law, Victims, Sexual Assault,

Child Maltreatment, Physical Readiness, and Report Writing. Note: Successful completion of Phase II of the Law Enforcement Academy

10-504-169

Academy Scenario Assessment

2 Credits. Students participate in prescribed complex scenarios to assess their ability to perform as a law enforcement officer in Wisconsin. Students will complete the Fitness Assessment and additional material. Note: Successful completion of Phase III of the Law Enforcement Academy.

10-504-170

United States Court Systems

3 Credits. An exploration of United States Court Systems to include discussions on legal traditions and philosophies, types and functions of various courts, roles within the court process, and the progression of a case through the court system.

10-504-171

Juvenile Justice Applications

3 Credits. An examination of the Juvenile Justice System to include the history, purpose and function of the juvenile justice system; the causes of juvenile delinquency; the unique process of the juvenile justice system compared to the adult system; and crimes against children investigations.

10-508-101

Dental Health Safety

1 Credit. Prepares dental auxiliary students to respond proactively to dental emergencies, control infection, prevent disease, adhere to OSHA Standards, and safely manage hazardous materials. Students also take patient vital signs and collect patient medical/dental histories. This course is a WTCS aligned course required in both the Dental Hygienist and Dental Assisting programs.

10-508-103

Dental Radiography

2 Credits. Prepares dental auxiliary students to operate radiographic equipment and expose bitewing, periapical, extra oral, and occlusal images. Emphasis is placed on protection against x-ray hazards. Students also produce, mount, and evaluate dental images for diagnostic value. This course also provides the background in radiographic theory required for students to make informed decisions and adjustments.

10-508-113

Dental Materials

2 Credits. Prepares dental auxiliary students to handle and prepare dental materials such as liners, bases, cements, amalgam, resin restorative materials, gypsum products, and impression materials. They also learn to take alginate impressions on manikins and clean removable appliances.

10-510-114**IV Therapy**

1 Credit. Students develop knowledge and skills in the basic concepts of IV therapy, guidelines, regulatory issues and management of I.V. related complications. Students gain proficiency with such skills as venipuncture, blood administration, medication administration, and insertion of venous access devices. Prerequisite: LPN, first year nursing program completion, EMT, or other persons as designated by job role.

10-510-140**Nutrition**

3 Credits. Learners examine and use basic nutrition principles in planning and evaluating preconception, pregnancy, lactation, and infant nutrition. They practice conducting routine nutrition screening, evaluate the impact of food safety, and promote healthy diets. Learners adhere to the MANA core competencies for basic midwifery practices as it relates to basic nutrition practices

10-510-146**Well Woman Gynecology**

3 Credits. The learner will meet competencies set forth in the care of the well woman from childbearing through menopause; to include history and physical exams, methods of contraception, infertility, unplanned/unwanted pregnancy, human sexuality, and STDs. Pre-requisite: 10510-146 Pre-Req for Well Woman Gynecology Antepartum Theory (10-510-160) and Antepartum Lab (10-510-161)

10-510-146**Well Woman Gynecology**

3 Credits. The learner will meet competencies set forth in the care of the well woman from childbearing through menopause; to include history and physical exams, methods of contraception, infertility, unplanned/unwanted pregnancy, human sexuality, and STDs. Pre-requisite: 10510-146 Pre-Req for Well Woman Gynecology Antepartum Theory (10-510-160) and Antepartum Lab (10-510-161)

10-510-148**Midwife Clinic Lab I**

1 Credit. The learner will review and discuss their clinical experience and provide a formal case study presentation with analysis and critical thinking for positive client outcome. Pre-requisite: Antepartum Theory (10-510-160) or Antepartum Lab (10-510-161)

10-510-149**Professional Issues in Midwifery**

2 Credits. The learner will prepare for a professional career. Legal and ethical aspects of the profession, opportunities and trends, and professional issues will be covered.

10-510-150**OB/Medication Management**

1 Credit. The learner will define the relationship of the midwife and healthcare partners, conditions which require referral and transfer to physician care, and the midwife's role and responsibility to client. Co-requisite: Intrapartum (10-510-164) and Postpartum (10-510-165) and Neonate (10-510-166)

10-510-152**Midwife Clinic Lab II**

2 Credits. The learner will use critical thinking and problem solving skills utilizing case presentation and analysis using the learner's clinical experiences. The learner will provide input into discussion on ethics, professional considerations, and current practice standards as relates to midwife practice. Pre-requisite: Midwife Clinic Lab I (10-510-148) and Midwife Clinic 5 (10-510-168)

10-510-153**Applied Pharmacology**

2 Credits. The learner will classify medications into correct drug categories and apply basic pharmacology principles. The learner will apply basic pharmacodynamics to identify common medications, medication preparation, and administration of medications used by the major body systems.

10-510-154**Midwife Research**

1 Credit. The learner will gain an introductory understanding to midwifery and medical research by becoming research aware, and gaining a basic ability to read, evaluate, and interpret papers from various evidence sources including both research paradigms and the many approaches incorporated within them.

10-510-155**Introduction to Midwifery Practice**

2 Credits. The learner will become familiar with the history and development of the CPM, basic principles of midwifery practice with an emphasis on basic healthcare and counseling skills using the Midwifery Model of Care, childbirth education for the consumer, diversity issues, basic terminology, and professional communication skills.

10-510-156**Midwife Science Lab**

1 Credit. The learner will become familiar with basic theory and performance of beginning essential health care skills necessary to care for the woman during the childbearing year.

10-510-157**Physical Exam for the Midwife**

2 Credits. The learner will become familiar with the needed theory and skills to perform a complete physical exam using an in-depth system approach.

10-510-158**Introduction to Midwife Clinic**

1 Credit. The learner will prepare to observe, interact, and analyze maternity services in a variety of clinical settings within classroom and community interaction. The learner will participate in attendance of various childbirth education classes, breastfeeding support meetings, and exploration of public health services.

10-510-159**Midwife Clinic 1**

1 Credit. The learner will observe and interact within a clinical setting with a focus on introduction to Midwifery practice and basic general skills. The learner will progress from observation to beginning performance in the clinical application of general basic skills. Credit for Prior Learning Option: Credential Notes: Current Certified Professional Midwife (CPM) certification. Prerequisites: Introduction to Midwife Clinic (10-510-158), Midwife Science Lab (10-510-156), and Physical Exam for the Midwife (10-510-157)

10-510-160**Antepartum Theory**

4 Credits. Antepartum provides an in-depth study of client care through the antepartum including nutrition, establishing pregnancy, the management and support of both psychological and physiological changes in pregnancy. The course includes issues of complications during pregnancy, genetics, embryology, fetology, lab and diagnostic tests. Pre-requisite: Introduction to Midwifery Practice (10-510-155) and Midwife Science Lab (10-510-156) and Physical Exam for the Midwife (10-510-157) and Introduction to Midwife Clinic (10-510-158)

10-510-161**Antepartum Lab**

1 Credit. The learner will become familiar with the theory and performance of essential health care skills necessary during the Antepartum period of pregnancy. Co-requisite: Antepartum Theory (10-510-160)

10-510-162**Midwife Clinic 2**

1 Credit. Births: 7; Prenatal Exams: 10; Initial Prenatal Exams: 2; Newborn Exams: 7; Postpartum Visits: 3—all as an assistant under supervision. The learner will develop beginning critical thinking skills for the antepartum client with a focus on counseling and education. The learner will perform in the clinical application of skills and theory for the client during the antepartum, intrapartum and postpartum periods of pregnancy using the Midwives Model of Care. Credit for Prior Learning Option: Credential Notes: Current Certified Professional Midwife (CPM) certification. Prerequisite: Midwife Clinic 1 (10-510-159)

10-510-163**Midwife Clinic 3**

1 Credit. Births: 3; Prenatals: 5; Initial Prenatals: 1; Newborn Exams: 3; Postpartum Visits: 2—all as assistant under supervision. The learner will have the opportunity to further develop critical thinking skills using the Midwives Model of Care in making clinical decisions with an emphasis on antenatal care. The learner will focus on performance of initial history and physical examination including collection of appropriate specimens. Credit for Prior Learning Option: Credential Notes: Current Certified Professional Midwife (CPM) certification. Prerequisite: Midwife Clinic 2 (10-510-162)

10-510-164**Intrapartum**

3 Credits. Intrapartum focuses on normal labor and birth. The learner will be able to determine the steps of the normal labor process including mechanisms of labor and birth, how to assess the mother and neonate's well-being, and screening for complications in each stage of labor. Pre-requisite: Antepartum Theory (10-510-160) and Antepartum Lab (10-510-161)

10-510-165**Postpartum**

1 Credit. Postpartum focuses on the normal postpartum period of pregnancy. The learner will gain an understanding of the normal events of the entire postpartum period, assess for deviations from normal and identify appropriate response. Pre-requisite: Antepartum Theory (10-510-160) or Antepartum Lab (10-510-161)

10-510-166**Neonate**

1 Credit. Neonate focuses on the normal newborn period, including breastfeeding. The learner will gain an understanding and be able to assess for normal newborn physical and behavioral characteristics and identify common complications affecting the neonate. Pre-requisite: Antepartum Theory (10-510-160) and Antepartum Lab (10-510-161)

10-510-167**Midwife Clinic 4**

2 Credits. Births: 10; Prenatals: 10; Initial Prenatals: 3; Newborn Exams: 10; Postpartum Visits: 5—all as an assistant under supervision. The learner focuses on development and skills for education and counseling in the uncomplicated intra and postpartum periods in a supervised clinical setting progressing into a primary care role using the Midwives Model of Care. The learner will begin to develop management skills for the complicated client during the antepartum period. Credit for Prior Learning Option: Credential Notes: Current Certified Professional Midwife (CPM) certification. Prerequisite: Midwife Clinic 3 (10-510-163)

10-510-168**Midwife Clinic 5**

2 Credits. Births: 5; Prenatals: 25; Initial Prenatals: 8; New-born Exams: 5; Postpartum: 10—all as primary under supervision. Using the Midwife Model of Care the learner focuses on beginning development of primary management skills for the uncomplicated intra and postpartum periods in a supervised clinical setting. The learner will begin development of management skills for the care and management of the uncomplicated newborn. The learner will develop primary intermediate management skills for the complicated client during the antepartum period. Credit for Prior Learning Option: Credential Notes: Current Certified Professional Midwife (CPM) certification. Prerequisite: Midwife Clinic 4 (10-510-167)

10-510-169**Midwife Clinic 6**

2 Credits. Births: 10; Prenatals: 20; Initial Prenatals: 6; New-born Exams: 10; Postpartum: 14—all as primary under supervision. Using the Midwives Model of Care the learner focuses on intermediate development of primary management skills for the uncomplicated intra and postpartum periods in a supervised clinical setting. The learner will develop management skills for the primary care and management of the uncomplicated newborn. The learner will assist the preceptor in advanced primary antenatal care skills of the complicated client. The learner will begin to develop counseling and education management for Well Woman Care. Credit for Prior Learning Option: Credential Notes: Current Certified Professional Midwife (CPM) certification. Prerequisite: Midwife Clinic 5 (10-510-168)

10-510-170**Midwife Clinic 7**

3 Credits. Births: 10; Prenatals: 30; Initial Prenatals: 6; New-born Exams: 5; Postpartum: 22; Preconception visits: 10; Lactation counseling: 10—all as primary under supervision. Includes 5 Continuity-of-Care Clients (5 prenatal, Birth, newborn exam, and 2 postpartum) exit exam, and professional Issues exam. The learner will focus on refinement of all pertinent counseling and management skills for independent direct entry midwifery practice using the Midwives Model of Care. Credit for Prior Learning Option: Credential Notes: Current Certified Professional Midwife (CPM) certification. Prerequisite: Midwife Clinic 6 (10-510-169)

10-512-125**Intro to Surgical Technology**

4 Credits. 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. Pre-requisite: General Anatomy & Physiology (10-806-177) and Medical Terminology (10-501-101)

10-512-126**Surgical Tech Fundamentals 1**

4 Credits. 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. Pre-requisite: Medical Terminology (10-501-101) and General Anatomy & Physiology (10-806-177) Co-requisite: Intro to Surgical Technology (10-512-125)

10-512-127**Exploring Surgical Issues**

2 Credits. Explores a variety of issues related to surgical technology. Emphasis is placed on becoming a professional member of the surgical team. Co-requisite: Intro to Surgical Technology (10-512-125) and Surgical Tech Fundamentals 1 (10-512-126)

10-512-128**Surgical Tech Fundamentals 2**

4 Credits. Focuses on enhancing surgical technology skills while functioning as a sterile team member. Lab is included. Co-requisite: Surgical Skills Application (10-512-130) and Microbiology (10-806-197) and Surgical Pharmacology (10-512-129)

10-512-129**Surgical Pharmacology**

2 Credits. 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. Pre-requisite: Surgical Tech Fundamentals 1 (10-512-126) and Intro to Surgical Technology (10-512-125)

10-512-130**Surgical Skills Application**

2 Credits. Provides a transition from the academic to the clinical setting. Learners integrate the surgical technologist skills as they apply to various surgical procedures. Pre-requisites: Intro to Surgical Technology (10-512-125) and Surgical Tech Fundamentals 1 (10-512-126) Co-requisites: Surgical Tech Fundamentals 2 (10-512-128) and Surgical Pharmacology (10-512-129)

10-512-131**Surgical Interventions 1**

4 Credits. 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. Pre-requisites: Surgical Tech Fundamentals 2 (10-512-128) and Surgical Skills Application (10-512-130) and Surgical Pharmacology (10-512-129)

10-512-132**Surgical Technology Clinical 1**

3 Credits. 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. Pre-requisites: Surgical Tech Fundamentals 2 (10-512-128) and Surgical Skills Application (10-512-130); Co-requisite: Surgical Interventions 1 (10-512-131)

10-512-133**Surgical Technology Clinical 2**

3 Credits. Further experience in a clinical setting allows the student to continue to improve technical skills while accepting more responsibilities during surgical procedures. Co-requisite: Surgical Interventions 1 (10-512-131) and Surgical Technology Clinical 1 (10-512-132)

10-512-135**Surgical Technology Clinical 3**

3 Credits. Further experience in a clinical setting allows the student to continue to improve technical skills while accepting more responsibilities during surgical procedures. Pre-requisites: Surgical Interventions 1 (10-512-131) and Surgical Technology Clinical 2 (10-512-133); Co-requisite: Surgical Interventions II (10-512-142)

10-512-136**Surgical Technology Clinical 4**

3 Credits. 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. Co-requisite: Surgical Technology Clinical 3 (10-512-135) and Surgical Interventions II (10-512-142)

10-512-142**Surgical Interventions II**

4 Credits. Expands knowledge of core and specialty surgical procedures by incorporating pathophysiology, diagnostic interventions, health sciences, and surgical techniques. Pre-requisites: Surgical Technology Clinical 2 (10-512-133) and Surgical Interventions 1 (10-512-131)

10-513-109**Blood Bank**

4 Credits. Focuses on blood banking concepts and procedures including blood typing, compatibility testing, work ups for adverse reaction to transfusions, disease states and donor activities. Pre-requisite: Basic Immunology Concepts (10-513-115)

10-513-110**Basic Lab Skills**

1 Credit. This course explores health career options and the fundamental principles and procedures performed in the clinical laboratory. You will utilize medical terminology and basic laboratory equipment. You will follow required safety and infection control procedures and perform simple laboratory tests.

10-513-111**Phlebotomy**

2 Credits. This course provides opportunities for learners to perform routine venipuncture, routine capillary puncture, and special collection procedures.

10-513-113**QA Lab Math**

1 Credit. This course focuses on performing the mathematical calculations routinely used in laboratory settings. You will explore the concepts of quality control and quality assurance in the laboratory.

10-513-114**Urinalysis**

2 Credits. This course prepares you to perform a complete urinalysis which includes physical, chemical, and microscopic analysis. You will explore renal physiology and correlate urinalysis results with clinical conditions. Pre-requisites: Basic Lab Skills (10-513-110) and General Anatomy & Physiology (10-806-177)

10-513-115**Basic Immunology Concepts**

2 Credits. This course provides an overview of the immune system including laboratory testing methods for diagnosis of immune system disorders, viral and bacterial infections. Co-requisite: Basic Lab Skills (10-513-110); Pre/Co-requisite: General Anatomy & Physiology (10-806-177)

10-513-116**Clinical Chemistry**

4 Credits. Introduces clinical chemistry techniques and procedures for routine analysis using photometric, potentiometric and separation techniques. Topics in this course include pathophysiology and methodologies for carbohydrates, lipids, proteins, renal function and blood gas analysis. Additional topics include hepatic, cardiac markers, tumor markers, endocrine function, miscellaneous body fluids, toxicology, enzymes and electrolytes. Pre-requisite: Intro to Biochemistry (10-806-186)

10-513-120**Basic Hematology**

3 Credits. This course covers the theory and principles of blood cell production and function and introduces you to basic practices and procedures in the hematology laboratory. Pre-requisites: Basic Lab Skills (10-513-110) and General Anatomy & Physiology (10-806-177)

10-513-121**Coagulation**

1 Credit. This course 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. Pre-requisites: Basic Lab Skills (10-513-110) and General Anatomy & Physiology (10-806-177)

10-513-130**Advanced Hematology**

2 Credits. This course explores mechanisms involved in the development of hematological disorders. Emphasis is placed upon laboratory techniques used to diagnose disorders and monitor treatment. Pre-requisite: Basic Hematology (10-513-120)

10-513-133**Clinical Microbiology**

4 Credits. This course presents the clinical importance of infectious diseases with emphasis upon the appropriate collection, handling and identification of clinically relevant bacteria. Disease states, modes of transmission and methods of prevention and control, including antibiotic susceptibility testing will also be discussed. Pre-requisite: Microbiology (10-806-197)

10-513-140**Advanced Microbiology**

2 Credits. This course provides an overview of acid fast organisms, fungi, parasites, and anaerobic bacteria. The organisms, their pathophysiology, epidemiology, the diseases and conditions that they cause, laboratory methods of handling, culturing and identification will be discussed. Pre-requisite: Clinical Microbiology (10-513-133)

10-513-141**Pre-Clinical Experience**

2 Credits. This course provides a comprehensive theory review prior to the start of the clinical experience. Students also engage in professional development activities including communication skills and continuing education requirements. Pre-requisite: Clinical Microbiology (10-513-133)

10-513-151**Clinical Experience 1**

3 Credits. In this clinical you will practice the principles and procedures of laboratory medicine as an entry level Clinical Laboratory Technician in a clinical laboratory setting. You will learn to operate state of the art instruments and report results on Laboratory Information Systems. Pre-requisites: Clinical Chemistry (10-513-116) and Advanced Hematology (10-513-130)

10-513-152**Clinical Experience 2**

4 Credits. Provides continuing practice for the principles and procedures of laboratory medicine as an entry level Clinical Laboratory Technician in a clinical laboratory setting. You will learn to operate state of the art instruments and report results on laboratory Information Systems. Pre-requisites: Clinical Chemistry (10-513-116) and Advanced Hematology (10-513-130)

10-513-170**Introduction to Molecular Diagnostics**

2 Credits. Introduces the principles and application of molecular diagnostics in the clinical laboratory. Pre-requisite: Clinical Microbiology (10-513-133)

10-513-180**Body Fluids Analysis**

1 Credit. Covers principles and procedures related to laboratory analysis of body fluids, including serous fluids, cerebral spinal fluid, synovial fluid, and bronchoalveolar lavage (BAL) fluid. The major emphasis of the course is hematologic analysis, including cell counts and differentials. The completion of case studies allows the student to correlate laboratory results with disease states. Pre-requisite: Basic Hematology (10-513-120)

10-513-184**HACCP Training**

2 Credits. This course provides an introduction to HACCP (Hazard Analysis and Critical Control Points) for food processors. The relationship between food safety and HACCP will be discussed in the food manufacturing setting. The principles of HACCP will be explored. HACCP plans, implementation and plan maintenance will be developed in order to prevent foodborne illness. Upon successful completion of the course, students will receive a certificate of completion. Pre-requisite: Manufacturing Practices for Food Industry (10-513-183) or Manufacturing Practices for the Food Industry (10-513-188)

10-513-187**Lab Science Practicum**

2 Credits. In this experiential course you will practice the principles and procedures of laboratory processes required in the food and dairy industry. You will become familiar with industry standards and practices related to quality assurance and safety while working in a laboratory setting. You will learn to operate state of the art instruments and report results per industry protocols. Pre-requisite: Manufacturing Practices for the Food Industry (10-513-188)

10-513-188**Manufacturing Practices for the Food Industry**

1 Credit. This course focuses on the Good Manufacturing Practices (GMP's) as they are defined in Part 110 of Title 21 of the Code of Federal Regulation for the food industry. You will be introduced to each GMP requirements and explore ways food manufacturers can establish process and product

control to meet the intent of each GMP. You will also discuss the consequences of failing to meet and maintain compliance with the GMP's. This course does not replace the mandatory annual GMP training required for workers already employed in a regulated production facility.

10-520-101

Introduction to Human Services

3 Credits. Students investigate the various roles and responsibilities of human service providers. Students examine the history of "helping" and its influence on contemporary programs and policies. Students explore the challenges and dilemmas confronting human service providers as well as current trends and controversies. Because effective human service providers are aware of their own values and biases, students reflect on their thoughts, beliefs, and attitudes about working with diverse populations.

10-520-102

Ethics for the Profession

3 Credits. Students demonstrate their understanding of the Ethical Standards of Human Service Professionals through reflection, class discussion, and case studies. Students apply a model for ethical decision-making to real-world scenarios. Students examine the ethical issues involved in current controversies that affect human services. Pre-requisite: Introduction to Human Services (10-520-101)

10-520-103

Issues In ATODA

3 Credits. Students examine the impact of legal and illegal drug use upon individuals and society. Students analyze the physiological and psychological effects of drugs. Students identify local resources for ATODA services and investigate current treatment strategies. Students reflect upon their attitudes and values about drug use, and how these beliefs may influence their work as human service providers. Pre-requisite: Introduction to Human Services (10-520-101)

10-520-104

Community Resources and Services

3 Credits. Students identify programs and services provided by local human service agencies, through presentations by guest speakers, site visits, and independent research. Students create a resource file. Students implement a service project to address an unmet need in the community.

10-520-105

Interviewing and Counseling Techniques

3 Credits. Students demonstrate entry-level interviewing skills through role-plays and simulations. Students apply the "strengths perspective" and "solution-focused" techniques to client interactions. Pre-requisite: Introduction to Human Services (10-520-101)

10-520-106

Issues of Gerontology

3 Credits. Students examine the challenges faced by individuals and society as human longevity increases. Students explore the issues of concern to older adults: ageism, physical and mental health, finances, relationships, living situations, and long-term/end-of-life care. Students examine their attitudes and beliefs about working with elders. Students identify local providers of services for older adults. Pre-requisites: Introduction to Human Services (10-520-101) and Ethics for the Profession (10-520-102)

10-520-107

Disability Studies

3 Credits. Students examine disability as a "social construct" created by the non-disabled community. Students analyze the barriers that prevent many people with disabilities from full participation in society. Students identify the causes and characteristics of various disabling conditions. Students reflect on their attitudes and beliefs about working with people with disabilities. Students investigate resources for people with disabilities as well as strategies for increasing inclusion. Pre-requisites: Ethics for the Profession (10-520-102) and Community Resources and Services (10-520-104)

10-520-107

Disability Studies

3 Credits. Students examine disability as a "social construct" created by the non-disabled community. Students analyze the barriers that prevent many people with disabilities from full participation in society. Students identify the causes and characteristics of various disabling conditions. Students reflect on their attitudes and beliefs about working with people with disabilities. Students investigate resources for people with disabilities as well as strategies for increasing inclusion. Pre-requisites: Ethics for the Profession (10-520-102) and Community Resources and Services (10-520-104)

10-520-108

Methods of Social Casework

3 Credits. Students develop skills in several areas of the human services profession including case management, crisis intervention, documentation, and grant writing. Pre-requisite: Interviewing and Counseling Techniques (10-520-105); Co-requisite: Professional Documentation in Human Services (10-520-109)

10-520-109

Professional Documentation in Human Services

3 Credits. Students document client information in accordance with professional guidelines using written, recorded and role-played case studies. Students create cover letters, memos, electronic correspondence, and a grant proposal. Pre-requisites: English Composition I (10-801-136) or Written Communication (10-801-195)) and Interviewing and Counseling Techniques (10-520-105); Co-requisite: Methods of Social Casework (10-520-108)

10-520-112**Children, Youth, & Family**

3 Credits. Students will explore the issues and concerns affecting the family system. Students will develop strategies for working effectively with families. Students will learn about child abuse/neglect investigations, foster care, and community-based interventions with children and adolescents. Students will examine models of practice for working with at-risk youth and strengthening families. Pre-requisites: Ethics for the Profession (10-520-102) and Community Resources and Services (10-520-104)

10-520-121**Field Study 1**

4 Credits. Students gain “on-the-job” experience through placements at local human service agencies. Students examine their progress towards learning goals through reflection, discussion, and supervision. Students discuss their experiences, challenges, ethics, and boundary issues during the weekly seminar. Students are not paid for their time in the field. Pre-requisites: Issues In ATODA (10-520-103) and Ethics for the Profession (10-520-102)

10-520-122**Field Study 2**

4 Credits. Students demonstrate advanced skills and techniques used in the field. Students examine their progress toward learning goals through reflection, discussion, and supervision. Students discuss their experiences, challenges, ethics, and boundary issues during the weekly seminar. Students are not paid for their time in the field. Pre-requisite: Field Study 1 (10-520-121)

10-524-139**PTA Patient Interventions**

4 Credits. An introduction to basic skills and physical therapy interventions performed by the physical therapist assistant.

10-524-140**PTA Professional Issues 1**

2 Credits. Introduces the history and development of the physical therapy program, legal and ethical issues, the interdisciplinary health care team, and professional communication skills.

10-524-142**PTA Therapeutic Exercise**

3 Credits. Provides instruction on the implementation of a variety of therapeutic exercise principles. Learners implement, educate, adapt, and assess responses to therapeutic exercises. Pre-requisite: PTA Applied Kinesiology 1 (10-524-156)

10-524-143**PTA Biophysical Agents**

4 Credits. Develops the knowledge and technical skills necessary to perform numerous therapeutic modalities likely to be utilized as a PTA. Pre-requisite: PTA Patient Interventions (10-524-139)

10-524-144**PTA Principles of Neuro Rehab**

4 Credits. Integrates concepts of neuromuscular pathologies, physical therapy interventions, and data collection in patient treatment. Pre-requisites: PTA Patient Interventions (10-524-139) and PTA Applied Kinesiology 2 (10-524-157)

10-524-145**PTA Princ of Musculo Rehab**

4 Credits. Integrates concepts of musculoskeletal pathologies, physical therapy interventions, and data collection in patient treatment. Pre-requisite: PTA Applied Kinesiology 2 (10-524-157)

10-524-146**PTA Cardio & Integrated Management**

3 Credits. Integrates concepts of cardiopulmonary and integumentary pathologies, physical therapy interventions, and data collection in patient treatment. Pre-requisites: PTA Patient Interventions (10-524-139) and PTA Applied Kinesiology 2 (10-524-157)

10-524-147**PTA Clinical Practice 1**

2 Credits. Provides a part-time clinical experience to apply foundational elements, knowledge, and technical skills pertinent to physical therapy practice. Pre-requisite: PTA Applied Kinesiology 1 (10-524-156)

10-524-148**PTA Clinical Practice 2**

3 Credits. Provides another part-time clinical experience to apply foundational elements, knowledge, and technical skills required of the entry level physical therapist assistant in various practice settings. Pre-requisites: PTA Principles of Neuro Rehab (10-524-144) and PTA Clinical Practice 1 (10-524-147)

10-524-149**PTA Rehab Across the Lifespan**

2 Credits. A capstone course that integrates concepts of pathology, physical therapy interventions and data collection across the lifespan. In addition the PTA's role in health, wellness, and prevention; reintegration, and physical therapy interventions for special patient populations will be addressed. Pre-requisites: PTA Principles of Neuro Rehab (10-524-144) and PTA Princ of Musculo Rehab (10-524-145)

10-524-150**PTA Professional Issues 2**

2 Credits. Incorporates professional development, advanced legal and ethical issues, healthcare management and administration, and further development of professional communication strategies. Pre-requisite: PTA Professional Issues 1 (10-524-140)

10-524-151**PTA Clinical Practice 3**

5 Credits. Provides a full-time clinical experience to apply foundational elements, knowledge, and technical skills required of the entry level physical therapist assistant in various practice settings. Pre-requisite: PTA Principles of Neuro Rehab (10-524-144) and PTA Princ of Musculo Rehab (10-524-145)

10-524-156**PTA Applied Kinesiology 1**

4 Credits. Introduces basic principles of musculoskeletal anatomy, kinematics, and clinical assessment. Students locate and identify muscles, joints, and other landmarks of the lower quadrant in addition to assessing range of motion and strength. Integrates analysis of gait. Note: Accepted into Physical Therapist Assistant Program (10-524-1)

10-524-157**PTA Applied Kinesiology 2**

3 Credits. Applies basic principles from PTA Applied Kinesiology 1 to the axial skeleton and upper quadrant including location and identification of muscles, joints and other landmarks. Assess range of motion and strength of the axial skeleton and upper quadrant. Integrates analysis of posture. Pre-requisites: PTA Patient Interventions (10-524-139) and PTA Professional Issues 1 (10-524-140) and PTA Applied Kinesiology 1 (10-524-156) and General Anatomy & Physiology (10-806-177)

10-526-149**Radiographic Procedures 1**

5 Credits. Prepares radiography students to perform routine radiographic procedures of the chest, abdomen, upper and lower extremities, and pelvis. Course includes considerations for mobile and trauma procedures. Students apply knowledge of human anatomy to position the patient correctly to achieve and evaluate optimal diagnostic quality images which includes identifying radiographically significant anatomy. Pre/Co-requisite: General Anatomy & Physiology (10-806-177)

10-526-158**Introduction to Radiography**

3 Credits. Introduces students to the role of radiography in health care. Students apply healthcare communication techniques. Students are introduced to legal and ethical considerations, patient interactions and management, patient and provider safety, and pharmacology. Pre/Co-requisite: General Anatomy & Physiology (10-806-177)

10-526-159**Radiographic Imaging**

3 Credits. Introduces radiography students to the process and components of imaging. Students determine the factors that affect image quality including receptor exposure, spatial resolution, and distortion. Pre/Co-requisite: General Anatomy & Physiology (10-806-177)

10-526-168**Radiography Clinical 1**

2 Credits. 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 radiographic images 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. Co-requisites: Radiographic Procedures 1 (10-526-149) and Introduction to Radiography (10-526-158) and Radiographic Imaging (10-526-159)

10-526-168**Radiography Clinical 1**

2 Credits. 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 radiographic images 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. Pre-requisite: 10526-168 Pre Radiography Clinical 1

10-526-174**ARRT Certification Seminar**

2 Credits. Provides preparation for the for the national certification examination prepared by the American Registry of Radiologic Technologists. Simulated registry examinations are utilized.

10-526-189**Radiographic Pathology**

1 Credit. 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.

10-526-190**Radiography Clinical 5**

2 Credits. This fifth level clinical course prepares radiography students to perform radiologic procedures on patients with limited direct and mainly indirect supervision. Students apply radiation protection and standard precautions in the production of radiographic images in a health care setting while adhering to legal and ethical guidelines. Students are encouraged to demonstrate independent judgment in the performance of clinical competencies. Pre-requisite: Radiography Clinical 4 (10-526-199)

10-526-191**Radiographic Procedures 2**

5 Credits. Prepares radiography students to perform routine radiographic procedures of the skull, facial bones, sinus, spine, bony thorax, gastrointestinal, urological, and special studies. Course includes considerations for contrast, mobile, surgical and trauma procedures. Students apply knowledge of human anatomy to position the patient correctly to achieve and evaluate optimal diagnostic quality images which includes identifying radiographically significant anatomy. Pre-requisite: Radiographic Procedures 1 (10-526-149)

10-526-192**Radiography Clinical 2**

3 Credits. This second level clinical course continues to prepare radiography students to perform radiologic procedures on patients with considerable direct and limited indirect supervision. Students apply radiation protection and standard precautions in the production of radiographic images in a health care setting while adhering to legal and ethical guidelines. An emphasis of the course is the development of communication and critical thinking skills appropriate to the clinical setting. Pre-requisite: Radiography Clinical 1 (10-526-168)

10-526-193**Radiography Clinical 3**

4 Credits. This third level clinical course prepares radiography students to perform radiologic procedures on patients with varying degrees of direct and indirect supervision. Students apply radiation protection and standard precautions in the production of radiographic images in a health care setting while adhering to legal and ethical guidelines. An emphasis of the course is the demonstration of communication and critical thinking skills appropriate to the clinical setting. Pre-requisite: Radiography Clinical 2 (10-526-192)

10-526-194**Imaging Equipment Operation**

3 Credits. 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 malfunction. Note: Requires admission to the Radiography Program or department approval.

10-526-195**Radiographic Image Analysis**

2 Credits. Prepares radiography students to analyze radiographic images for quality. Students apply quality control tests to determine the causes of image problems including equipment malfunctions and procedural errors. Note: Requires admission to the Radiography Program or department approval.

10-526-197**Radiation Protection and Biology**

3 Credits. 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. Note: Requires admission to the Radiography Program or department approval.

10-526-198**Radiography Clinical 6**

2 Credits. 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 with minimal direct and primarily indirect supervision. Students apply radiation protection and standard precautions in the production of images in a health care setting while adhering to legal and ethical guidelines. Students are encouraged to demonstrate independent judgment in the performance of clinical competencies. Pre-requisite: Radiography Clinical 5 (10-526-190)

10-526-199**Radiography Clinical 4**

3 Credits. This fourth level clinical course prepares radiography students to perform radiologic procedures on patients. The student transitions from direct to indirect supervision as competency performance increases. Students apply radiation protection and standard precautions in the production of radiographic images in a health care setting while adhering to legal and ethical guidelines. Students are encouraged to demonstrate independent judgment in the performance of clinical competencies. Pre-requisite: Radiography Clinical 3 (10-526-193)

10-526-230**Advanced Radiographic Imaging**

2 Credits. Explores the factors that impact image acquisition, display, archiving and retrieval. Guidelines for selecting exposure factors and evaluating images within digital systems are discussed. Principles of digital system quality assurance and maintenance are presented. Note: Requires admission to the Radiography Program or department approval. Pre-requisite: Radiographic Imaging (10-526-159)

10-526-231**Imaging Modalities**

2 Credits. Introduces radiography students to imaging modalities with an emphasis in computed tomography and cross-sectional anatomy. Note: Requires admission to the Radiography program or department approval.

10-530-110**Introduction to Cancer Registry Management**

3 Credits. Introduces cancer registries: hospital and central registries, as well as legal issues, confidentiality, types of registries, data usage, other disease registries, and registry operations and functions. Pre-requisites: Advanced Anatomy

& Physiology (10-806-179) or Anatomy and Physiology II (20-806-208)) and Foundations of HIM (10-530-162)

10-530-111

Cancer Disease Management

4 Credits. Introduces the pathophysiology of cancer and the study of oncology disease processes. Diagnostic and staging procedures include lab, pathology, radiography, and surgical procedures with treatment modalities to include surgery, chemotherapy, radiation therapy, immunotherapy, etc., with emphasis on the major sites of cancer, clinical trials, and research protocols. Pre-requisites: Advanced Anatomy & Physiology (10-806-179) or Anatomy and Physiology II (20-806-208)) and Medical Terminology (10-501-101)

10-530-112

Oncology Coding and Staging

4 Credits. Introduces oncology coding and staging systems with a general overview of the International Classification of Diseases for Oncology terminology and classification system, and focuses on coding clinical information from medical records: coding diagnosis, procedures, sequencing, and coding conventions, staging and disease concepts used by physicians and cancer surveillance organizations to determine treatment and survival. Pre-requisites: Introduction to Cancer Registry Management (10-530-110) and Cancer Disease Management (10-530-111) and Advanced Anatomy & Physiology (10-806-179)

10-530-113

Cancer Statistics and Epidemiology

3 Credits. Introduces cancer statistics, describes and analyzes epidemiology, cancer surveillance, annual reporting preparation, presentation of cancer data, physician, patient, follow-up resources and activities. Pre-requisites: English Composition I (10-801-136) or Written Communication (10-801-195) and Introduction to Cancer Registry Management (10-530-110) and Cancer Disease Management (10-530-111) and Speech (10-801-198)

10-530-114

Abstracting Principles and Practice I

3 Credits. Introduces principles of cancer registry abstracting, identifies and selects appropriate clinical information from medical records in alignment with cancer regulatory core data item requirements: recording, coding, and staging site specific cancer information using manual and computerized applications. Pre-requisites: Introduction to Cancer Registry Management (10-530-110) and Cancer Disease Management (10-530-111) and Advanced Anatomy & Physiology (10-806-179)

10-530-115

Cancer Patient Follow-up

2 Credits. Focuses on cancer patient follow-up methodologies, ethical issues, confidentiality, identification of second primaries, recurrence, and spread of disease, survival data

with physician and patient follow up resources and activities. Pre-requisites: Oncology Coding and Staging (10-530-112) and Abstracting Principles and Practice I (10-530-114) and Cancer Statistics and Epidemiology (10-530-113)

10-530-116

Abstracting Principles and Practice II

3 Credits. Applies principles of cancer registry abstracting, identifies and selects appropriate clinical information from medical records in alignment with cancer registry core data requirements: recording, coding, and staging site specific cancer information using manual and computerized applications. Pre-requisites: 10530-116 Abstracting Principles and Practice I (10-530-114) and Introduction to Cancer Registry Management (10-530-110) and Cancer Disease Management (10-530-111) and Oncology Coding and Staging (10-530-112) and Cancer Statistics and Epidemiology (10-530-113) and Advanced Anatomy & Physiology (10-806-179)

10-530-117

Cancer Registry Management Practicum

3 Credits. Experiential learning in a cancer registry setting to gain hands-on experience of all aspects of registry organizations, operations, and protocols. Supervised clinical experience performing tasks in registry management, quality improvement, and assessment. Pre-requisites: Cancer Statistics and Epidemiology (10-530-113) and Intro to Health Informatics (10-530-164) and Introduction to Diversity Studies (10-809-172) and Introduction to Psychology (10-809-198) and Abstracting Principles and Practice I (10-530-114) and Oncology Coding and Staging (10-530-112)

10-530-118

CTR Prep

1 Credit. Prepares the student for the Certified Tumor Registrar (CTR) examination. Students will review the CTR Certification Examination Candidate Handbook and complete the exam application, organize open-book resources and study tools, prepare for the exam environment, and complete timed practice quizzes and exams. Pre-requisites: Abstracting Principles and Practice I (10-530-114) and Cancer Statistics and Epidemiology (10-530-113) and Intro to Health Informatics (10-530-164) and Oncology Coding and Staging (10-530-112) Co-requisites: Cancer Patient Follow-up (10-530-115) and Cancer Registry Management Practicum (10-530-117) and Health Quality Management (10-530-161) and Abstracting Principles and Practice II (10-530-116)

10-530-120

Intro to Medical Reimbursement

2 Credits. Investigates key trends that impact healthcare costs and reimbursement systems, including prospective payment methods and value-based purchasing. Learners compare government and non-government payers, explore payment methods, and apply systems to maximize reimburse-

ment. Additionally, learners will gain skills in managing claim processes and advocating for patients navigating healthcare services.

10-530-121

Intro to Healthcare Data Analytics

3 Credits. Introduction to the principles and practices of health data analytics. Students will explore statistical methods, database design, and data visualization techniques tailored to healthcare environments. Emphasis is placed on collecting, analyzing, and interpreting healthcare data to support decision-making and improve outcomes.

10-530-157

Revenue Cycle Management

2 Credits. Develops skills in managing the revenue cycle by collaborating with teams, ensuring compliance, and applying measures to improve efficiency. Learners will evaluate coding practices for fraud and abuse, conduct audits, and handle appeals. Additionally, learners will analyze utilization data, manage the charge description master (CDM), and conduct clinical documentation improvement (CDI) activities to enhance documentation and reimbursement accuracy.

10-530-158

Healthcare Law

3 Credits. Develops skills to maintain a legally defensible health record, differentiate between legal health records, and ensure compliance with regulations related to patient rights and confidentiality. Learners will interpret laws affecting health information, process requests for health data, and prepare records for legal proceedings. Additionally, learners will analyze organizational policies for regulatory compliance, evaluate risk management data, and recommend responses to breaches of professional ethics.

10-530-159

Health Revenue Management

3 Credits. Prepares learners to compare and contrast health care payers, evaluate the reimbursement cycle and compliance with regulations. Learners assign payment classifications with entry level proficiency using computerized encoding and grouping software. Pre-requisites: Foundations of HIM (10-530-162) and ICD Diagnosis Coding (10-530-197) and ICD Procedure Coding (10-530-199); Co-requisite: CPT Coding (10-530-184)

10-530-162

Foundations of HIM

3 Credits. Introduces learners to the healthcare delivery system and the external forces that influence healthcare delivery. Sets an understanding for the expectations and standards related to professional ethics, confidentiality and security of health information. Differentiates the use and

structure of healthcare data elements, data standards, and the relationships between them. Prepares learners to collect and maintain health data to ensure a complete and accurate health record. Note: Students must have already completed or have concurrent enrollment in Digital Literacy for Healthcare (10-501-107). Co-requisite: Digital Literacy for Healthcare (10-501-107)

10-530-163

Healthcare Stats and Analytics

3 Credits. Explores the management of medical data for statistical purposes focusing on descriptive and inferential statistics including definition, collection, calculation and compilation of numerical data. Examines data analytics, retrieval, presentation, and research methodologies. Pre-requisite: Foundations of HIM (10-530-162)

10-530-164

Intro to Health Informatics

3 Credits. Emphasizes the role of information technology in healthcare through an investigation of the electronic health record (EHR), business, and health information software applications. Learners will develop skills to assist in enterprise information management and database architecture design and implementation. Pre-requisites: Digital Literacy for Healthcare (10-501-107) and Foundations of HIM (10-530-162)

10-530-165

Intermediate Coding

3 Credits. Prepares students to assign ICD and CPT/HCPCS codes supported by medical documentation and official coding guidance to support appropriate reimbursement. Students will participate in CDI activities, including preparation of appropriate physician queries in accordance with compliance guidelines. Pre/Co-requisites: Health Revenue Management (10-530-159) and ICD Procedure Coding (10-530-199)

10-530-166

HIT Capstone

1 Credit. Prepares the student to enter the workforce. Topics may include resume and cover letter writing, interviewing skills, portfolio preparation, and RHIT examination preparation. Pre-requisite: Intermediate Coding (10-530-165); Co-requisites: Health Quality Management (10-530-161) and Management of HIM Resources (10-530-167)

10-530-167

Management of HIM Resources

3 Credits. Examines the principles of management to include planning, organizing, human resource management, directing, and controlling as related to the health information department. Pre-requisites: Foundations of HIM (10-530-162) and Intro to Health Informatics (10-530-164)

10-530-178**Healthcare Law & Ethics**

2 Credits. Examines regulations for the content, use, confidentiality, disclosure, and retention of health information. An overview of the legal system and ethical issues are addressed. Pre-requisite: Foundations of HIM (10-530-162)

10-530-179**Management & Performance Improvement**

3 Credits. Compares management theories and leadership styles while investigating the role of the HIM Manager. Learners will conduct operational and human resource management activities and explore project management and performance improvement tools. Additionally, learners will utilize data analytics for strategic planning, evaluate performance data for trends, and report outcomes to external agencies.

10-530-180**Intro to Health Information**

2 Credits. Investigates the external forces shaping the healthcare delivery system, differentiating between types of organizations across the continuum of care. Learners will explore the roles and responsibilities of various healthcare providers and the interrelationships among them, as well as the specific duties of health information professionals. Additionally, learners will demonstrate professional ethical standards and examine both paper and electronic health records.

10-530-182**Human Diseases for Health Professional**

3 Credits. Prepares learners to interpret clinical documentation that they will encounter in a variety of healthcare settings. Emphasis is placed on understanding the common disorders and diseases of each body system to include the etiology (cause), signs and symptoms, diagnostic tests and results, and medical treatments and surgical procedures. Pre-requisites: General Anatomy & Physiology (10-806-177) or Basic Anatomy (10-806-189) and Medical Terminology (10-501-101)

10-530-184**CPT Coding**

3 Credits. Prepares learners to assign CPT codes, supported by medical documentation, with entry level proficiency. Learners apply CPT instructional notations, conventions, rules, and official coding guidelines when assigning CPT codes to case studies and actual medical record documentation. Pre-requisites: General Anatomy & Physiology (10-806-177) or Basic Anatomy (10-806-189) or Anatomy and Physiology I (20-806-207) and Medical Terminology (10-501-101)

10-530-190**Data Management in HIM**

2 Credits. Evaluates compliance with documentation requirements, comparing standards from various accreditors. Learners will perform record completion processes, including quantitative and qualitative analysis, while monitoring compliance with documentation standards. Additionally,

learners will utilize secondary data sources, manage the master patient index, and apply retention and destruction policies for electronic health information. This course equips learners with essential skills for effective data management in healthcare.

10-530-196**Professional Practice**

3 Credits. Applies previously acquired skills and knowledge by means of clinical experiences in the technical procedures of health record systems and discussion of clinical situations. Student may participate in a supervised clinical experience in healthcare facilities. Pre/Co-requisites: Health Quality Management (10-530-161) and Management of HIM Resources (10-530-167)

10-530-197**ICD Diagnosis Coding**

3 Credits. 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. Note: Students must have already completed or have concurrent enrollment in Human Diseases for the Health Professions (10-530-182). Pre-requisite: General Anatomy & Physiology (10-806-177) or Anatomy and Physiology I (20-806-207); Pre/Co-requisite: Human Diseases for Health Professional (10-530-182)

10-530-199**ICD Procedure Coding**

2 Credits. 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. Co-requisite: Human Diseases for Health Professional (10-530-182)

10-531-101**Emergency Medical Technician**

5 Credits. Students will demonstrate the skills necessary to respond to emergency calls and provide efficient and immediate care to critically ill and injured patients, both at the location of the emergency and during transport to the appropriate medical facility. Students will integrate critical thinking, emergency care concepts and skills in managing patients into an over-all pre-hospital treatment plan and to coordinate this plan with the receiving hospital staff. Successful completion of this course can lead to licensure by the State of Wisconsin as an EMT.

10-531-105**Emergency Medical Technician 1**

3 Credits. This course provides the foundational knowledge for future Emergency Medical Technicians and Emergency

Medical Responders. Topics include: basic human anatomy, performing a patient assessment, traumatic injury management, airway management, and Basic Life Support cardiac resuscitation. Upon successful completion, candidates will be eligible to participate in the National Registry of EMTs Emergency Medical Responder exams for Wisconsin EMR certification.

10-531-106

Emergency Medical Technician 2

3 Credits. This course provides the student with the skills to perform patient assessment, stabilize/immobilize injuries and provide basic treatment of medical emergencies at the Emergency Medical Technician Basic (EMT) level. Successful completion of this course makes you eligible to attempt the NREMT cognitive and psychomotor exam at the EMT level. Co-requisite: Emergency Medical Technician 1 (10-531-105)

10-531-911

EMS Fundamental

2 Credits. This course provides the paramedic student with comprehensive knowledge of EMS systems, safety, well-being, legal issues, and ethical issues, with the intended outcome of improving the health of EMS personnel, patients, and the community. The students will obtain fundamental knowledge of public health principles and epidemiology as related to public health emergencies, health promotion, and illness/injury prevention. Introducing students to comprehensive anatomical and medical terminology and abbreviations will foster the development of effective written and oral communications with colleagues and other health care professionals.

10-531-912

Paramedic Medical Principles

4 Credits. This course addresses the complex depth of anatomy, physiology, and pathophysiology of major human systems while also introducing the paramedic students to the topics of shock, immunology, and bleeding.

10-531-913

Adv. Patient Asses. Principles

3 Credits. This course teaches the paramedic student to integrate scene and patient assessment findings with knowledge of epidemiology and pathophysiology to form a field impression. By utilizing a structured and organized assessment process with knowledge of anatomy, physiology, pathophysiology, life span development, and changes that occur to the human body with time, the students will learn to develop a list of differential diagnoses through clinical reasoning, along with the ability to modify the assessment as necessary to formulate a treatment plan for their patients.

10-531-914

Adv. Pre-Hospital Pharmacology

3 Credits. This course provides the paramedic student with the comprehensive knowledge of pharmacology required to

formulate and administer a pharmacological treatment plan intended to mitigate emergencies and improve the overall health of the patient.

10-531-915

Paramedic Respiratory Mgt.

2 Credits. This course teaches the paramedic student to integrate complex knowledge of anatomy, physiology, and pathophysiology into the assessment to develop and implement a treatment plan with the goal of assuring a patient airway, adequate mechanical ventilation, and respiration for patients of all ages. Specific knowledge pertaining to the respiratory system is also provided to ensure the student is prepared to formulate a field impression and implement a comprehensive treatment plan for a patient with a respiratory complaint.

10-531-916

Paramedic Cardiology

4 Credits. This course teaches the paramedic student to integrate assessment findings with principles of cardiovascular anatomy, physiology, epidemiology, and pathophysiology to formulate a field impression and implement a comprehensive treatment plan for a patient with a cardiovascular complaint. Prerequisites include all courses in the first semester. Co-requisites: EMS Fundamentals (10-531-911), Paramedic Medical Principles (10-531-912), Advanced Patient Assessment Principles (10-531-913), Advanced Pre-hospital Pharmacology (10-531-914)

10-531-917

Paramedic Clinical/Field 1

3 Credits. This course provides the student with the opportunity to enhance his or her learning through the practice of paramedicine in field and health care environment experiences with actual patients under the supervision of instructors or approved preceptors. Students may also have the opportunity to participate in formal high-fidelity human patient simulator experiences as a part of this course.

10-531-918

Adv. Emergency Resuscitation

1 Credits. By teaching Advanced Cardiac Life Support (ACLS) and Pediatric Advanced Life Support (PALS) methodologies and protocols, this course prepares the paramedic student in the integration of comprehensive knowledge of causes and pathophysiology into the management of shock, respiratory failure, respiratory arrest, cardiac arrest, and peri-arrest states with an emphasis on early intervention to prevent respiratory and/or cardiac arrest if possible. Prerequisites: EMS Fundamentals (10-531-911), Paramedic Medical Principles (10-531-912), Advanced Patient Assessment Principles (10-531-913), Advanced Pre-hospital Pharmacology (10-531-914), Paramedic Respiratory Management (10-531-915), and Paramedic Cardiology (10-531-916)

10-531-919**Paramedic Medical Emergencies**

4 Credits. This course teaches the paramedic student to integrate assessment findings with principles of anatomy, physiology, epidemiology, and pathophysiology to formulate a field impression and implement a comprehensive treatment plan for a patient with a medical complaint.

10-531-920**Paramedic Trauma**

3 Credits. This course teaches the paramedic student to integrate assessment findings with principles of anatomy, physiology, epidemiology, and pathophysiology to formulate a field impression and implement a comprehensive treatment plan for an acutely injured patient.

10-531-921**Special Patient Populations**

3 Credits. This course teaches the paramedic student to integrate assessment findings with principles of anatomy, physiology, epidemiology, and pathophysiology to formulate a field impression and implement a comprehensive treatment plan for patients with special needs. Gynecological emergencies, along with special considerations in trauma are also included within this course.

10-531-923**Paramedic Capstone**

1 Credit. This course provides the student with a final opportunity to incorporate their cognitive knowledge and psychomotor skills through labs and scenario-based practice and evaluations prior to taking the National Registry written and practical examinations. Technical skills attainment (TSA) for each student will be compiled and/or documented within this course as required by the DHS-approved paramedic curriculum.

10-531-924**Paramedic Clinical/Field 2**

4 Credits. This course provides the student with the opportunity to enhance his or her learning through the practice of paramedicine in field and health care environment experiences with actual patients under the supervision of instructors or approved preceptors. Students may also have the opportunity to participate in formal high-fidelity human patient simulator experiences as a part of this course. 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.

10-543-101**Nursing Fundamentals**

2 Credits. Students learn basic nursing concepts that the beginning nurse will need to provide care to diverse patient populations. Learners explore current and historical issues influencing nursing. The nursing process is introduced as a framework for organizing the care of patients with alterations in cognition, elimination, comfort, mobility, integument, and fluid/electrolyte balance, integument, and grief/loss. Pre/Co-requisite: General Anatomy & Physiology (10-806-177) or Anatomy and Physiology I (20-806-207)

10-543-102**Nursing Skills**

3 Credits. Students develop clinical and physical assessment skills across the lifespan, including; mathematic calculations and conversions related to clinical skills, blood pressure assessment, aseptic technique, wound care, oxygen administration, tracheotomy care, suctioning, management of central systems, basic medication administration, glucose testing, enemas, ostomy care, and catheterization. Competence obtaining a health history and basic physical assessment skills using a body systems approach is gained. Note: Completion of Math Review for Health Occupations in the Knox Learning Center is required. Pre/Co-requisite: General Anatomy & Physiology (10-806-177) or Anatomy and Physiology I (20-806-207)

10-543-103**Nursing Pharmacology**

2 Credits. Students are introduced to the principles of pharmacology, including drug classifications, effects on the body, and nursing process when administering medications. Pre/Co-requisites: General Anatomy & Physiology (10-806-177) or Anatomy and Physiology I (20-806-207)) and Nursing Fundamentals (10-543-101) and Nursing Skills (10-543-102)

10-543-104**Nursing Intro Clinical Practice**

2 Credits. Students learn basic nursing skills and application of the nursing process in meeting the needs of diverse clients including the formation of nurse-client relationships, communication, data collection, documentation, and medication administration. Co-requisite: Nursing Pharmacology (10-543-103)

10-543-105**Nursing: Health Alterations**

3 Credits. Students advance their concepts of health and illness by applying theories of nursing to the care of clients through the lifespan, and utilizing problem solving and critical thinking. Learners are given an opportunity to study conditions affecting different body systems and apply therapeutic nursing interventions. Students are introduced to the concepts of leadership, team building, and scope of practice. Pre-requisite: Nursing Pharmacology (10-543-103)

10-543-106**Nursing Health Promotion**

3 Credits. Students explore topics related to health promotion and nursing care in the context of the family, such as reproductive issues, pregnancy, labor and delivery, postpartum, the newborn, and the child. Recognizing the spectrum of healthy families, students learn to discern patterns associated with adaptive and maladaptive behaviors applying mental health principles that support healthy lifestyle choices, including nutrition, exercise, stress management, empowerment, and risk reduction practices. Learners study family dynamics, functions, discipline styles, and stages of development. Pre-requisites: Nursing Pharmacology (10-543-103) and Nursing Intro Clinical Practice (10-543-104)

10-543-107**Nursing: Clinical Care Across the Lifespan**

2 Credits. Students apply nursing concepts and therapeutic interventions to clients across the lifespan. Learners are introduced to concepts of teaching, and learning, in various care settings. Pre-requisite: Intro Clinical Practice (10-543-104)

10-543-108**Nursing: Introduction to Clinical Care Management**

2 Credits. Students apply nursing concepts and therapeutic nursing interventions to groups of clients while using leadership, management, and team building skills. Pre-requisite: Nursing: Intro Clinical Practice (10-543-104)

10-543-109**Nsg: Complex Health Alterations I**

3 Credits. Students expand knowledge from previous courses in caring for clients with alterations in cardiovascular, respiratory, endocrine, and hematologic systems as well as clients with fluid/electrolyte and acid-base imbalance, and alterations in comfort. Pre-requisites: Nursing Health Promotion (10-543-106) and Nursing: Introduction to Clinical Care Management (10-543-108)

10-543-110**Nursing: Mental Health and Community Concepts**

2 Credits. Students explore the delivery of community and mental health care, including the specific health needs of individuals, families, and groups. Learners focus on diverse and at-risk populations, adaptive/maladaptive behaviors and specific mental health disorders. Community resources are examined in relation to specific types of support offered to racial, ethnic, economically diverse individuals and groups. Pre-requisite: Nursing Health Promotion (10-543-106)

10-543-111**Nursing: Intermediate Clinical Practice**

3 Credits. Students advance clinical nursing skills by working with clients with complex health care needs. Learners further develop skills to manage multiple clients and priorities. Using

the nursing process, students will gain experience in adapting nursing practice to meet the needs of clients with diverse needs and backgrounds. Pre-requisite: Intro to Clinical Care Management (10-543-108)

10-543-112**Nursing: Advanced Skills**

1 Credit. Students develop advanced clinical skills, including advanced IV skills, blood product administration, chest tube systems, basic EKG interpretation and nasogastric/feeding tube insertion. Pre-requisites: Intro to Clinical Care Management (10-543-108) and Nursing Health Promotion (10-543-106)

10-543-113**Nursing: Complex Health Alterations II**

3 Credits. Learners expand knowledge and skills from previous courses in caring for clients with alterations in the immune, neurosensory, musculoskeletal, gastrointestinal, hepatobiliary, renal/urinary, and the reproductive systems. Students also focus on the management of care of 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. Pre-requisite: Nursing Complex Health Alterations I (10-543-109)

10-543-114**Nursing Management & Professional Concepts**

2 Credits. Students explore nursing management and professional issues related to the role of the RN. Emphasis is placed on preparing for RN practice. Pre-requisites: Nursing Complex Health Alterations I (10-543-109) and Nursing Intermediate Clinical Practice (10-543-111)

10-543-115**Nursing Advanced Clinical Practice**

3 Credits. Students integrate concepts from all previous courses in the management groups of clients facing complex health alterations. Students will have the opportunity to further develop critical thinking skills using the nursing process in making clinical decisions. Continuity of care through interdisciplinary collaboration is emphasized. Pre-requisite: Nursing Complex Health Alterations I (10-543-109) and Nursing Intermediate Clinical Practice (10-543-111)

10-543-116**Nursing Clinical Transition**

2 Credits. Students integrate knowledge learned in previous courses in transitioning to the role of the graduate nurse by engaging in relatively independent clinical decisions, delegation, and collaboration to achieve client and organizational outcomes. Continued professional development is fostered. Pre-requisites: Nursing Complex Health Alterations I (10-543-109) and Nursing Intermediate Clinical Practice (10-543-111)

10-543-159

LPN to RN Bridge

3 Credits. Students will transition from the role of Practical Nurse to that of a student preparing for the role of Registered Nurse. Students will validate their learning through participation in a variety of learning activities, including demonstration of nursing skills and clinical experiences.

10-606-128

Intro to Autocad/Inventor

1 Credit. Students will be introduced to Autodesk Inventor and AutoCAD Electrical, with a focus on electrical print design. The course will cover essential tools and techniques within each software to create 2D drawings, electrical schematics, and 3D CAD models. By the conclusion of the course, students will have a foundational understanding of both applications and the practical skills necessary to utilize them at an introductory level. Pre-requisite: DC and AC Fundamentals (10-620-101)

10-606-129

Manufacturing Processes

1 Credit. This course explores key strategies that modern manufacturing operations use to enhance performance, reduce costs, and streamline workflows. Students will gain an understanding of lean manufacturing principles, the 5S workplace organization system, value stream mapping, setup reduction and quick changeover techniques. The course also highlights the integration of automation technologies and smart manufacturing systems to support lean initiatives. Additional topics include total productive maintenance, statistical process control (SPC), and how automation can enhance data collection, process monitoring, and overall operational efficiency.

10-620-101

DC and AC Fundamentals

5 Credits. Students will explore and apply the principles of DC and AC electricity and components. Major topics of study include: electrical safety, direct current (DC) and its characteristics, resistors and resistance, electrical units of volts, ohms, amps, and watts and their relationships in series, parallel, and series-parallel circuits, test and measurement tools and techniques, circuit analysis using common electrical laws and theorems, alternating current (AC) and its characteristics, capacitors and inductors and the effects of inductance and capacitance in AC circuits. In addition, basic soldering/desoldering, breadboarding, and troubleshooting skills will be practiced.

10-620-107

Hydraulics and Pneumatics

3 Credits. Students examine the principles of fluidic and pneumatic power. Students investigate the operation and applications of devices used in these systems along with the symbolic representation of these devices. Utilizing this information the student will build, analyze, and troubleshoot

hydraulic and pneumatic circuits in a laboratory setting. Pre-requisite: College Technical Mathematics 1A (10-804-113) or Intermediate Algebra with Applications (10-804-118)

10-620-117

Robotics

3 Credits. Students will use the RoboWare Millennium Edition software to program the Mitsubishi RV-Mx and RV-Ex series of industrial robots to perform a variety of specific tasks. Major topics of study include: robot overview, robot components, robot applications, and robot programming using Roboware Millennium Edition software. Pre-requisite: Fundamentals of Embedded Systems (10-620-157)

10-620-121

Mechanics and Materials

4 Credits. Learners explore the basic concepts of simple mechanical drives and drive components. Major topics include: V-belt drives, chain drives, and gear drives. Learners install and align mechanical drive system components to specified tolerances using a variety of common and specialized hand tools and measuring instruments including dial calipers, micrometers, levels, and rules.

10-620-123

Construction Electrical Wiring I

1 Credit. Students will develop an understanding of single phase power and how it applies to residential electrical applications. You will learn about power distribution from the utility, to the meter and the distribution throughout the home. All applications will adhere to all OSHA and NEC regulations. Co-requisite: DC and AC Fundamentals (10-620-101)

10-620-124

Welding for Maintenance

2 Credits. The student creates weldments in flat, vertical, horizontal, and overhead positions; these weldments will utilize SMAW, MIG, TIG, brazing and oxyfuel. All operations will adhere to AWS Code.

10-620-126

Industrial Electrical Wiring

2 Credits. The students design, install, and troubleshoot electrical systems for power distribution and motor control within Industrial environments. All functions adhere to NFPA 79 and the National Electrical Code.

10-620-131

Electrical Wiring—Basic

1 Credit. Students apply related code applications, OSHA safety standards, and use testing instruments through class participation and simulated field activities. Night class for Plumbing Apprenticeship Program.

10-620-138**Construction Electrical Wiring II**

1 Credit. Students will develop an understanding of single phase power and how it applies to residential electrical applications. You will learn about power distribution from the utility, to the meter and the distribution throughout the home. All applications will adhere to all Code and safety regulations. Co-requisite: Construction Electrical Wiring I (10-620-123)

10-620-148**Intro to Motor Controls**

2 Credits. Students operate, install, and troubleshoot relay and variable frequency drive control of A/C electric motors found in industrial and commercial applications. Students will learn to develop and read schematics, including ladder logic, wire typical relay applications, test and monitor A/C electrical equipment and troubleshoot equipment as necessary. Pre-requisite: DC and AC Fundamentals (10-620-101)

10-620-149**Intro to Programmable Controls**

2 Credits. Students design, program, operate, and troubleshoot discrete input/ output PLC functions utilizing Allen Bradley Control Logix programming software. Students will develop ladder logic programs on a PC, transfer them to and from a PLC, and monitor PLC operations.

10-620-150**Advanced Programmable Controls**

2 Credits. This course will provide the learner with advanced PLC programming including analog principles and human machine interfaces in conjunction with other advance programming features. Pre-requisite: Intro to Programmable Controls (10-620-149)

10-620-151**Process Control Systems**

5 Credits. Students will explore and apply the fundamental concepts, components, and techniques of industrial process control. Major topics of study include: on-off, proportional, and PID control of level, flow, and temperature processes. Pre-requisite: DC and AC Fundamentals (10-620-101)

10-620-154**Advanced Calibration Techniques & Analytics**

3 Credits. Students will learn industry standard calibration and analytical procedures as it applies to process control. Topics covered include the areas of temperature, pressure, level, and flow. Pre-requisite: Process Control Systems (10-620-151)

10-620-156**Fiber Optic Cabling Technician**

1 Credit. This course introduces learners to the core skills needed to install and configure fiber optics in modern networks. Topics include light transmission, fiber types,

preparation, termination, splicing, inspection, testing, and industry-specific safety. Learners will practice selecting, installing, terminating, splicing, inspecting, and testing fiber optic cables to EIA/TIA standards using industry tools and procedures. The course aligns with the Fiber Optic Association (FOA) Certified Fiber Optic Technician (CFOT) certification exam.

10-620-157**Fundamentals of Embedded Systems**

1 Credit. Explore the world of embedded systems—technology found in cars, phones, and smart devices. This intro course focuses on microcontrollers, the small but vital components in modern products. Learn number systems, digital basics, microcontroller vs. PC architecture, and basic programming. Apply concepts by building microcontroller-based solutions to simulated industrial tasks. Pre-requisite: DC and AC Fundamentals (10-620-101)

10-620-158**Fiber Optic Outside Plant Specialist**

1 Credit. Students will be introduced to installing, testing, and troubleshooting fiber optic cabling. This course focuses primarily on Outside Plant (OSP) single-mode cable operations. Learning outcomes include identifying, installing, preparing, terminating, splicing, and testing OSP fiber cable to existing standards and industry specifications. The course prepares students to take the Fiber Optics Association (FOA) CFOS/O, OSP hands-on and written exam in order to earn industry recognized credentials. Prior to participation in the course, students will be asked to provide proof of CFOT certification.

10-620-159**Introduction to Frequency & Servo Drives**

2 Credits. Students operate, wire, program, and troubleshoot variable frequency and servo drives found in industrial and commercial applications. Students will learn to develop and read schematics, wire typical drive applications, troubleshoot and monitor the control of A/C electrical motors. Pre-requisites: DC and AC Fundamentals (10-620-101) and Intro to Motor Controls (10-620-148) and Intro to Programmable Controls (10-620-149)

10-620-162**Manual Machine Shop Fundamentals**

3 Credits. This course teaches students to set up and operate engine lathes, band saws, milling machines, and hydraulic surface grinders to fabricate within tolerances specified in projects according to prints provided. Students will use and identify machine shop tooling and measurement equipment.

10-620-163**Intro to Mechatronics**

1 Credit. Students will learn foundational information and develop hands-on skill in the areas of Mechanical, Electrical, and Control Technology. Topics covered include the areas of pneumatics, electricity, sensors, actuators, and controls.

10-620-164**Intro to Preventative Maintenance**

1 Credit. Students will be familiar with industry trends and predictive maintenance techniques, such as, IR thermography, vibration analysis, oil analysis, and ultrasonic.

10-620-165**Maintenance, Mechanics, and Materials**

4 Credits. Learners explore the basic concepts of simple mechanical drives and drive components. Major topics include: V-belt drives, chain drives, and gear drives. Learners install and align mechanical drive system components to specified tolerances using a variety of common and specialized tools and measuring instruments including dial calipers, levels, and rules. Learners will also become familiar with industries predictive maintenance techniques.

10-620-166**Residential Electrical Wiring**

2 Credits. This course provides learners with the knowledge and skills essential for working with residential electrical systems. It covers the principles of electrical theory as applied to household wiring, safety practices, National Electrical Code (NEC) guidelines, and hands-on practice in wiring installations.

10-620-167**Smart Technology & Automation**

4 Credits. This course explores advanced concepts in smart technology and automation systems, emphasizing Programmable Logic Controllers (PLC), Human-Machine Interface (HMI), smart sensor technologies, and their integration with Information Technology (IT) infrastructure. Learners will delve into the theoretical foundations, practical applications, and emerging trends in industrial automation. Pre-requisite: Intro to Programmable Controls (10-620-149)

10-620-168**Manufacturing Technology Internship**

1 Credit. The Manufacturing Technology Internship provides students with hands-on experience in industrial manufacturing environments, focusing on the application of modern technologies and practices. Through this internship, students will gain practical skills, industry knowledge, and professional insights essential for careers in manufacturing technology.

10-620-169**Process Control Systems**

4 Credits. Students will explore and apply the fundamental concepts, components, and techniques of industrial process control. Major topics of study include: on-off, proportional, and PID control of level, flow, and temperature processes. Pre-requisite: DC and AC Fundamentals (10-620-101)

10-623-110**Lean Concepts**

3 Credits. Learners will develop techniques to identify and eliminate non-value-added activities in a process using 5S, TPM, Standard Work, and Mistake Proofing. Learners will explore the characteristics of an organizational culture necessary to support and sustain a lean enterprise.

10-623-112**Lean Six Sigma**

3 Credits. Learners will apply the DMAIC (Define, Measure, Analyze, Improve, Control) model. Learners will select a problem and define its parameters by creating a project charter, collect and analyze data to address the defined problem, implement a solution to the defined problem and create a control system to monitor and maintain the improvement.

10-623-113**Process Mapping/Problem Solving**

3 Credits. Learners will utilize the A-3 Problem Solving format to complete projects that address the root cause and improve processes by eliminating waste. Learners will develop micro and macro level process maps such as Operational, Spaghetti, and Cross Functional to identify and remove waste and to improve process flow. Learners will utilize Value Stream Mapping (VSM) techniques to create a current state map to identify waste in a process and develop a future state map to reduce and/or eliminate identified waste.

10-625-103**Human Elements-Quality on the Job**

1 Credit. Learner will develop a working definition of quality that is appropriate to today's workplace. They will relate the importance of customer focus, prevention quality model, and systems thinking as an approach to continuous quality improvement. They will demonstrate the benefits and challenges of working as a team and appreciate the benefits of diversity on a work team.

10-660-101**Introduction to DC/AC**

3 Credits. Introduces the concepts of DC and AC power and basic circuits. Using a multimeter, students learn about voltage, current, and resistance in both DC and AC circuits.

10-664-101**Team Building & Problem Solving**

1 Credit. Develop skills and utilize the tools needed to effectively solve problems within a team setting, with a focus on troubleshooting electrical systems. Learners take on leadership roles throughout the stages of team development, apply a structured problem-solving approach to diagnose and resolve electrical issues.

10-664-102**Engineering Drawings**

1 Credit. This course introduces students to the fundamentals of interpreting engineering drawings and related technical and manufacturing documentation. While the primary focus is on manufacturing processes closely connected to machining and tooling, the course also highlights essential electrical aspects relevant to modern production. Participants will gain an understanding of basic electrical schematics, wiring diagrams, and component layouts as they relate to the overall design and functionality of the product. Additionally, background information is provided on the processes used to create, assemble, and finish both mechanical and electrical components represented in the prints being studied.

10-664-103**Industrial Vision Systems/Advanced Robotics**

2 Credits. This course introduces learners to the integration of 2D cameras, lighting systems, and intelligent sensors within machine-based applications to achieve automated inspection and process analysis. Students will apply machine vision technology for tasks such as quality inspection, process monitoring, and robotic guidance. Through practical exercises, they will use vision systems to differentiate between conforming and nonconforming parts, detect object position and orientation for robotic handling. Pre-requisites: Intro to Mechatronics (10-620-163) and Intro to Programmable Controls (10-620-149) and Fundamentals of Embedded Systems (10-620-157)

10-664-104**Integrated Systems Capstone**

3 Credits. In this course, students will design and implement a fully integrated industrial automation system. By combining industrial robotics, programmable logic controllers (PLCs), pneumatics, hydraulics, and a variety of sensors, learners will create a cohesive, functional system that mirrors real-world manufacturing environments. The course also emphasizes local networking, enabling seamless communication and data exchange between all system components. Students will develop the skills to design, program, network, troubleshoot, and optimize complex automation solutions, ensuring reliable connectivity and coordinated operation. Pre-requisites: Engineering Drawings (10-664-102) and Team Building & Problem Solving (10-664-101) and Vision and Smart Sensors/Advance Robotics (10-664-103) and Manufacturing Processes (10-606-129)

10-801-136**English Composition I**

3 Credits. Learners develop and apply skills in all aspects of the writing process. Through a variety of learning activities and written documents, learners employ rhetorical strategies, plan, organize and revise content, apply critical reading strategies, locate and evaluate information, integrate and document sources, and apply standardized English language conventions.

10-801-195**Written Communication**

3 Credits. Students develop writing skills through prewriting, drafting, revising, and editing. Students complete writing assignments designed to help the learner analyze audience and purpose, research and organize ideas, and format and design documents based on subject matter and content. Students develop critical reading and thinking skills through the analysis of a variety of written documents.

10-801-196**Oral/Interpersonal Comm**

3 Credits. Focuses on developing effective listening techniques and verbal and nonverbal communication skills through oral presentation, group activity, and other projects. The study of self, conflict, and cultural contexts will be explored, as well as their impact on communication.

10-801-197**Technical Reporting**

3 Credits. Students prepare and present oral and written technical reports. Students create, but are not limited to the following reports: lab and field reports, proposals, technical letters and memos, technical research reports, case studies, and oral technical presentations. Students enroll in this advanced communication course after having completed at least the prerequisite introductory writing course. Pre-requisite: English Composition I (10-801-136) or Written Communication (10-801-195)

10-801-198**Speech**

3 Credits. Students explore the fundamentals of effective oral presentations to small and large groups. Students demonstrate competency through 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.

10-801-199**Communication Techniques/Special Pops**

1 Credit. Students will be able to do the hand formations for the alphabet and over 500 signs. In addition, students will be able to interpret and sign simple sentences, identify the characteristics of the deaf culture, American Sign Language (ASL), and the uses of signing in everyday life.

10-804-107**College Mathematics**

3 Credits. This course reviews key math concepts in algebra, geometry, trigonometry, measurement, and data. Topics include simplifying algebraic expressions, solving linear equations and inequalities with one variable, proportions, and percent applications, and working with geometric figures. It covers the Pythagorean Theorem, trigonometric ratios, and unit conversions between U.S. customary and metric systems. Data analysis focuses on organizing and summarizing data, central tendency, and measures of dispersion. Emphasis is on problem-solving, critical thinking, and logical reasoning.

10-804-109**Intermediate Algebra**

3 Credits. Fundamental operations, factoring, fractions, equations, functions, graphing, exponents, and radicals, linear equations, systems of equations, inequalities, polynomials, rational expressions, quadratics, and arithmetic and geometric sequences.

10-804-113**College Technical Mathematics 1A**

3 Credits. Topics include: solving linear equations; graphing; percent; proportions; measurement systems; computational geometry; and right triangle trigonometry. Emphasis will be on the application of skills to technical problems. Successful completion of College Technical Mathematics 1A and College Technical Mathematics 1B is the equivalent of College Technical Mathematics 1.

10-804-114**College Technical Mathematics 1B**

2 Credits. This course is a continuation of College Technical Mathematics 1A. Topics include: performing operations on polynomials; solving quadratic and rational equations; formula rearrangement; solving systems of equations; and oblique triangle trigonometry. Emphasis will be on the application of skills to technical problems. Successful completion of College Technical Mathematics 1A and College Technical Mathematics 1B is the equivalent of College Technical Mathematics 1. Pre-requisite: College Technical Mathematics 1A (10-804-113)

10-804-118**Intermediate Algebra with Applications**

4 Credits. This course offers algebra content with applications and an introduction to functions and complex numbers. Content builds upon the arithmetic of real numbers by using variable equations to solve problems. Topics include graphing and finding algebraic solutions for linear equations and inequalities, quadratic, exponential, polynomial, radical, and rational equations.

10-804-123**Math with Business Applications**

3 Credits. This course integrates algebraic concepts, proportions, percents, simple interest, compound interest, annuities, and basic statistics with business/consumer scenarios. It also applies math concepts to the purchasing/buying and selling processes.

10-804-133**Mathematics and Logic**

3 Credits. Students will apply problem solving techniques from discrete mathematics. Topics include symbolic logic, sets, algebra and base number systems.

10-804-189**Introductory Statistics**

3 Credits. Students taking Introductory Statistics display data with graphs, describe distributions with numbers, perform correlation and regression analyses, and design experiments. They use probability and distributions to make predictions, estimate parameters, and test hypotheses. They draw inferences about relationships including ANOVA.

10-804-195**College Algebra with Applications**

3 Credits. This course covers skills needed for success in Calculus and many application areas at the baccalaureate level. Topics include the real and complex number systems, polynomials, exponents, radicals, solving equations and inequalities, relations and functions, systems of equations and inequalities, graphing, and conic sections.

10-804-196**Trigonometry with Applications**

3 Credits. Topics include the unit circle, trigonometric functions, graphs, identities, equations, inverse functions, solutions of triangles, complex numbers, polar coordinates, and vectors. Pre-requisite: Intermediate Algebra with Applications (10-804-118)

10-806-109**Fundamentals of Chemistry**

2 Credits. Students convert measurements, design tables and graphs, create models, and use the scientific method. Students interpret a model of the atom and use the periodic table. They distinguish physical, chemical, and nuclear changes and identify properties of common compounds. They analyze chemical equations. Students relate technical applications to common chemical reactions. Students describe basic biomolecules.

10-806-134**General Chemistry**

4 Credits. Students will explore 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.

10-806-143**College Physics 1**

3 Credits. Presents the applications and theory of basic physics principles. This course emphasizes problem solving, laboratory investigation and applications. Topics include laboratory safety, unit conversions and analysis, kinematics, dynamics, work, energy, power, temperature and heat. Note: The course can also be met with High School Pre-Calculus with a grade of "C" or higher. Pre-requisites: College Algebra with Applications (10-804-195) and Trigonometry with Applications (10-804-196)) or College Technical Mathematics 1A (10-804-113)

10-806-154**General Physics 1**

4 Credits. Presents the applications and theory of basic physics principles. This course emphasizes problem-solving, laboratory investigation, and applications. Topics include unit conversion, vector analysis, kinematics and dynamics of particles, rotational mechanics, fluids, heat and temperature, and harmonic motion and waves. Pre-requisites: College Algebra with Applications (10-804-195) and Trigonometry with Applications (10-804-196)) or College Technical Mathematics 1A (10-804-113)

10-806-177**General Anatomy & Physiology**

4 Credits. 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. (This course also provides the foundation, and is prerequisite to, Advanced Anatomy and Physiology.)

10-806-179**Adv Anatomy & Physiology**

4 Credits. Students study using a body systems approach with emphasis on the interrelationships between form and function at the gross and microscopic levels of organization. Students experiment within a science lab including analysis of cellular metabolism, the individual components of body systems such as the nervous, neuromuscular, cardiovascular, and urinary. Students examine 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. Students receive instructional delivery within a classroom and laboratory setting. Pre-requisite: General Anatomy & Physiology (10-806-177)

10-806-186**Intro to Biochemistry**

4 Credits. 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.

10-806-186**Intro to Biochemistry**

4 Credits. 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. Pre-requisite: Students must complete a high school Chemistry course or a college Chemistry course with a grade of "C" or better, OR Fundamentals of Chemistry (10-806-109) with a grade of "C" or better. Pre-requisite: Fundamentals of Chemistry (10-806-109)

10-806-189**Basic Anatomy**

3 Credits. Examines concepts of anatomy and physiology as they relate to health careers. Learners correlate anatomical and physiological terminology to all body systems.

10-806-197**Microbiology**

4 Credits. Students examine microbial structure, metabolism, genetics, growth, and the relationship between humans and microorganisms. Students address disease production, epidemiology, host defense mechanisms, and the medical impact of microbes. Students examine the role of microbes in the environment, industry, and biotechnology. Pre-requisite: General Anatomy & Physiology (10-806-177) or Anatomy and Physiology I (20-806-207)

10-809-122**Intro to American Government**

3 Credits. This course introduces American political processes and institutions, focusing on rights and responsibilities of citizens and the process of participatory democracy. Learners will explore the following: the complexity of the separation of powers and checks and balances; the role of the media, interest groups, political parties and public opinion in the political process; and the role of state and national government in our federal system.

10-809-128**Marriage & Family**

3 Credits. This course introduces the student to the sociological aspects of marriage and family life in contemporary American society. Emphasis is on the study of cognitive, emotional, and behavioral patterns associated with courtship, love, mate selection, sexuality, and marriage. Moreover, it discusses the life span development in the family life cycle, balancing work and family, and parenting. This course is based on the premise that human attitudes, feelings, and behaviors are largely shaped and influenced by philosophy, gender, communication, and personal beliefs. Therefore, success in the institutions of marriage and family require knowledge and skills in the roles of spouse and parent and ways to apply concepts to daily life.

10-809-143**Microeconomics**

3 Credits. This course examines the behavior of individual decision makers, primarily consumers and firms. Topics include choices of how much to consume and to produce, the functioning of perfectly and imperfectly competitive markets, the conditions under which markets may fail, and arguments for and against government intervention. The student applies the fundamental tools of economics to real world problems. Pre-requisite: Economics (10-809-195) or Principles of Macroeconomics (20-809-211)

10-809-159**Abnormal Psychology**

3 Credits. The course addresses the foundations of abnormal psychology and psychological disorders, including their characteristics, possible causes, assessments, diagnostic processes, and treatments. The course includes examination of major historical and theoretical perspectives, research, sociocultural considerations, and elements of psychological wellness.

10-809-166**Introduction to Ethics: Theory and App**

3 Credits. This course provides a basic understanding of the theoretical foundations of ethical thought. Diverse ethical perspectives will be used to analyze and compare relevant issues. Students will critically evaluate individual, social and professional standards of behavior, and apply a systematic decision-making process to these situations.

10-809-172**Introduction to Diversity Studies**

3 Credits. Students draw from several disciplines to reaffirm the basic American values of justice and equality by learning a basic vocabulary, a history of immigration and conquest, principles of transcultural communication, legal liability and the value of aesthetic production to increase the probability of respectful encounters among people. In addition to an analysis of majority/minority relations in a multicultural context, the topics of ageism, sexism, gender differences,

sexual orientation, the disabled and the American Disability Act (ADA) are explored. Ethnic relations are studied in global and comparative perspectives.

10-809-188**Developmental Psychology**

3 Credits. Developmental Psychology is the study of human development throughout the lifespan. This course explores developmental theory and research with an emphasis on the interactive nature of the biological, cognitive, and psychosocial changes that affect the individual from conception to death. Application activities and critical thinking skills will enable students to gain an increased knowledge and understanding of themselves and others.

10-809-195**Economics**

3 Credits. This course is designed to give an overview of microeconomics, macroeconomics, and international economics. Concepts include scarcity, resources, alternative economic systems, growth, supply and demand, monetary and fiscal policy, inflation, unemployment and global economic issues.

10-809-196**Intro to Sociology**

3 Credits. Introduces students to the fundamental sociological concepts, including sociological perspectives, research methods, the significance of culture in society, and the socialization process. Other topics include deviance, the impact of groups on behavior, societal inequities, global changes, the role of social institutions, and social stratification.

10-809-197**Contemporary Amer Society**

3 Credits. Examine the network of interdependent social systems which affect learners as employees, family members, and citizens. In this interdisciplinary course, learners will 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, learners will expand their use of creative and critical thinking skills in evaluating information, making decisions, advocating positions, and participating in the democratic process.

10-809-198**Introduction to Psychology**

3 Credits. Students survey the multiple aspects of human behavior. This involves a survey of the theoretical foundations of human functioning in such areas as learning, motivation, emotions, personality, deviance and pathology, physiological factors, and social influences. The student forms an insightful understanding of the complexities of human relationships in personal, social, and vocational settings

10-809-199**Psychology of Human Relations**

3 Credits. 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 relationship with others at work, in the family, and in society.

10-809-216**Introduction to Education & Teaching**

3 Credits. An introductory course for students interested fields of education by observing classes in action, group discussion boards, creating lesson plans, and exploring educational resources for home, school, and community outreach.

10-834-110**Elem Algebra with Applications**

3 Credits. This course offers traditional algebra topics with applications. Learners develop algebraic problem solving techniques needed for technical problem solving and for more advanced algebraic studies. Topics include linear equations, exponents, polynomials, rational expressions, and roots and radicals. Successful completion of this course prepares learners to succeed in technical mathematics courses.

10-890-101**Professional Development Seminar**

1 Credit. Students discover employment strategies designed to assist in securing employment. The course will help develop an awareness of personal and academic skills as they relate to the job seeking process. Topics of study include personal and skill assessments, research of employment sources, completion of application forms, formation of professional resumes and portfolios, composition of various business letters, interviewing skills, work-based learning activities and job offer evaluation.

10-999-970**Electric Lineworker Apprenticeship Credits**

39 Credits. This course is used for transferring Electric Lineworker apprenticeship credits for the Technical Studies Journey worker program.

10-999-972

Elective: 3 Credits.

10-999-973

Elective: 2 Credits.

10-999-974

Elective: 5 Credits.

10-999-975

Elective: 3 Credits.

10-999-976

Elective: 1 Credit.

10-999-977

Diversity & Ethnic Studies Requirement: 3 Credits.

10-999-978

Health & Wellness Requirement: 3 Credits.

10-999-979

Health & Wellness Requirement: 1 Credit.

10-999-980

Foreign Language Requirement: 3 Credits.

10-999-981

Natural Science Requirement: 5 Credits.

10-999-982

Natural Science Requirement: 4 Credits.

10-999-983

Natural Science Requirement: 3 Credits.

10-999-984

Social Science Requirement: 3 Credits.

10-999-985

Social Science Requirement: 3 Credits.

10-999-986

Humanities Requirement: 3 Credits.

10-999-987

Humanities Requirement: 3 Credits.

10-999-988

Humanities Requirement: 1 Credit.

10-999-989

English Requirement: 3 Credits.

10-999-990

Math Requirement: 5 Credits.

10-999-991

Math Requirement: 4 Credits.

10-999-992

Math Requirement: 3 Credits.

10-999-993

Elective: 6 Credits.

10-999-994

Elective: 5 Credits.

10-999-995

Elective: 4 Credits.

10-999-996

Elective: 3 Credits.

10-999-997

Elective: 3 Credits.

10-999-998

Elective: 2 Credits.

10-999-999

Elective: 1 Credit.

10-999-999**Elective Credit**

6 Credits.

20-801-204**Intro to Literature**

3 Credits. Recommended as a first course in literary analysis, this course introduces students to the major genres of literature and addresses issues related to writing about literature and/or other texts. Pre-requisite: English Composition I (10-801-136) or Written Communication (10-801-195)

20-801-217**American Literature: Beginnings to 1865**

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

20-801-218**American Literature: 1865 to Present**

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

20-801-223**English Composition 2**

3 Credits. Advanced Composition continues the study of expository writing for students who wish to attain advanced skills in managing the written language. Students learn critical reading and thinking skills, including textual analysis and evaluations. Pre-requisite: English Composition I (10-801-136) or Written Communication (10-801-195)

20-802-211**Spanish I**

4 Credits. For students beginning the study of Spanish. Emphasizes development of basic communicative skills through practice in listening, speaking, reading and writing. Stresses vocabulary and grammar to enhance students' ability to speak and write in Spanish. Study of customs and values provides an increased awareness of Spanish speaking cultures. On completion students are expected to participate in uncomplicated conversations on everyday topics.

20-803-211**U.S. History to 1877**

3 Credits. The origin and growth of the United States is studied. Surveys American political, economic and social development from the founding of the colonies through the civil war.

20-803-212**U.S. History 1877 to Present**

3 Credits. Introductory survey course covering political, social and cultural trends in the United States between the end of the Civil War and the present. In addition to presenting what happened in the United States during this period, the course explores the diverse sources historians use to explain the past.

20-803-234**Gender & Women's Global History**

3 Credits. Introduction to gender and women's history from the 19th century to the present with a global perspective. Students will be asked to think critically about the power relations that affect the lives of diverse women in the U.S.-diverse in terms of race, class, ability, sexuality and other markers of power-and will be asked to contemplate the positions of diverse women from around the world.

20-804-211**Quantitative Reasoning**

4 Credits. This course is intended to develop analytic reasoning and the ability to solve quantitative problems. Upon completion of this course, the learner will be able to analyze logical arguments, employ counting principles, utilize probability models and rules, employ descriptive statistics, apply inferential statistics, apply linear and non-linear mathematical models, develop graphical representations, and apply principles of geometry. This course satisfies the mathematics requirement for the Liberal Arts-Associated of Arts degree. (Students must have Pathways to Quantitative Reasoning (77854-701) OR ACT score 17+ OR Accuplacer next generation Arithmetic 255+ OR TABE 11&12 score 4+.)

20-804-212**College Algebra**

4 Credits. Includes fundamental topics covered in Intermediate Algebra with a more careful look at the mathematical details and a greater emphasis on the concept of function. Covers quadratic, polynomial, rational, exponential and logarithmic functions, equations and inequalities; the use of matrices and determinants in solving linear systems of equations, solving non-linear systems; sequences and series. Note: The course can also be met with an ACT test score 17+ or Accuplacer next generation Arithmetic score 255+ OR TABE 11&12 score 4+ Pre-requisite: Intermediate Algebra with Applications (10-804-118) or Geometry (10-804-110)

20-804-229**Math Analysis**

5 Credits. This course is an integrated treatment of topics from College Algebra and Trigonometry to lay a sound foundation for higher courses in mathematics. This course is equivalent to a Precalculus course. Upon completion of this course, students will be able to use fundamental concepts of algebra, perform computations with linear, quadratic,

polynomial, rational, radical, exponential, logarithmic, conic, systems of linear equations, and trigonometric functions, apply trigonometric identities, solve right and oblique triangles, and perform operations with series. Note: The course can also be met with an ACT test score 17+ OR Accuplacer next generation Arithmetic score 255+ OR TABE 11&12 score 4+. Pre-requisite: 20804-229 Pre for Math Analysis Intermediate Algebra with Applications (10-804-118) or Elem Algebra with Applications (10-804-110)

20-804-229

Math Analysis

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20-804-231

Calculus and Analytic Geometry 1

5 Credits. Upon completion of this course, students will be able to apply the fundamental principles of differential and integral calculus, including concepts of basic properties of limits, rate of change of functions, continuity, derivatives of algebraic and elementary transcendental functions, their products quotients and compositions, curve sketching, finding maxima and minima, indefinite and definite integration with applications, and analytic geometry. This course is designed for students planning on studying further topics in mathematics, science, and engineering. Pre-requisite: Trigonometry with Applications (10-804-196) or Math Analysis (20-804-229)

20-804-232

Calculus and Analytic Geometry 2

5 Credits. This course is designed for students of mathematics, science, and engineering. Topics covered include the techniques of integration, numerical approximation of definite integrals, applications of integration and an introduction to first order differential equations, analysis of infinite sequences and series, parametric equations and derivatives of parametric curves, polar coordinates in the plane and integrals using polar coordinates, the analytic geometry of the conic sections, an introduction to vectors in two and three dimensions, scalar and vector cross products, graphs of quadric surfaces. Pre-requisite: Calculus and Analytic Geometry 1 (20-804-231)

20-806-207

Anatomy and Physiology I

4 Credits. Features lectures and laboratory dealing with the human body as an integrated structural and functional unit, including basic anatomical and directional terminology, fundamental concepts and principles of cell biology, histology, integumentary, skeletal, muscular, endocrine, and nervous systems, and the special senses. It includes dissection of various fresh and preserved materials as well as examination of a human cadaver. This course is the first semester of a two-semester sequence. Note: The course co-requirements can also be met with high school chemistry or college chemistry with a minimum grade of C.

20-806-207

Anatomy and Physiology I

4 Credits. Features lectures and laboratory dealing with the human body as an integrated structural and functional unit, including basic anatomical and directional terminology, fundamental concepts and principles of cell biology, histology, integumentary, skeletal, muscular, endocrine, and nervous systems, and the special senses. It includes dissection of various fresh and preserved materials as well as examination of a human cadaver. This course is the first semester of a two-semester sequence. Note: The course co-requirements can also be met with high school chemistry or college chemistry with a minimum grade of C. Co-requisite: -20806-207 Co-Req for Anatomy and Physiology I

20-806-208

Anatomy and Physiology II

4 Credits. Anatomy and Physiology II features lectures and laboratory exercises dealing with the human body as an integrated structural and functional unit including the cardiovascular system, lymphatic system and immunity, respiratory system, digestive system and metabolism, urinary system, fluid/electrolyte balance and acid/base balance, and reproductive system. Note: this is the second semester course of a two-semester sequence and is not acceptable where a one-semester Anatomy and Physiology course is required. Pre-requisite: Anatomy and Physiology I (20-806-207)

20-806-209

College Chemistry I

5 Credits. General college chemistry which includes the topics of measurement, chemical nomenclature, chemical reactions and stoichiometry, atomic structure, gas laws, thermochemistry, chemical bonding, and solution chemistry. The course is for students who need the first one of two semesters of what is typically considered freshman university-level chemistry for science majors and university transfer students. Laboratory work assists in understanding chemical concepts and developing problem-solving skills. Co-requisite: College Algebra (20-804-212)

20-806-210**General Ecology**

4 Credits. Covers organism/environment interrelationships, including human impacts and changes. Discusses evolution, ecological processes, species interactions, communities, and local ecosystems. Designed for those interested in natural resources.

20-806-212**College Chemistry II**

5 Credits. College Chemistry II is a continuation of 20-806-209. This course covers the principles and applications of organic chemistry, reaction kinetics, equilibrium, thermodynamics, electrochemistry, coordination compounds, nuclear chemistry, and environmental chemistry. Lab activities explore traditional analytical chemistry techniques, making extensive use of computer-assisted data analysis. This course involves rigorous quantitative problem-solving, and a solid mathematics background is recommended. Pre-requisite: College Chemistry I (20-806-209)

20-806-215**Environmental Science**

3 Credits. Develop an understanding of environmental concerns and current issues including water resources, total land use, air pollution, biocides, energy use, population, pollution, and health. Examines, ecological, economic, historical, and philosophic views of issues.

20-806-223**University Physics 1—Calculus Based**

5 Credits. This is the first course in a two-semester sequence using algebra, trigonometry, and calculus to introduce basic concepts of physics. Topics covered include one-dimensional and two-dimensional kinematics, vectors, one-dimensional and two-dimensional dynamics, rotational kinematics and dynamics, momentum, and temperature and heat. Additional topics may include gravitation, thermodynamics, simple harmonic motion, and wave motion as time allows. Pre-requisite: Calculus and Analytic Geometry 1 (20-804-231)

20-806-230**Weather Fundamentals**

4 Credits. Students will understand the basic concepts and principles of meteorology. Students will be able to interpret and make basic weather forecasts as well as be able to explain basic atmospheric phenomena and climate change.

20-806-234**General Biology**

4 Credits. The course examines fundamental principles of biology including cell structure and function, energy production by cells and ecosystems, reproduction and genetics, evolution, ecology and a survey of biodiversity. The class emphasizes application of the scientific method to problem-solving. The course is designed to provide a solid foundation for advanced courses in biology as well as providing scientific literacy for all students.

20-807-203**Stress Management: Fitness for Life**

1 Credit. The course explores the nature of stress, determinant causes, the physiological and psychological reactions to stress and will introduce and implement physiological, cognitive, and behavioral stress management techniques.

20-807-204**Physical Fitness for Life**

1 Credit. Examines the relationship of physical fitness and activity to healthy lifestyles and wellness. Students will assess the current level of fitness, then plan and implement a personal fitness program.

20-809-206**Intro to Women's Studies**

3 Credits. This course introduces students to women's diverse experiences and examines gender in public and private life, culture, and institutions. It explores how gender, race, class, and sexuality intersect and shape identity and oppression. Students engage with key texts in women's and gender studies, reflect on personal experiences, and develop tools for critical analysis and social change. Emphasis is placed on varied perspectives and learning through writing.

20-809-287**Principles of Macroeconomics**

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

20-815-210**Art History: Renaissance to Modern**

3 Credits. Survey of the development of European and American art and architecture from the time of the early Renaissance in Italy through the first quarter of the 20th century. Emphasis is given to the form and meaning of a select group of artworks and buildings, their stylistic tendencies and respective movements in the history of art and the socio-political and cultural contexts for these movements.

20-890-201**Foundations of University Transfer and Learning**

1 Credit. This course introduces the culture of collegiate academics and prepares students to succeed and successfully transfer to a baccalaureate program. Coursework develops

critical thinking skills, educational, and financial preparedness for decision-making foundational to university-level success.

30-316-301

Introduction to the Meat Industry

1 Credit. This course will give students the opportunity to explore the various aspects of the meat industry. Students will gain a broad understanding of the components that comprise the meat industry. An emphasis will be placed on the history of meat science, the modernization that has occurred throughout history and where we are today.

30-316-302

Humane Handling, Slaughter, and Fabrication

2 Credits. This course explores the transition from muscle to meat. Students will gain in-depth knowledge of the importance and principles of humane pre-slaughter handling and stunning with emphasis on compliance with the Humane Slaughter Act and protection of meat quality and worker safety. Sanitary dressing procedures will be presented with emphasis on meat quality, safety, and compliance with inspection-related regulations. Students will gain knowledge and experience in the fabrication and storage of fresh cuts from common meat animal species.

30-316-303

Processed Meat Manufacturing

2 Credits. This course will focus on the study and practice of commercial meat processing methods including curing, smoking, sausage manufacturing and the manufacturing of ready to serve meat products. The production of common types of processed meat products will be included such as fresh sausages, dry and semi-dry sausages and cured meat products. Emphasis will be given to factors influencing final eating quality and food safety.

30-316-304

Meat Marketing and Merchandising

2 Credits. This course introduces students to meat retail operations through hands-on labs, lectures, and field trips. Students learn to price and market meat products, manage inventory, and provide customer service. Emphasis is placed on sanitation, safety, equipment use, and product handling. The course prepares students for entry-level meat cutting and clerk roles in butcher shops and helps them develop sales plans for their own products.

30-316-305

Artisanal Modern Meat Butchery Internship

2 Credits. Students will obtain professional work experience with a cooperating employer in meat production and processing. This experience will occur off campus and students will be expected to spend a set amount of time with their assigned employer.

30-443-310

Fundamentals of Building Trades Safety

4 Credits. Students develop safety consciousness and practice approved construction site safety and health procedures. Students protect themselves by using hearing, eye, respiratory, foot, and other personal protection equipment. Students will learn safe and efficient techniques to repair existing building and build new structures.

30-443-311

Basic Carpentry

3 Credits. Students build and repair walls, shelving, and other building related structures. They use a variety of hand and power tools; choose the associated building materials. They repair and install windows, doors, stairs, and other building components.

30-443-312

Basic Electrical

3 Credits. Students repair, replace, and install branch circuits according to NEC requirements. They install and maintain outlets, lighting systems, and other minor building electrical devices. They practice safe use of tools and materials associated with electrical work.

30-443-314

Blueprint Reading for Construction

2 Credits. Students learn basic sketching and print reading as applied to the construction trade. Students develop and read working drawings including specifications, line and symbol identification, dimensions, and scales.

30-443-331

Basic Plumbing

3 Credits. Students install and repair minor plumbing, including faucets, and hot water heaters. They are careful to maintain health and safety. They clean drains and unplug fixtures. They use basic plumbing hand and power tools and materials appropriately.

30-504-500

Overview of Patrol Response

2 Credits. Through classroom lecture, and on-campus lab, and WI Department of Justice integration exercises students will learn and apply skills addressed in the following WI Department of Justice 720 Academy curriculum framework Phase I topics: Critical Thinking and Decision-Making, Basic Response (RESPOND), Radio Procedures, Introduction to TraCS, Traffic Law Enforcement I, First Aid, CPR/AED, and Naloxone/Narcan, and Physical Fitness. This course will also include the WI DOJ 720 Academy Integration Exercises.

30-504-501

Physical Fitness

1 Credit. Through classroom lecture and on-campus lab students will apply Phases I-III Physical Fitness WI Department of Justice 720 Academy curriculum framework program requirements and Officer Wellness Suicide Prevention.

30-504-502

Application of Investigations

1 Credit. Through classroom lecture, on-campus lab, and WI Department of Justice 720 Academy integration exercises students will learn and apply skills addressed in the following Phase III topics of the Department of Justice 720 Academy curriculum framework: Ethics II: Moral Reasoning and Professional Conduct, Cultural Competence II, Interrogations, Testifying in Court, Crimes III and Physical Evidence Collection.

30-504-503

Overview of Criminal Justice

1 Credit. Through classroom lecture and WI Department of Justice 720 Academy integration exercises, students will learn and apply skills addressed in the following WI Department of Justice 720 Academy Phase I curriculum framework topics: Academy Orientation, Fundamentals of Criminal Justice, Ethics I, Cultural Competence, Agency Policy, and Professional Communication Skills I.

30-504-504

Principles of Emergency Vehicle Response

2 Credits. Through classroom lecture, and on-campus lab, and WI Department of Justice 720 Academy integration exercises students will learn and apply skills addressed in the following Department of Justice 720 Academy Phase II topics: Emergency Vehicle Operation and Control (EVOC) and Vehicle Contacts II.

30-504-505

Sensitive Crimes

2 Credits. Through classroom lecture, and on-campus lab and WI Department of Justice 720 Academy integration exercises, students will learn and apply skills addressed in the following Department of Justice 720 Academy curriculum framework Phase III topics: Domestic Violence, Juvenile Law, Victims, Sexual Assault, and Child Maltreatment. The DOJ Phase III Written Examination will be administered in this course.

30-504-506

Overview of Investigations

2 Credits. Through classroom lecture, on-campus lab, and WI Department of Justice 720 Academy integration exercises students will learn and apply skills addressed in the following Department of Justice 720 Academy curriculum framework Phase I topics: Constitutional Law I, Crimes I, Interviews, and Report Writing I. The DOJ Phase I Written Examination will be administered in this course.

30-504-507

Application of Traffic Response

3 Credits. Through classroom lecture, and on-campus lab and WI Department of Justice integration exercises, students will learn and apply skills addressed in the following Phase III topics from the WI Department of Justice 720 Academy curriculum framework: Traffic Law Enforcement - Core and

Radar, Traffic Crash Investigations & Incident Management, Operating a Motor Vehicle While Intoxicated (OMVWI), Standardized Field Sobriety Tests (SFST), Hazardous Materials and Weapons of Mass Destruction (WMD), Incident Command Systems and NIMS, and Report Writing.

30-504-508

Principles of Investigations

1 Credit. Through classroom lecture, and on-campus lab, and WI Department of Justice 720 Academy integration exercises students will learn and apply skills addressed in the following Phase II topics of the WI Department of Justice 720 Academy curriculum framework: Constitutional Law II, Physical Evidence Collection, and Crisis Management. The Phase II Written Exam will be given in this course.

30-504-509

Principles of Tactics

5 Credits. Through classroom lecture and on-campus lab and integration exercises, students will learn and apply skills addressed in the following Phase II topics from the Department of Justice 720 Academy curriculum frameworks including: Professional Communication Skills II, DAAT, Firearms II, Tactical Response, and Tactical Emergency Critical Care For Law Enforcement Officers.

30-504-510

Overview of Tactics

1 Credit. Through classroom lecture, and on-campus lab and WI Department of Justice 720 Academy integration exercises, students will learn and apply skills addressed in the following Department of Justice 720 Academy curriculum framework Phase I topics: Fundamentals of Firearms, Vehicle Contacts I, Officer Wellness I, and DAAT I.

30-504-511

Scenario Assessment

1 Credit. This course, Scenario Assessment, is part of the embedded Wisconsin Department of Justice Certification Track Law Enforcement Academy (720 Hours). In this course, the learner will complete the final scenario assessment. Student must meet the requirements of the Wisconsin Department of Justice Standards for the 720 Hour Academy.

30-531-100

EMR/EMT 1

Prepares students to perform emergency medical care sanctioned by the WI Dept. of Health Services, EMS Section scope of practice for the EMR/EMT. Includes foundational knowledge and skill application for both EMR/ EMT in the following areas: the EMS system, EMR/EMT responsibilities, legal and ethical standards, patient movement techniques, pathophysiology, body systems and functions, patient assessment and treatment, pharmacology, shock and resuscitation, age-specific patient considerations, special medical considerations, medication administration, airway anatomy

and management. Successful completion prepares the learner for WI EMR Certification and the NREMT EMR written examination.

30-531-101

EMT 2

This curriculum prepares students to perform emergency medical care sanctioned by the WI Dept. of Health Services, EMS Section scope of practice for the Emergency Medical Technician (EMT). Includes foundational knowledge and skill application for EMT in the following areas: the EMS system, EMT responsibilities, legal and ethical standards, patient movement techniques, pathophysiology, body systems and functions, patient assessment and treatment, pharmacology, shock and resuscitation, age-specific patient considerations, special medical considerations, medication administration, airway anatomy and management. Successful completion prepares the learner for the NREMT EMT written examination. Prerequisite: A Wisconsin EMR License or equivalent is required to demonstrate competency in Wisconsin Curriculum for Emergency Medical Responder in addition to the competencies and criteria outlined below. Completion of the EMR/EMT 1 course or prior learning assessment at a Wisconsin Technical College System college is equivalent to Wisconsin EMR Certification.

30-531-103

Advanced EMT

This curriculum expands the role and skills of the Emergency Medical Technician (EMT). Skills will include obtaining intravenous and intraosseous access, intranasal, intramuscular and subcutaneous medication administration, and fluid therapy. Extensive patient assessment knowledge and skills and treatment decision making skills are integrated throughout the curriculum. Successful completion prepares the learner for the National Registry AEMT written examination.

* This curriculum is designed to address all three sets of external standards listed above. Each competency or criterion that is identified with an asterisk is considered an advanced skill of the curriculum, based upon "optional" skills, equipment or medications from the Wisconsin AEMT Scope of Practice. For AEMT, these include the following medications: Ketorolac and Ondansetron. Prerequisite: A current Wisconsin EMT license is required.

30-531-104

Advanced EMT-Clinical

This course provides a WI licensed EMT holding a valid AEMT Training Center Training permit the opportunity to enhance learning through the practice of clinical, field, and high-fidelity simulation experiences under the supervision of instructors or approved preceptors. Successful completion of this course requires the student to meet all clinical/field competencies. This course runs concurrently with AEMT 30-531-103.

30-531-310

RN to EMT Basic Transition Course

2 Credits. This course is designed for current licensed Registered Nurses to bridge into EMT positions. At the completion of the course, students will be eligible for certification as an Emergency Medical Technician. Pre-requisite: Current and Valid RN licensure

30-543-300

Nursing Assistant

2 Credits. Students examine federal and state requirements to become certified nursing assistants and complete the classroom and lab portion of the course before attending clinical. Students demonstrate interpersonal communication, personal care, and basic nursing skills while providing care to clients under the supervision of an instructor. Students provide restorative care, protect client rights, and demonstrate care of the client with dementia. Students demonstrate and prepare for successful completion of the state certification test of written and skills exam, which is required for entry on the Wisconsin Nurse Aide Registry. Inclusion on the state registry is necessary for employment as a CNA.

30-804-313

Occupational Math

1 Credit. Students taking Occupational Math compute with rational numbers. Students use ratio and proportion and formulas to solve problems. In each topic area, students solve application problems.

30-812-301

Driver Education Classroom Instruction

3 Credits. The course places emphasis on traffic safety education curriculum information selection, development and use, as well as available instructional resources and materials. Coursework assignments involve the completion of individual observation and teaching activities and the culminating development of an effective driver education classroom curriculum.

30-812-302

Driver Education In-Car Instruction

3 Credits. The course will examine the role, aims and objectives, as well as teaching-based approaches of laboratory-oriented programs in Driver and Traffic Safety Education. Direct observation and practice experience during the behind-the-wheel activities will be required for students with emphasis on incorporating various teaching techniques during this time.

30-812-303

Driver Education Safety

3 Credits. The safety phase of Driver Education will introduce the basic concepts and principles of safety and loss prevention. The application and utilization of these concepts and principles to safety programs within our society is a primary

objective of this course. Emphasis will be placed on various teaching techniques as it relates to school and roadway safety, and development of various risk control/safety awareness within that society.

31-404-337

Auto Body Mechanics Chassis

2 Credits. Students evaluate, diagnose, and repair damage to automotive drivetrains, steering and suspension systems, and braking systems as it applies to collision damaged vehicles.

31-404-338

Auto Body Mechanics HVAC & Restraints

2 Credits. Students evaluate, diagnose, and repair damage to automotive cooling, air conditioning, fuel, intake, exhaust, and restraints systems as it applies to collision damaged vehicles.

31-404-347

Electrical Fundamentals

2 Credits. Students gain the ability to apply the fundamentals of electricity and electronics with automotive as its emphasis. Students apply the principles of Ohm's law, circuit requirements, current flow, voltage, electrical schematics and symbols. Students gain a working knowledge of scan tools and test meters. Students recognize the importance of Advanced Driver Assistance Systems and the other electrical safety devices built into the motor vehicle and diagnoses and repairs electrical problems.

31-405-356

Auto Body Welding

3 Credits. Students weld light gauge sheet metal using MIG welding. Students learn personal safety and safe work procedures during welding processes which include Oxyfuel, MIG, & Resistance Spot Welding, as well as Oxyfuel and Plasma Cutting. They perform Aluminum MIG welding and MIG brazing. Pre-requisite: Buffing & Detailing (31-405-364)

31-405-364

Buffing & Detailing

2 Credits. The student learns safe work procedures and uses vehicle cleaning equipment to detail vehicles. The student learns the proper methods to buff and polish automotive finishes.

31-405-365

Bolt-On Panels & Dent Repair

4 Credits. Students remove, replace and adjust hoods, fenders, bumpers, and doors. They repair minor dents on steel body panels.

31-405-366

Fundamentals of Painting

2 Credits. The student learns safe work procedures for personal safety and environmental compliance. Students perform surface preparation procedures and learn the proper use and care of refinishing equipment. Students mix refinish materials and apply it to practice panels.

31-405-367

Damage Analysis, Estimating, & Customer Service

3 Credits. The student analyzes damaged vehicles and estimates repair costs with a computer. The student uses electronic measuring systems to diagnose damage to vehicle structure and repairs damage using proper equipment and safety procedures. The student participates in customer service scenarios. Pre-requisite: Fundamentals of Painting (31-405-366) and Auto Body Welding (31-405-356)

31-405-368

Structural Repair

3 Credits. The student uses proper procedures and equipment operation to repair and replace damaged structural panels on unibody and full frame vehicles. Prerequisites: Damage Analysis, Estimating, & Customer Service (31-405-367)

31-405-369

Intermediate Painting

2 Credits. The student safely mixes and applies various refinish products to a vehicle. The student sprays primers, waterborne base colors, and clear coats on vehicles. Prerequisites: Structural Repair (31-405-368)

31-405-370

Advanced Painting

3 Credits. The student inspects and analyzes paint defects and determines corrective action. The student learns to develop a refinish repair plan and perform the proper safety procedures. Matching existing vehicle finish with blending techniques is performed on vehicles. Prerequisites: Intermediate Painting (31-405-369)

31-405-371

Auto Collision Internship

1 Credit. In an occupational setting, students apply technical theory and skills by performing light autobody repair. Students practice the necessary personal and professional skills essential to be successful auto collision and refinishing technician.

31-408-301**Bricklaying/Masonry I**

5 Credits. Students study the materials and processes used in masonry. Students develop an understanding of masonry work and learn to communicate using trade terms. Students learn to lay bricks and blocks by building straight walls, corners, and jambs. Students develop skills in handling and caring for bricklaying tools, spreading mortar, laying bricks and blocks to a line, and striking joints.

31-408-302**Bricklaying/Masonry II**

5 Credits. Students build their masonry knowledge and skills by practicing trade techniques using masonry materials in a variety of bonds and patterns. Students become proficient at mixing mortar and setting up to work. Students learn to recognize quality structures and appreciate the beauty of a properly struck and finished wall. Students build speed and proficiency by completing masonry projects.

31-408-303**Bricklaying/Masonry III**

5 Credits. Students develop skill in detailed and technical masonry work including building arches, floors, and fireplaces, as well as walls. Emphasis is on accepted trade standards and practices. Pre-requisite: Bricklaying/Masonry II (31-408-302)

31-408-304**Bricklaying/Masonry IV**

5 Credits. Students build a major permanent project(s) using masonry materials and tools to develop their skills in plan reading, estimating, and trade techniques. Pre-requisite: Bricklaying/Masonry II (31-408-302)

31-408-306**Sketching and Print Reading**

2 Credits. Students learn basic sketching and print reading as applied to the masonry trade. Students develop and read working drawings including specifications, line and symbol identification, dimensions, and scales.

31-408-307**Estimating**

2 Credits. Students apply basic methods of estimating and develop systems for doing quantity surveys. Students learn to use mathematics and their masonry construction knowledge to estimate materials, time, and cost for projects.

31-408-308**Construction Safety and Health**

1 Credit. This course introduces students to construction safety principles associated with OSHA, the "Focus Four Hazards" that include fall hazards, caught-in-between hazards, struck-by hazards and electrical hazards. Students will learn to properly utilize personal protective equipment, fall protection, scaffold and ladders, and other construction safety related equipment to help avoid health hazards and injury.

Students will have the opportunity to earn the OSHA 10-hour certification credential.

31-413-303**Electric Power Distribution Fund 1A**

4 Credits. The student is introduced to basic electrical theory using Ohm's Law to compute series, parallel and combination circuits. Concepts of work, power, energy, and magnetism will be studied. Student learns basic line construction materials such as insulator design, pole information, wire size and resistance, with hands on practice on communication signals for line workers. Throughout the course there is an emphasis on safety for line workers.

31-413-304**Electric Power Distribution Fund 1B**

4 Credits. The student is introduced to distribution and transmission systems as well as switchyards and substations. Students will learn about conductor sizing while beginning to gain knowledge on overhead distribution systems and specific areas of guying and anchoring concepts. Throughout the course there is an emphasis on safety for line workers.

31-413-305**Electric Power Dist Fund 1C-App Lab**

5 Credits. The student is introduced to power line construction techniques including overhead line design, overhead structure specifications, overhead distribution line construction and stringing/sagging overhead line conductors. The course includes basic hydraulics and line truck operation. Ropes, knots, and splices associated with the line workers trade will be learned and used throughout the course. Various items associated with line work will be learned and identified. Students will learn aerial climbing tools and techniques. The student will use hand and power tools associated with the line workers trade. Throughout the course there is an emphasis on safety for line workers.

31-413-306**Electric Power Dist Fund 2A**

4 Credits. The student is introduced to the theory of three-phase electrical power systems, including wye and delta systems and how to compute three phase calculations. Student studies single- and three-phase transformer; construction, principles of operation, connections as well as secondary power supply systems. Skills in electrical system grounding principles and over voltage equipment will be developed. Underground transformers and switchgear will also be covered, and the troubleshooting involved with them will be reviewed. Safety topics related to electrical line work will be highlighted.

31-413-308**Electric Power Dist Fund 2C-App Lab**

4 Credits. The student learns and installs various electrical apparatus in a lab environment. Overhead transmission structures are constructed. The installation of protective grounding is practiced and live line work with the use of rubber gloving and rubber hose is practiced on de-energized

lines. Underground-related equipment is used. Students will terminate underground cable and use cable locating equipment. Student installs secondary service at the meter mast. Student will operate a modern combination trencher-cable plow. Safety for all lab activities is practiced. Pre-requisite: Electric Power Dist Fund 1C-App Lab (31-413-305) or

31-413-309

Electric Power Dist Fund 2B

3 Credits. The student is introduced to electrical power line apparatus such as reclosers, sectionalizers, voltage regulators, and distribution meters. RL, RC, and RLC Circuits will be reviewed and calculated. A strong emphasis will be made to cover topics related to distribution power troubleshooting, and transmission structures. Students will learn various ruling span techniques for stringing conductor. Safety related topics are included. Pre-requisite: Electric Power Distribution Fund 1B (31-413-304)

31-413-310

EPD Career Exploratory Practicum

1 Credit. Students will practice their hands-on skills in overhead and underground construction using employer work-based learning experiences as they get better prepared in the job tasks they will use during the first months of employment. Pre-requisite: Electric Power Dist Fund 2A (31-413-306)

31-420-320

Intro to Print Reading

1 Credit. Introduction to reading and interpreting prints and industrial drawings. Interpretation of views, projection, lines, section, working and assembly drawings relative to manufacturing processes and order of operations. This course integrates math skills with print reading.

31-420-321

Machine Shop Safety Practices & Maintenance

1 Credit. The safety unit includes instruction in topics such as lockout-tagout, personal protective equipment, OSHA compliance, material safety data sheets, handling and storage of materials and emergency response procedures.

31-420-322

Intro to Manual Mill

1 Credit. This course will provide instruction and practice in the use of milling machines and various processes performed on them. Students will learn about mills, associated processes, milling machine tooling, and related safety/maintenance issues.

31-420-323

Intro to Manual Lathe

1 Credit. This course will provide instruction and practice in the use of lathe machines and various processes performed on them. Students will learn about lathe, associated processes, lathe machine tooling, and related safety/maintenance issues.

31-420-324

Manual Machine Speeds & Feeds

1 Credit. Students will determine cutting speeds for high speed steel tooling on manual mill and lathes. Students will calculate feed per tooth and inches per minute for various cutters. Students will calculate proper spindle speeds for twist drills.

31-420-325

Tooling & Materials of Manufacturing

1 Credit. Students will learn about of various types of tooling used in the industry. Students will learn about the materials they are machining and how the materials are processed.

31-420-326

Intro to Quality Practices & Measurement Equipment

1 Credit. Students will perform quality practices used by machine shops for various part checks. Students will learn how to fill out data sheets and use various parts specific measurement equipment.

31-420-327

Intro to Surface Grinding

1 Credit. Students complete basic grinding operations to include installation of grinding wheel, work holding techniques, speeds and feeds and problem solving. Use profilometer to measure roughness average and grind parts specific dimensions.

31-420-328

Intro to Mastercam Mill 2D

1 Credit. Introduction to computer aided machining of 2 dimension parts using CAM software. Students will use CAM software to create and machine pockets, slots, bosses, holes and engraved details in CNC milled parts.

31-420-329

Advanced Manual Mill

1 Credit. This course will be a continuation of Intro to Manual Mill. Students will practice in the use of milling machines and various processes performed on them. Students will learn about rotary tables, t-slot cutters and boring bars. Co-requisite: Intro to Manual Mill (31-420-322)

31-420-330

Advanced Manual Lathe Machine

1 Credit. This course is a continuation of Intro to Manual Lathe Machine. Students will practice the use of lathe machines and various processes performed on them. Students will learn about lathe, four jaw chucks, face plates, taper attachments and collet puller. Co-requisite: Intro to Manual Lathe (31-420-323)

31-420-331**Advanced Print Reading**

1 Credit. Print reading is learning a new language in graphic or symbolic form for the purpose of manufacturing or assembling mechanical components. Units include: orthographic projection, sketching, dimensioning, machine process call-out, tolerance, finish, title blocks, notes, hole types, threads, symbols and callouts. Co-requisite: Intro to Print Reading (31-420-320)

31-420-332**Advanced Measuring Equipment**

1 Credit. Provides instruction in the care and use of measurement tools and inspection equipment necessary to maintain quality standards in the manufacturing environment. Semi-precision through high-precision measurement tools, gages, inspection sheets and processes, direct and comparative inspection methods will be covered.

31-420-333**Intro to Mastercam Lathe**

1 Credit. Introduction to computer aided machining of 2 dimension parts using CAM software. Students will use CAM software to create lengths, diameters, chamfer, counterbore, external threads and parting off in CNC lathes.

31-420-334**Intro to Computer Numerical Control Prog Mill**

1 Credit. Students apply skills in the programming and operation of a machining center using G-code. Explore basic metrology, tool selection and work hold devices. Rapid and Linear Interpolation, Circular Interpolation, Drilling, Bolt Circles, Subroutines and Subprograms, Cutter Compensation and Pocket Milling.

31-420-335**Intro to Computer Numerical Control Prog Lathe**

1 Credit. An introduction to planning and writing programs for computer numerically controlled turning centers using G and M code. Students learn to write basic programs for CNC lathes, proof programs and run programs in CNC machine tools. Programming basics will include multiple tool programs, tool nose compensation and canned cycles. Co-requisite: Basic CNC Operation Lathe (31-420-337)

31-420-336**Basic CNC Operation Mill**

1 Credit. The setup of CNC Machining centers is covered in this course. Applications include selection of tools and workholding devices, setting tool offsets and work coordinate positions, calling programs, proofing programs, and minor edits and machine adjustments. Co-requisite: Intro to Computer Numerical Control Prog Mill (31-420-334)

31-420-337**Basic CNC Operation Lathe**

1 Credit. The setup of CNC turning centers is covered in this course. Applications include selection of tools and workholding devices, setting tool offsets and work coordinate positions, calling programs, proofing programs, and minor edits and machine adjustments. Co-requisite: Intro to Computer Numerical Control Prog Lathe (31-420-335)

31-420-340**Geometric Dimensioning & Tolerance**

1 Credit. Recognition and interpretation of geometric dimensioning and tolerancing symbols and application as applied to prints for the manufacture of parts. Co-requisite: Advanced Measuring Equipment (31-420-332)

31-420-340**Geometric Dimensioning & Tolerance**

1 Credit. Recognition and interpretation of geometric dimensioning and tolerancing symbols and application as applied to prints for the manufacture of parts. Pre-requisite: Intro to Print Reading (31-420-320)

31-420-341**Fixture Basic Lathe & Mill**

1 Credit. The fundamentals of workholding and fixturing for CNC turning and milling are covered in this course. Students will apply what they learn by determining workholding needs, recognizing problems with CNC machine operation, change and adjust tooling and fixtures and perform multiple part setups. Co-requisite: Basic CNC Operation Mill (31-420-336) and Basic CNC Operation Lathe (31-420-337)

31-420-342**CNC Machine Speeds & Feeds**

1 Credit. Students will determine cutting speeds for carbide tooling on mill and lathes. Students will calculate feed per tooth and inches per minute for various cutters and materials. Students will calculate proper spindle speeds for milling and drilling operations.

31-420-343**Processes of Manufacturing**

1 Credit. Students learn to apply manufacturing requirements to the design of mechanisms by studying manufacturing disciplines. These disciplines include metallurgy, steel identification, casting, forging, cold working metals, plastics, and other specialized processes. The students will receive hands on work with MIG welding. Tours of various area manufacturing facilities will give the students new insight into various manufacturing processes. Co-requisite: Basic CNC Operation Lathe (31-420-337) or Basic CNC Operation Mill (31-420-336)

31-420-344**Advanced Mastercam Mill & Lathe**

1 Credit. This will be a continuation of Mastercam Mill & Lathe 2D where students will draw within software multiple mill and lathe parts. Then post to CNC machines to finish parts. Pre-requisite: Intro to Mastercam Mill 2D (31-420-328)

31-420-345**Precision Machining Internship**

2 Credits. Students apply technical theory and skills on the job. Students will setup and perform production part runs. Students will verify critical dimensions on parts and develop appropriate employment attitudes.

31-420-346**Machine Shop Safety & Measurement Tools**

2 Credits. The safety unit includes instruction in topics such as lockout-tagout, forklift training, shop safety, safety procedures for all equipment, handling and storage of materials and emergency response procedures. Learn procedures for all measurement equipment used in the machine shop.

31-420-347**Print Reading I**

1 Credit. Introduction to reading and interpreting prints and industrial drawings. Interpretation of views, projection, lines, section, working and assembly drawings relative to manufacturing processes and order of operations. This course integrates math skills with print reading.

31-420-348**Intro to Machine Tools**

5 Credits. This course will provide instruction and practice in the use of mills, lathes & surface grinding machines and various processes performed on them. Students will learn the installation of grinding wheel, work holding techniques, speeds and feeds and problem solving. Use profilometer to measure roughness average and grind parts specific dimensions. Students will learn about each machine, associated processes, machine tooling, and related safety/maintenance issues.

31-420-349**Computer Aided Machining Mill**

1 Credit. Introduction to computer aided machining of 2-dimension parts using CAM software. Students will use CAM software to create and machine pockets, slots, bosses, holes and engraved details in CNC milled parts.

31-420-350**Computer Aided Machining Lathe**

1 Credit. Introduction to computer aided machining of parts using CAM software. Students will use CAM software to create lengths, diameters, chamfer, counterbore, external threads and parting off in CNC lathes.

31-420-351**Computer Numerical Control**

4 Credits. Students apply skills in the programming and operation of a machining center using G-code, tool selection and work hold devices. The introduction to planning and writing programs for (CNC) turning centers using G and M code. Programming basics will include multiple tool programs, tool nose compensation and canned cycles. The setup of CNC Machining centers is covered in this course. Applications include selection of tools and work holding devices, setting tool offsets and work coordinate positions, and minor edits. Applications include selection of tools and work holding devices, setting tool offsets and work coordinate positions, calling programs, proofing programs, and machine adjustments.

31-420-352**Print Reading II**

1 Credit. Print reading is learning a new language in graphic or symbolic form for the purpose of manufacturing or assembling mechanical components. Units include: orthographic projection, sketching, dimensioning, machine process call-out, tolerance, finish, title blocks, notes, hole types, threads, symbols and callouts.

31-420-353**CNC Fixturing & Measurement**

2 Credits. Students will apply what they learned by determining work holding needs and recognize problems with CNC operation. We will adjust tools and fixtures as needed. Students will use advanced measurement equipment for part inspection.

31-420-354**Industry Experiential Learning**

1 Credit. Students will have the option to apply technical theory and skills on the job. Students will setup and perform production part runs. Students will verify critical dimensions on parts and develop appropriate employment attitudes. Students will also have the option to tour facilities and complete essay(s) and employee interview(s) in lieu of internship.

31-442-310**Equipment Safety**

1 Credit. In this hands-on course students will set up machine guards, identify different personal protective equipment, demonstrate safety using a fork truck, and demonstrate welding safety as well as oxy-fuel safety.

31-442-311**Oxyfuel Gas Cutting & Gouging**

1 Credit. In this hands-on class students will perform manual and machine (track burner) oxyfuel gas cutting as well as manual and machine oxyfuel gas gouging.

31-442-312**Arc Cutting & Gouging**

1 Credit. In this hands-on course students will complete air carbon cutting and gouging as well as examine cut surfaces and edges of prepared base metal parts.

31-442-313**Plasma Cutting & Gouging**

1 Credit. In this hands-on course students will complete plasma arc cutting as well as plasma arc gouging and will examine gouge surfaces and edges of prepared base metal.

31-442-314**Oxyfuel Equipment**

1 Credit. In this hands on course, students will learn how to make external repairs on oxy-fuel equipment components, inspect for safety, and set up oxyfuel equipment for welding.

31-442-315**Oxyfuel Brazing & Welding-Carbon Steel**

1 Credit. In this hands-on course students will learn how to make surfacing welds in the flat position, make fillet welds, and make groove welds on plain carbon steel.

31-442-316**Oxyfuel Brazing & Welding-Stainless Steel**

1 Credit. In this hands-on course students will learn how to make fillet and groove welds in all positions on 3XX stainless steel using the Oxyfuel process in accordance with AWS specifications.

31-442-320**SMAW–Equipment**

1 Credit. In this hands-on course the student will identify SMAW equipment components as well as inspect those components for safety. The student will also set up SMAW equipment for welding plain carbon steel and 3XX stainless steel.

31-442-323**GTAW–Equipment**

1 Credit. In this hands-on course the student will identify GTAW equipment components as well as inspect those components for safety. The student will also set up GTAW equipment for welding plain carbon steel, aluminum and 3XX stainless steel.

31-442-324**GTAW–Carbon Steel**

1 Credit. In this hands-on course the learner will learn how to make fillet and groove welds in all positions on plain carbon steel using the GTAW process as well as perform GTAW weldments that pass visual inspection.

31-442-325**GTAW–Aluminum**

1 Credit. In this hands-on course students will learn to make groove and fillet welds in all positions on aluminum using the GTAW process in compliance with the AWS specifications.

31-442-326**GTAW–Stainless Steel**

1 Credit. In this hands-on course students will learn how to make fillet and groove welds in all positions on 3XX stainless steel using the GTAW process in accordance with AWS specifications.

31-442-327**GMAW Equipment**

1 Credit. In this hands-on course the student will identify GMAW equipment components as well as inspect those components for safety. The student will also set up GMAW equipment for welding plain carbon steel, aluminum and 3XX stainless steel.

31-442-328**GMAW–Carbon Steel (S Process)**

1 Credit. In this hands-on course student will learn to make fillet and groove welds in all positions on plain carbon steel using the GMAW-S process in accordance with AWS Specifications.

31-442-329**GMAW–Aluminum**

1 Credit. In this hands-on course student will learn to make fillet and groove welds in all positions on Aluminum using the GMAW process in accordance with AWS Specifications.

31-442-330**GMAW–Stainless Steel**

1 Credit. In this hands-on course students will learn how to make fillet and groove welds in all positions on 3XX stainless steel using the GMAW process in accordance with AWS specifications.

31-442-331**GMAW–Carbon Steel (Spray Transfer)**

1 Credit. In this hands-on course student will learn to make fillet and groove welds in all positions on plain carbon steel using the GMAW- Spray Transfer process in accordance with AWS Specifications.

31-442-332**FCAW–Equipment**

1 Credit. In this hands-on course the student will identify FCAW equipment components as well as inspect those components for safety. The student will also set up FCAW equipment for welding plain carbon steel.

31-442-333**FCAW–Carbon Steel (Gas Shielded)**

1 Credit. In this hands-on course the learner will learn how to make fillet and groove welds in all positions on plain carbon steel using the FCAW (Gas Shielded) process as well as perform FCAW weldments that pass visual inspection.

31-442-335**Welding for Plumbers**

1 Credit. Students perform oxy-fuel brazing in all positions on copper and stainless steel tubing using various filler metals. Students perform Shielded Metal Arc Welding in all positions on steel and stainless steel pipe.

31-442-336**SMAW**

2 Credits. In this hands-on course the learner will learn how to fillet and groove welds in all positions on plain carbon steel and 3XX stainless steel using SMAW process as well as perform SMAW weldments that pass visual inspection and in accordance with AWS specifications.

31-442-340**Welding Internship**

1 Credit. In an occupational setting, students apply technical theory and skills by performing light welding projects. Students practice the necessary personal and professional skills essential to being successful welders.

31-457-317**Forming & Folding Metal**

1 Credit. In this hands-on course students will learn to form and fold metal using a forming roll, power press break, and a box and pan brake. Students will also learn to bend pipe.

31-457-318**Fabricating**

1 Credit. In this hands-on course students will use different equipment to fabricate, including sawing equipment, drill and tap equipment, and hydraulic iron worker.

31-457-334**Fabrication Planning & Drawing**

1 Credit. In this hands-on course students will learn how to properly form blueprints as well as create a project through planning, drawing and fabricating phases.

31-475-306**Blueprint Reading**

3 Credits. Students interpret blueprints for trade information. They draw sketches to convey ideas and utilize drawing software to prepare blueprints prior to building. They appreciate the importance of accuracy and completeness as well as understanding material.

31-475-307**Estimating**

2 Credits. Students specify materials, labor, and costs associated with a project. They consider weather, availability of materials, special tools, and equipment that will be necessary. They coordinate work with other trades to maximize efficiency. Pre-requisites: Carpentry II (31-475-302) OR Closing in Techniques (31-475-309) AND Blueprint Reading (31-475-306)

31-475-308**Construction Framing Fundamentals**

5 Credits. Students use a variety of construction hand and power tools in a safe and productive manner. They select the best construction types given the purpose of the structure. They prepare the construction site and use a builder's level to layout building lines and elevations. They identify building materials and select the appropriate fasteners for construction.

31-475-309**Closing in Techniques**

5 Credits. Students build walls and roofs using approved carpentry techniques. They select the correct tool for the job and use it proficiently. They work with others as a team to build a project in a reasonable time frame.

31-475-310**High Performance Building**

5 Credits. Students layout and build rafters, trusses, special beams, stairs, and other building members. They rough in for windows, doors, archways, bookcases, and other finishing considerations. They apply a variety of roofing and flooring materials. Prerequisites: Carpentry II (31-475-302) OR Closing in Techniques (31-475-309) AND Blueprint Reading (31-475-306)

31-475-311**Interior & Exterior Trim**

Credits. Students finish the interior of a building project. They hang windows and doors, build cabinets, hang and tape drywall, cut and apply trim, and install stairs and banisters. Prerequisites: Carpentry II (31-475-302) or Closing in Techniques (31-475-309) and Blueprint Reading (31-475-306)

31-475-312**Introduction to Building Trades**

1 Credit. Introduces the learner to the fundamental building materials and methods of residential construction. Students will practice safe operation of hand tools and power tools. Various types of joining methods and general shop safety practices will be covered. Students will apply building trades skills by completing a small wood working project.

31-475-313**Site Layout, Foundations, and Formwork**

2 Credits. Students will be introduced to building elevations, measuring and layout methods using a builder's level, laser level, and total station. The construction applications of concrete and concrete forms for footings, foundation walls, and flat work will be analyzed.

31-475-314**Floor and Wall Framing**

3 Credits. Students will learn to recognize and apply the materials, methods, and procedures required to frame walls and flooring systems. The safe operation of hand tools and portable power tools will be executed as students measure and layout floor and wall framing.

31-475-315**Blueprint Reading**

2 Credits. This course introduces students to blueprint reading and the basic components, including the various types, symbols, and abbreviations. Students will practice analyzing and reading various types of working drawings, detailed drawings, elevations, and floor plans used in residential construction.

31-475-316**Roof Systems**

2 Credits. Students will evaluate and apply the principles of roof framing, truss layout, and dormer framing. Various types of roof shapes and pitches are examined. Types of underlayment and the proper installation are explored and practiced. Various connectors and fasteners are utilized. Multiple types of roofing materials and proper installation methods are introduced including wood, architectural metal, and asphalt.

31-475-317**Exterior Finishes**

2 Credits. Students will explore and apply methods and materials used in residential structures including: soffit and fascia installation, various types of siding installation and various types of trim. Proper types of fasteners and methods of fastening will also be covered.

31-475-318**Residential Estimating**

2 Credits. Students will apply quantity survey and quantity take-off methods of residential estimating through the study and interpretation of construction plans and specifications. Material pricing and projections will be conducted using residential estimating forms, spreadsheet planning tools, and estimating software. Pre-requisite: 31475-318 Pre-Req for Residential Estimating Blueprint Reading (31-475-315) and Roof Systems (31-475-316) and Exterior Finishes (31-475-317)

31-475-318**Residential Estimating**

2 Credits. Students will apply quantity survey and quantity take-off methods of residential estimating through the study and interpretation of construction plans and specifications. Material pricing and projections will be conducted using residential estimating forms, spreadsheet planning tools, and estimating software. Pre-requisites: Blueprint Reading (31-475-315) and Roof Systems (31-475-316) and Exterior Finishes (31-475-317)

31-475-319**Building Science and Sustainability**

1 Credit. Students will explore innovative construction design techniques focused on energy efficient and sustainable conservation practices. Alternative energy systems will be analyzed and differentiated in applied learning lab activities. Pre-requisites: Blueprint Reading (31-475-315) and Roof Systems (31-475-316) and Exterior Finishes (31-475-317)

31-475-320**Insulation, Drywall Installing, and Finishing**

2 Credits. Students will explore and apply best practices in construction insulation methods. Fiberglass, loose-fill, dense pack, batt insulation, rigid polystyrene (EPS) (XPS) (ISO), and spray foam applications will be covered. Drywall installation and finishing will be discussed and practiced in the lab. Methods of patching, repairing, and applying a decorative finish will be covered. Pre-requisites: Blueprint Reading (31-475-315) and Roof Systems (31-475-316) and Exterior Finishes (31-475-317)

31-475-321**Cabinet Construction and Installation**

1 Credit. Students will be introduced to cabinet design and construction methods used in cabinet making and installation. Installation of specialty cabinetry hardware, drawer and case construction and installation will be covered. Pre-requisites: Blueprint Reading (31-475-315) and Roof Systems (31-475-316) and Exterior Finishes (31-475-317)

31-475-323**Windows, Doors, and Hardware Installation**

2 Credits. Students will follow the proper installation techniques for interior and exterior doors and window installation. The various types and installation of door hardware will be analyzed and applied. Pre-requisites: Blueprint Reading (31-475-315) and Roof Systems (31-475-316) and Exterior Finishes (31-475-317)

31-475-324**Interior Finishes & Stair Construction**

2 Credits. This course introduces students to the materials and techniques used to finish the interior of a residential home. Students will apply installation techniques in a base, casing, crown molding, and complete a stair balustrade and hand rail. Pre-requisites: Blueprint Reading (31-475-315) and Roof Systems (31-475-316) and Exterior Finishes (31-475-317)

31-475-325**Building Trades Practicum**

1 Credit. Students will practice and follow industry standards while working in the field with experienced trade professionals. Students will apply the trained skills from the program to real life applications. Pre-requisite: Introduction to Building Trades (31-475-312)

31-501-101**Medical Terminology**

2 Credits. This course focuses on the component parts of medical terms: prefixes, suffixes and word roots. Students practice formation, analysis and reconstruction of terms, with emphasis on spelling, definition and pronunciation. The course introduction operative, diagnostic, therapeutic, and symptomatic terminology for all body systems, as well as systemic and surgical terminology.

31-501-104**Contemporary Healthcare Practices**

2 Credits. An introduction to contemporary healthcare practices for students interested in a career serving diverse healthcare communities. Learners explore the essential skills required for equitable and inclusive person-centered interactions. Learners examine various health communities, mindful practices, professionalism, problem solving, and patient confidentiality.

31-501-308**Pharmacology for Allied Health**

2 Credits. Introduces students to classifying medications into correct drug categories and applying basic pharmacology principles. Students apply basic pharmacodynamics to identifying common medications, medication preparation, and administration of medications used by the major body systems.

31-502-301**Basic Hair Design**

5 Credits. Students learn haircutting, tapering, razor cutting, beard shaping, and shaving using various tools and techniques based on client needs. They perform shampooing and conditioning, then practice hairstyling skills such as blow-outs, thermal waving, straightening, roller setting, and pin curls. Students also learn wig, hairpiece, and extension care and placement. Through consultation, they identify scalp disorders to recommend treatments. Anatomy and physiology of hair are also studied.

31-502-302**Salon/Spa Science**

2 Credits. Students learn the importance of a professional image, hygiene, grooming, and professional development and ethics necessary for a salon or spa employee. Students perform sanitation and disinfection according to the State of Wisconsin laws to keep the salon clean and safe. Students study anatomy, physiology related to the skin, and basics of chemistry and electricity in the salon clinic. First aid and safety are covered in this course to comply with standards of the industry. Note: Student must be accepted into the Cosmetology or Nail Technician program.

31-502-303**Chemical Restructuring**

2 Credits. Students perform chemical services using permanent waving and chemical relaxing techniques. Students understand how the hair is restructured chemically through the study of chemistry in this course. Students wrap and process hair to permanently curl hair into different curl and design textures. Students chemically straighten hair using professional tools and products. Students practice client consultations and all safety and sanitation procedures. Note: Student must be accepted into the Cosmetology program.

31-502-304**Haircoloring and Techniques**

3 Credits. Students practice client analysis and consultations related to haircoloring services. Students study the color wheel and the theory behind the "Law of Color." Students practice communication skills to identify each client's desires and needs. Students mix and apply various types of hair colors, demonstrate foil techniques and corrective color procedures. Students explore different techniques in hair color services related to industry trends. Students practice all safety and sanitation procedures related to the state laws and rules. Note: Student must be accepted into the Cosmetology program.

31-502-305**Nail Technology**

3 Credits. Students practice client analysis and consultations related to nail services. Students safely prepare working area for nail services. They study nail disorders and diseases and review the anatomy and physiology as related to the hands and feet. Students practice communication skills to identify each client's desires and needs. Students develop skills in manicuring, pedicuring and nail enhancements. Students practice all safety and sanitation procedures related to the state laws and rules. Note: Student must be accepted into the Cosmetology program.

31-502-306**Basic Facials**

2 Credits. Students explore the importance of proper skin care services. Students explain pertinent information during a client consultation and skin analysis. Students perform facials including massage, hair removal, makeup and band lash application. Pre-requisite: Salon/Spa Science (31-502-302)

31-502-307**Salon/Spa Management**

2 Credits. Students learn management, advertising and book keeping skills involved in operating a salon/spa as a business. Students learn how to establish positive customer communications and relationships. Students practice math skills while learning receptionist responsibilities. Students plan a salon/spa business using the requirements of Wisconsin guidelines. Students learn the State of Wisconsin Rules and Regulations guidelines. Students prepare for job opportuni-

ties. Pre-requisites: Salon/Spa Science (31-502-302) and Nail Technology (31-502-305)

31-502-314

Salon Services I–Fundamentals

3 Credits. Students begin practicing the fundamentals of cosmetology services on customers in a salon environment. They apply knowledge and skills learned in their related theory and lab classes to hands-on work experience. Pre-requisites: Haircoloring and Techniques (31-502-304) and Basic Hair Design (31-502-301) and Salon/Spa Science (31-502-302) and Chemical Restructuring (31-502-303) and Nail Technology (31-502-305)

31-502-315

Salon Services II–Basic Concepts

4 Credits. Students perform a variety of salon services for customers in a salon setting. Students conduct basic concepts related to professional attitude, ethics, and the practice of salon skills performed in the salon atmosphere. Pre-requisite: Salon Services I–Fundamentals (31-502-320)

31-502-316

Salon Services III–Skill Building

4 Credits. Students continue performing various salon skills with greater proficiency while building skills performed in salon services. Pre/Co-requisite: Salon Services II–Basic Concepts (31-502-315)

31-502-317

Salon Services IV–Intermediate Skills

4 Credits. Students develop intermediate skills in service areas of hair cutting, barbering techniques, chemical services, nail technology, and skin care services with increased attention to individual client needs. Pre/Co-requisite: Salon Services III–Skill Building (31-502-316)

31-502-318

Salon Services V–Proficiency Building

5 Credits. Students continue to develop speed and greater proficiency in all areas of advanced salon services, including chemical services, hair cutting, barbering techniques, color, nail technology, and skin care with increased attention to individual client needs. Students work together as a team and cooperation with other students is assessed along with professional attitude, ethics, and conduct. Prerequisite: Salon Services IV–Intermediate Skills (31-502-317) with a “C” or better.

31-502-319

Salon Services VI–Advanced Techniques

5 Credits. Students perform a variety of advanced techniques and required services. Students show competency in these services and can complete these tasks with additional speed and attention to detail. Students demonstrate salon management skills using computerized appointment booking and

attention to closing out the cash register to balance the day’s receipts. Students demonstrate competency in running a salon, including paying attention to cleanliness, sanitation, safety, inventory, retail control and organization. Prerequisite: Salon Services V–Proficiency Building (31-502-318) with a “C” or better. Pre-requisite: 31502-319-22 Legacy Pre-Req migrated rule for Salon Services VI - Advanced Techniques

31-502-320

Salon Services I–Fundamentals

2 Credits. Students begin practicing limited fundamentals of cosmetology services on customers in a salon environment. They apply knowledge and skills learned in their related theory and lab classes to hands-on work experience. Pre/Co-requisites: Basic Hair Design (31-502-301) and Nail Technology (31-502-305) and Salon/Spa Science (31-502-302) and Chemical Restructuring (31-502-303) and Haircoloring and Techniques (31-502-304)

31-502-321

Salon Services V–Proficiency Building

2 Credits. Students continue to develop speed and greater proficiency in all areas of advanced salon services, including chemical services, hair cutting, barbering techniques, color, nail technology, and skin care with increased attention to individual client needs. Students work together as a team and cooperation with other students is assessed along with professional attitude, ethics, and conduct. Pre/Co-requisite: Salon Services IV–Intermediate Skills (31-502-317)

31-502-322

Nail Services

3 Credits. Students practice nail services on customers in a salon environment. They apply knowledge and skills learned in their related theory lab classes to hands-on work experience. Students perform all manicure and pedicure services as well as all nail extension services in a salon atmosphere. Pre-requisites: Salon/Spa Science (31-502-302) and Nail Technology (31-502-305)

31-502-323

Salon Services VI–Advanced Techniques

3 Credits. Students perform a variety of advanced techniques and required services. Students show competency in these services and can complete these tasks with additional speed and attention to detail. Students demonstrate salon management, retail and inventory control, including paying attention to safety and sanitation. Pre-requisite: Salon Services V–Proficiency Building (31-502-321)

31-502-324

Salon Advanced Internship

3 Credits. Students will continue salon services through an internship by performing practical skills outlined in WI Cosmetology Code 5, retail methodology, and infection control while working in a community-based licensed establishment under the supervision of a licensed cosmetologist.

31-508-302**Dental Chairside**

5 Credits. Prepares dental assistant student to chart oral cavity structures, dental pathology, and restorations and to assist a dentist with basic dental procedures including examinations, pain control amalgam restoration, and cosmetic restoration. Students will also develop the ability to educate patients about preventive dentistry, brushing and flossing techniques, and dental procedures, using lay terminology. Throughout the course, students will apply decoding strategies to the correct use and interpretation of dental terminology.

31-508-304**Dental & General Anatomy**

2 Credits. Prepares dental assistant students to apply fundamentals of general and dental anatomy to informed decision-making and to professional communication with colleagues and patients.

31-508-306**Dental Assistant Clinical**

Credits. Students apply skills developed in Dental and General Anatomy, Dental Health Safety, Dental Chairside, Dental Materials, Dental Radiography, and Professionalism in a clinical setting with patients. Emphasizes integration of core abilities and basic occupational skills.
Credits.

31-508-307**Dental Assistant Professional**

1 Credit. Prepares dental assistant students for professional success in a dental practice or another dental health care environment. Students develop professional appearance and image. More importantly, they learn to work within ethical guidelines and legal frameworks. In preparation for entering the work force, dental assistants customize or develop their portfolios and lay out an ongoing professional development plan.

31-509-301**Medical Assistant Administration Procedures**

2 Credits. Introduces medical assistant students to office management and business administration in the medical office. Students learn to schedule appointments, perform filing, record keeping, telephone and reception duties, communicate effectively with patients and other medical office staff, and keep an inventory of supplies. Students apply introductory medical coding skills and managed care terminology.

31-509-302**Human Body in Health & Disease**

3 Credits. Focuses on diseases that are frequently first diagnosed and treated in the medical office setting. Students learn to recognize the causes, signs, and symptoms of diseases of the major body systems as well as the diagnostic procedures, usual treatment, prognosis and prevention of common diseases.

31-509-303**Medical Assistant Lab Procedures 1**

2 Credits. Introduces medical assistant students to laboratory procedures commonly performed by medical assistants in a medical office setting. Students perform Clinical Laboratory Improvement Amendment (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.

31-509-304**Medical Assistant Clinical Procedures 1**

4 Credits. Introduces medical assistant students to the clinical procedures performed in the medical office setting. Students perform basic examining room skills including screening, vital signs, patient history, minor surgery and patient preparation for routine and specialty exams in the ambulatory care setting.

31-509-305**Medical Assistant Lab Procedures 2**

2 Credits. Prepares students to perform phlebotomy and Clinical Laboratory Improvement Amendment (CLIA) waived hematology, chemistry, immunology and laboratory procedures commonly performed by medical assistants in the ambulatory care setting. Pre-requisite: Medical Asst Lab Procedures 1 (31-509-303)

31-509-306**Medical Assistant Clinical Procedures 2**

3 Credits. Prepares medical assistant students to perform patient care skills in the medical office setting. Students perform clinical procedures including administering medications, assisting with minor surgery, performing an electrocardiogram, assisting with respiratory testing, educating patients/community, and maintaining clinical equipment in an ambulatory care setting. Pre-requisite: Medical Assistant Lab Procedures 1 (31-509-303) or Medical Assistant Clinical Procedures 1 (31-509-304)

31-509-307**Medical Office Insurance & Finance**

2 Credits. Introduces medical assistant 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. Pre-requisite: Medical Terminology (10-501-101) or Medical Terminology (31-501-101)

31-509-308**Pharmacology for Allied Health**

2 Credits. Introduces students to classifying medications into correct drug categories and applying basic pharmacology principles. Students apply basic pharmacodynamics to identifying common medications, medication preparation,

and administration of medications used by the major body systems.

31-509-309

Medical Law, Ethics, & Profession

2 Credits. Prepares students to display professionalism and perform within ethical and legal boundaries in the health care setting. Students maintain confidentiality, examine legal aspects of the medical record, perform risk management procedures, and examine legal and bioethical issues.

31-509-310

Medical Assistant Practicum

3 Credits. Requires medical assistant students to integrate and apply knowledge and skills from all previous medical assistant courses in actual patient care settings. Learners perform medical assistant administrative, clinical, and laboratory duties under the supervision of trained mentors to effectively transition to the role of a medical assistant. Co-requisite: Medical Assistant Clinical Procedures 2 (31-509-306)

31-513-181

Quality Lab Microbiology 1

2 Credits. This course provides an overview of microbiological theory, testing, and control. This course will review lab safety, beneficial and pathogenic microorganisms and their detection and control within the industry. Sample collection, handling and preparation, in addition to tests performed to detect microorganisms in raw and manufactured dairy products will be discussed. Co-requisites: Basic Lab Skills (10-513-110) and QA Lab Math (10-513-113)

31-513-182

Quality Lab Skills 1

1 Credit. The learner will be introduced to dairy food chemistry and applicable laboratory skills. Topics covered will include basic chemistry principles used in dairy food testing and quality analysis. Students will be introduced to testing performed in a dairy food manufacturing lab, standard laboratory methods and proper techniques. Emphasis will be placed on laboratory safety, laboratory equipment utilization, and quality techniques. Note: Two semesters of high school Chemistry could replace Fundamentals of Chemistry. Co-requisites: Basic Lab Skills (10-513-110) and QA Lab Math (10-513-113) and Fundamentals of Chemistry (10-806-109)

31-513-185

Quality Lab Skills 2

1 Credit. The learner will apply testing techniques used in the dairy food manufacturing and quality industry to ensure product quality and safety. Concepts in data analysis as it relates to documentation of results, quality control testing, calibration, and troubleshooting will be reviewed. Emphasis will be placed on critical thinking, quality of work, and laboratory technique. Pre-requisite: Quality Lab Skills 1 (31-513-182)

31-513-186

Quality Lab Microbiology 2

2 Credits. This course will review characteristics of microorganisms pertinent to the food manufacturing and quality testing industry. The learner will apply microbiological testing techniques used in the dairy food manufacturing and quality industry to ensure product quality and safety. Techniques in sampling methods and analysis of plate counts will be explored. Pre-requisite: Quality Lab Microbiology 1 (31-513-181)

31-543-301

Nursing Fundamentals

2 Credits. This course focuses on basic nursing concepts that the beginning nurse will need to provide care to diverse patient populations. Current and historical issues impacting nursing will be explored within the scope of nursing practice. The nursing process will be introduced as a framework for organizing the care of patients with alterations in cognition, elimination, comfort, grief/loss, mobility, integument, and fluid/electrolyte balance.

31-543-302

Nursing Skills

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

31-543-303

Nursing Pharmacology

2 Credits. This course introduces the principles of pharmacology, including drug classifications and their effects on the body. Emphasis is on the use of the components of the nursing process when administering medications.

31-543-304

Nsg: Intro Clinical Practice

2 Credits. This introductory clinical course emphasizes basic nursing skills and application of the nursing process in meeting the needs of diverse clients. Emphasis is placed on performing basic nursing skills, the formation of nurse-client relationships, communication, data collection, documentation, and medication administration.

31-543-305

Nursing Health Alterations

3 Credits. This course elaborates upon the basic concepts of health and illness as presented in Nursing Fundamentals. It applies theories of nursing in the care of clients through the lifespan, utilizing problem solving and critical thinking. This course will provide an opportunity to study conditions affecting different body systems and apply therapeutic nursing

interventions. It will also introduce concepts of leadership, team building, and scope of practice.

31-543-306

Nursing Health Promotion

3 Credits. This course will cover topics related to health promotion in the context of the family. We will cover nursing care of the developing family, which includes reproductive issues, pregnancy, labor and delivery, postpartum, the newborn, and the child. Recognizing the spectrum of healthy families, we will discern patterns associated with adaptive and maladaptive behaviors applying mental health principles. An emphasis is placed on teaching and supporting healthy lifestyle choices. Nutrition, exercise, stress management, empowerment, and risk reduction practices are highlighted. Study of the family will cover dynamics, functions, discipline styles, and stages of development.

31-543-307

Nursing Clinical Care Across the Lifespan

2 Credits. This clinical experience applies nursing concepts and therapeutic interventions to clients across the lifespan. It also provides an introduction to concepts of teaching and learning. Extending care to include the family is emphasized.

31-543-308

Nursing Introduction to Clinical Care Management

2 Credits. This clinical experience applies nursing concepts and therapeutic nursing interventions to groups of clients. It also provides an introduction to leadership, management, and team building.

31-543-335

Body Structure/Function

2 Credits. The student will learn principles of body functions and the relationship between structure and function with emphasis on the application of these principles as they relate to the human body.

31-543-355

Professional Communication & Relationships

3 Credits. Students apply critical thinking skills, attitudes and behaviors to study human behavior and relationships in family, work, and community roles. Students develop a sense of nursing professionalism through introduction of the history of nursing, health care teams, legal and ethical responsibilities, job acquisition skills, and current trends in nursing.

31-543-356

Growth & Development

2 Credits. Students learn principles of normal human growth and development, which assists the practical nurse in meeting the basic needs of persons from conception through senescence. Students analyze principles of growth and development in relationship to developmental tasks, and physical and psychological changes in human development.

31-801-310

Workplace Communication

2 Credits. Students apply oral, written, listening, and non-verbal skills to workplace situations. Students discover how to use communication as the key to solving workplace problems, resolving conflicts, working as members of a team, and effectively giving and receiving criticism. Students develop an understanding of diversity in the workplace, harassment issues, and the impact of substance abuse on the job.

31-804-305

Applied Mathematics

2 Credits. Students compute with rational numbers. They make and convert various measurements. Students use formulas to solve problems. They compute dimensions of geometric shapes. Students use statistical tools to represent and analyze data. They analyze various financial situations. Students use basic right triangle trigonometry to solve problems. In each topic area, students solve application problems.

31-804-314

Occupational Math-Business

1 Credit. Students taking Occupational Math - Business organize data and represent data in graphical form. Students use graphs and statistical tools to represent and analyze data. They analyze various financial situations. Students also perform basic algebraic operations. They solve linear equations and rearrange algebraic formulas. In each topic area, students solve application problems.

31-804-315

Occupational Math-Technical

1 Credit. Students taking Occupational Math-Technical make and convert various measurements. They compute dimensions of geometric shapes. Students use basic right triangle trigonometry to solve problems. They also perform basic algebraic operations. Students solve linear equations and rearrange algebraic formulas. In each topic area, students solve application problems.

32-006-301

On-Farm Employment Relations

2 Credits. Introduces topics that relate to employment on a farm. Topics include personality, relationships, decision-making and social relations as they apply to everyday living and working in both family and non-family businesses. Personnel management techniques include: development of goals, determining personnel needs, finding and recruiting the right people, training, performance appraisals, promotions and terminations. Students will also learn about creating handbooks, writing job descriptions, and proper paperwork to have on file for employees.

32-006-302**On-Farm Nutrient Management Planning**

2 Credits. Students will define reasons for developing a nutrient management plan for farms and the necessary components of a nutrient management plan according to the NRCS WI NM 590 standard. Topics discussed will be soil testing, conservation plans, manure management, and management of nutrient credits and applied nutrients (nitrogen, phosphorus, potassium) and pH. Specialized software will be used to create a nutrient management plan.

32-006-303**On-Farm Commodity Marketing**

3 Credits. Students will learn the operation and use of agricultural commodity markets as it applies to enterprise risk management. Topics include cash markets; futures markets and futures option markets; basis; hedging and forward pricing; price discovery; fundamental analysis; technical analysis and risk management strategies. Students will participate in simulated commodity activities using real-time pricing to practice the concepts taught during the course.

32-070-301**Farm Machinery Harvest**

5 Credits. Students operate, recondition, adjust, and maintain many of the different types of harvesting equipment used on modern farms. Students diagnose electro-hydraulic systems used on combines and forage harvesters. Students learn the different types of combine construction and how this affects productivity. Students check for field loss and adjust combines to provide maximum efficiency. Pre-requisite: Ag Shop Safety & Practices (32-070-314)

32-070-303**Chassis Drive Systems**

5 Credits. Students diagnose and repair "live" power train problems which include clutches, transmissions, differentials, and PTOs. Students build skills necessary to diagnose and repair power trains on approved projects. Students use time management techniques during lab instruction while performing diagnostic tests and repairs. Students also use the latest computer resource information to gather parts and service information. Pre-requisite: Basic Hydraulics (32-070-341)

32-070-305**Intro to Ag Electrical Systems**

3 Credits. Students apply the fundamentals of electricity and electronics as it relates to the tractor electrical system. Students gain an understanding of the basic electrical system, reading schematics used to diagnosis these systems and how to apply test procedures for the circuits being studied. Students will learn the various test equipment and meters. They will apply the proper use of the test equipment while learning the basic electrical systems and repair procedures.

32-070-309**Farm Machinery Maintenance**

5 Credits. Students learn to perform preventative maintenance procedures to a variety of agricultural equipment used in production agriculture. During this process the student gains an understanding of belt and chain drives, repair and adjustments, various types of bearings and bearing maintenance, PTO assemblies and associated repair procedures. Basic service maintenance of tractors is covered.

32-070-311**Diesel Engines I**

5 Credits. Students learn concepts of the diesel engine operation and diagnostic processes used to locate problems within the engine. Students work with the maintenance and repair of the cooling system, lubrication system, fuel system and intake/exhaust systems. Students will use nozzle testing and repair equipment to make repairs to injection nozzles in the lab. Students will understand proper injection pump failure diagnosis and on tractor adjustments are emphasized as well as an insight into the specialized diesel component repair field that they may find employment in. Pre-requisite: Farm Machinery Maintenance (32-070-309)

32-070-312**Diesel Engines II**

5 Credits. Students learn how the internal components of the diesel engine work together in theory and in the lab as they apply repair techniques to a diesel engine overhaul project. Students learn how to properly measure the components and make informed decisions on the repair processes warranted as compared to the equipment specifications. This process includes developing a repair estimate to be shared with the customer. Pre/Co-requisite: Diesel Engines I (32-070-311)

32-070-314**Ag Shop Safety & Practices**

1 Credit. Students learn skills required to become productive and efficient in the Agricultural service center. The skill set will include a working understanding of hand tools, power tools, lifting equipment, general shop equipment, fastener applications and the proper torquing procedures for the various fasteners and gasket/sealant application. The student's skills are improved through practice and evaluation in a safety conscious manner. Students will gain a further understanding of employment opportunities, customer and employer expectations as well as the policies and procedures related to the operation of an Agricultural dealership.

32-070-341**Basic Hydraulics**

4 Credits. Students disassemble, inspect, and repair hydraulic cylinders, pumps, and valves. Students apply hydraulic theory and principles by drawing hydraulic systems using ISO symbols. Students operate open and closed center hydraulic simulators to relate to the differences in pressure and flow. Pre-requisite: Ag Shop Safety & Practices (32-070-314)

32-070-343**Applied Hydraulics**

4 Credits. Students learn the working fundamentals of hydraulic systems found on today's agricultural equipment including tractors, combines, skid steers loaders and related equipment through class discussion and lab demonstrations. Students will use hydraulic pressure gauges, flowmeters, diagnostic flow charts and manufacturer technical manuals as they apply theory to lab projects to enforce theory discussion and develop hands-on skills. Students also use the latest computer resource information available to gather parts and service information as it pertains to their lab project. Pre-requisite: Basic Hydraulics (32-070-341)

32-070-344**Air Conditioning**

2 Credits. Students diagnose air conditioning system problems and make necessary repairs. Students will apply the laws and requirements set forth by state and federal agencies and are given the opportunity to take the state mobile air conditioning certification test to repair air conditioning systems upon satisfactory completion of this program.

32-070-345**Advanced Electrical Systems**

4 Credits. Students build on fundamental electrical skills learned in the Starting and Charging Systems course. Students work with simulators and prior approved projects to develop diagnostic skills and repair techniques while learning and making repairs to lighting, control, and monitoring circuits. Students use onboard diagnostics systems and scan tools as an integral part of this course as well as factory technical manuals, online resources, and computer programs to access service and parts information to complete lab projects. Pre-requisite: Intro to Ag Electrical Systems (32-070-305)

32-070-346**Consumer Equipment Maintenance & Repair**

3 Credits. Students learn the repair concepts of home owner consumer products including Lawn & Garden tractors, riding lawn mowers, snow blowers, string trimmers, and chain-saws. Students learn basic design concepts and the repair and maintenance of the equipment found in everyday residences for home upkeep. Pre-requisite: Farm Shop Safety and Maintenance (10-070-103) or Ag Safety, Electrical & Maintenance (10-070-104) or Ag Shop Safety & Practices (32-070-314) or Ag Safety, Electrical & Maintenance (10-070-105)

32-070-347**Farm Equipment I**

3 Credits. Students learn the principles of field operation and reconditioning of tillage and planting equipment. Students learn methods of testing, calibrating, adjusting and maintaining the different types of seeding equipment. Emphasis is placed on getting the planting unit field-ready, and how to

instruct the customer on proper field operation of the seeding equipment. Pre-requisite: Ag Shop Safety & Practices (32-070-314)

32-070-348**Farm Equipment II**

3 Credits. Students learn the principles of the field operation and reconditioning of hay harvesting equipment. Students learn the different designs of hay cutting equipment and the maintenance procedures associated with the different designs found today. They move through the course to the hay harvesting equipment including small square balers, large square balers, round balers. Students will learn the repair and field adjustment to the knotters used on small and large balers and the wrapping options found on round balers. Pre-requisite: Ag Shop Safety & Practices (32-070-314)

32-070-350**Ag Power Occup Internship**

2 Credits. Students apply technical theory and skills on the job. Students diagnose and repair agricultural tractors and equipment. Students practice good communication and customer relation skills. Students develop appropriate employment attitudes. Pre-requisite: Farm Equipment II (32-070-348)

32-404-310**Auto Electrical I**

3 Credits. Students focus on developing the skills needed to diagnose, service, and repair electrical and electronic systems. Students learn the fundamental concepts of electrical systems and understand wiring schematics. Learners utilize basic and digital test equipment, and apply Ohm's Law to electrical circuit diagnosis. Pre-requisites: Automotive Maintenance (32-404-314) and Automotive Service Fundamentals (32-404-334)

32-404-311**Auto Electrical II**

3 Credits. Students focus on developing the skills needed to diagnose, service, and repair electrical and electronic systems, including batteries, starting, charging, lighting, and computer control systems. Students utilize advanced techniques to diagnose and repair circuit faults. Pre-requisite: Auto Electrical I (32-404-310)

32-404-312**Auto Electrical III**

3 Credits. Students focus on developing the skills needed to diagnose and repair automobile electrical accessories, including cruise control, windshield wipers, electric windows, electric door locks, instrumentation and power antennas. Students utilize test lights, digital test equipment and wiring schematics to employ a logical diagnostic procedure for determining electrical system problems. Pre-requisite: Auto Electrical II (32-404-311)

32-404-314**Automotive Maintenance**

3 Credits. Students perform routine maintenance of the automobile including new and used car preparation, fluid checks and service, interior and exterior considerations, replacing filters and small parts, repairing tires, replacing belts, replacing wiper blades, and other repairs to maintain acceptable automobile performance.

32-404-315**Engine Repair**

5 Credits. Students apply information and skills in repairing automotive engines, including in-car repairs, removal and replacement of parts, and cylinder head rebuilding. Complete engine disassembly is discussed and performed. Pre-requisite: Auto Electrical I (32-404-310)

32-404-321**Automatic Transmissions**

5 Credits. Students diagnose, service, and repair automatic transmissions. Students practice safe and practical shop procedures through automatic transmission disassembly, cleaning, inspection, and reassembly. Pre-requisite: Automotive Computer Control Systems (32-404-324) or Advanced Engine Systems (32-404-329)

32-404-322**Suspension & Steering**

5 Credits. Students learn the fundamental concepts of suspension geometry and will analyze, diagnose, and repair automotive suspension and steering systems. Learners diagnose driving and handling concerns caused by steering and suspension system problems and misalignment concerns. Students operate computerized alignment equipment to perform four-wheel alignments on automobiles and operate wheel balancing equipment. Pre-requisite: Auto Electrical I (32-404-310)

32-404-323**Emission Control Systems**

2 Credits. Students diagnose and service emission control systems and perform exhaust gas analysis on automobiles and light trucks.

32-404-324**Automotive Computer Control Systems**

4 Credits. Students apply related theory and diagnostic procedures, to properly service and repair computerized control systems found on the modern day automobile, utilizing various types of diagnostic test equipment.

32-404-325**Manual Drivetrains & Axles**

5 Credits. Students perform service, diagnostic and repair procedures on manual transmission/transaxles, drive axles, differentials and transfer cases. Pre-requisite: Automotive Service Fundamentals (32-404-334)

32-404-325**Manual Drivetrains & Axles**

5 Credits. Students perform service, diagnostic and repair procedures on manual transmission/transaxles, drive axles, differentials and transfer cases. Pre-requisite: Automotive Computer Control Systems (32-404-324) or Advanced Engine Systems (32-404-329)

32-404-325**Manual Drivetrains & Axles**

5 Credits. Students perform service, diagnostic and repair procedures on manual transmission/transaxles, drive axles, differentials and transfer cases. Pre-requisite: Automotive Computer Control Systems (32-404-324) or Advanced Engine Systems (32-404-329)

32-404-326**Auto Engine Performance**

4 Credits. Students perform ignition and fuel system maintenance and diagnostic procedures using a variety of diagnostic tools and test equipment. Students apply engine operating principles to perform diagnostic procedures on systems related to engine performance and emission control.

32-404-327**Climate Control Systems**

3 Credits. Students service, repair, and maintain automotive air conditioning systems using knowledge of how the system operates. Students diagnose problems using the appropriate equipment. Students test systems for leaks, recycle and recharge refrigerant, and remove and replace system components. Students will diagnose and service High Voltage air conditioning and heating components. Pre-requisite: Auto Electrical III (32-404-312)

32-404-328**Hybrid and Electric Vehicles**

2 Credits. Students will learn the safety protocols needed to safely service high voltage systems. Students will understand low voltage and high voltage systems within hybrid and electric vehicles. Students will inspect, remove, disassemble, and install high voltage components including HV batteries, inverters, and motors. Supporting cooling systems and low voltage electrical will also be diagnosed. Pre-requisite: Auto Electrical III (32-404-312)

32-404-329**Advanced Engine Systems**

4 Credits. Students apply related theory and diagnostic procedures to properly service and repair computerized control systems found on the modern day automobiles utilizing various types of diagnostic test equipment. Testing will occur on GM, FCA, Ford, and Import vehicles, including Hybrid and Electric. Co-requisite: Emission Control Systems (32-404-323)

32-404-332**Heating and Air Conditioning**

3 Credits. Students service, repair, and maintain automotive air conditioning systems using knowledge of how the system operates. Students diagnose problems using the appropriate equipment. Students test systems for leaks, recycle and re-charge refrigerant, and remove and replace system components. Pre-requisite: Auto Electrical III (32-404-312)

32-404-334**Automotive Service Fundamentals**

3 Credits. Students practice basic skills encountered as a technician servicing automobiles and light trucks including metal work; hand tool, power tool, and fastener usage; measuring techniques, hoist operation, gasket/sealer application; and oxyacetylene and MIG welding techniques. Students' skills are improved through practice in a safety conscious manner. Students examine employment opportunities, employer and customer expectations, and policies and procedures related to the operation of an auto service shop.

32-404-335**Automotive Brakes**

3 Credits. Students service and repair brake system problems using knowledge of brake system operation. Students use proper service tools and equipment to perform safe and quality brake system repair including disc brakes, drum brakes, parking brakes, and the brake hydraulic system. Students diagnose antilock brake system problems and perform necessary repairs.

32-404-336**Advanced Braking Systems**

1 Credit. Students diagnose, service, and repair electrical and electronic systems relating to anti-lock brakes and electronic stability control systems. Students will learn the theory of operation, perform diagnostic procedures and practice problem-solving methods. Co-requisite: Automotive Brakes (32-404-335)

32-404-336**Advanced Braking Systems**

1 Credit. Students diagnose, service, and repair electrical and electronic systems relating to anti-lock brakes and electronic stability control systems. Students will learn the theory of operation, perform diagnostic procedures and practice problem-solving methods. Co-requisite: Automotive Brakes (32-404-335)

32-404-337**Drivetrain Systems**

4 Credits. Students will perform service, diagnostic and repair procedures on manual transmission/transaxles, drive axles, differentials and transfer cases. Students will perform service, diagnostic and repair procedures on High Voltage axles, transmission and other components in the driveline system. Pre-requisite: Automotive Computer Control Systems (32-404-324) or Advanced Engine Systems (32-404-329)

32-404-339**Applied Automotive Maintenance**

1 Credit. Students apply automotive maintenance skills, provide lab support, and mentor fellow students taking the Automotive Maintenance course. Expanding on the fundamental concepts of automotive maintenance, students develop advanced knowledge, skills, and abilities to prepare for the ASE Automotive Maintenance G1 certification exam. Particular emphasis is placed on learning outcomes associated with engine repair, automatic and manual transmissions, brakes, steering and suspension, electrical diagnosis, and HVAC systems. Pre-requisite: Automotive Maintenance (32-404-314)

32-404-350**Auto Tech Occupational Internship**

2 Credits. Students apply technical theory & skills, by maintaining, diagnosing and repairing automobiles and light trucks. Students practice the necessary personal and professional skills essential to be successful as an Automotive Technician. Pre-requisite: Automotive Maintenance (32-404-314)

32-404-400**Advanced Braking Systems**

1 Credit. Students diagnose, service, and repair electrical and electronic systems relating to anti-lock brakes and electronic stability control systems. Students will learn the theory of operation, perform diagnostic procedures and practice problem-solving methods.

32-442-301**Related Welding**

2 Credits. The student creates weldments in flat, vertical, horizontal, and overhead positions. These weldments will utilize SMAW, MIG, TIG, brazing and oxyfuel. All operations will adhere to AWS Code.

32-442-302**Related Welding**

1 Credit. The student creates weldments in flat, vertical, horizontal, and overhead positions. These weldments will utilize SMAW, MIG, TIG, brazing and oxyfuel. All operations will adhere to AWS Code.

32-442-308**Blueprint Reading-Welding 1**

1 Credit. Students learn the basic concepts and fundamentals of blueprint reading. Students apply the use of basic mechanical drafting skills to basic shop sketching. Students develop skills in recognizing basic lines and views in reading a welding print.

32-442-309**Blueprint Reading-Welding 2**

1 Credit. Students interpret the use of a wide variety of symbols and abbreviations used in welding and how they are applied to assembly and detailed prints. Students use their knowledge of welding symbols to assemble projects.

32-806-303**Science of Mechanics**

2 Credits. Students compute work, power, acceleration, heat, pressure, and other physical quantities. They explore simple machines and their applications. Students apply those physical quantities to automotive and agricultural power situations. Pre-requisite: Applied Mathematics (31-804-305) or Occupational Math (30-804-313) and Occupational Math-Technical (31-804-315)

50-413-501**Industrial Electrician I**

4 Credits. Students demonstrate electrical safety and first aid; choose and properly utilize tools of the trade for installation, repair and test electrical devices; apply basic electrical theory to basic wiring; and begin to use the National Electric Code. Note: Students must be indentured in the Industrial Electrician Apprenticeship Program.

50-413-502**Industrial Electrician II**

4 Credits. Students apply the theory of magnetism and electromagnetism (generation and utilization) to motor control, line diagrams and devices using basic trigonometry, and code wiring methods. Note: Students must be indentured in the Industrial Electrician Apprenticeship Program.

50-413-503**Industrial Electrician III**

2 Credits. Students apply AC theory while measuring AC resistive, inductive, capacitive and combination circuits, using various measuring instruments and math formulas. Note: Students must be indentured in the Industrial Electrician Apprenticeship Program.

50-413-504**Industrial Electrician IV**

2 Credits. Students examine advanced motor control (contractors, magnetic starters, timers and other control devices), along with transformers for control and distribution of electricity. Note: Students must be indentured in the Industrial Electrician Apprenticeship Program.

50-413-505**Industrial Electrician V**

2 Credits. Students apply power factor correction, recognize the different types of AC motors (single phase), power distribution systems, specialty transformers, and code sections covering them. Note: Students must be indentured in the Industrial Electrician Apprenticeship Program.

50-413-506**Industrial Electrician VI**

2 Credits. Students work with 3-phase motors, look up and apply the National Electric Code sections covering motor installation, electromechanical and solid state motor control. Note: Students must be indentured in the Industrial Electrician Apprenticeship Program.

50-413-507**Industrial Electrician VII**

2 Credits. Students control processes using industrial solid state devices and apply digital fundamentals theory for industrial uses. Note: Students must be indentured in the Industrial Electrician Apprenticeship Program.

50-413-508**Industrial Electrician VIII**

2 Credits. Students program electronically programmable devices, smart motor controllers and programmable logic controllers. Note: Students must be indentured in the Industrial Electrician Apprenticeship Program.

50-413-521**Construction Electrician I**

2 Credits. Students practice basic and electrical safety, choose and properly utilize hand and power tools of the trade, and begin to use the National Electric Code and basic math. Note: Students must be indentured in the Construction Electrician Apprenticeship Program.

50-413-522**Construction Electrician II**

2 Credits. Students apply basic electrical theory and test equipment, look up and apply the National Electric Code covering devices of the trade beginning with commercial and residential wiring. Note: Students must be indentured in the Construction Electrician Apprenticeship Program.

50-413-523**Construction Electrician III**

2 Credits. Students apply electrical AC theory while using DC-AC motors to explore grounding, conduit bending, boxes and fitting. Note: Students must be indentured in the Construction Electrician Apprenticeship Program.

50-413-524**Construction Electrician IV**

2 Credits. Students examine conductor installation, cable traps, conductor termination and splices to be used in the installation of electrical services, circuit breakers and fuses, motor control devices, and electric lighting. Note: Students must be indentured in the Construction Electrician Apprenticeship Program.

50-413-525**Construction Electrician V**

2 Credits. Students gain knowledge in loading calculations, conductor selection, over current protection, raceways and boxes, wiring devices, and distribution equipment. Note: Students must be indentured in the Construction Electrician Apprenticeship Program.

50-413-526**Construction Electrician VI**

2 Credits. Students work with distribution system transformers, basic lighting, motor calculations, motor maintenance, motor controls, electricity in HVAC, and hazardous locations. Note: Students must be indentured in the Construction Electrician Apprenticeship Program.

50-413-527**Construction Electrician VII**

2 Credits. Students gain knowledge in load calculations, commercial/industrial lighting, specialty lighting, standby and emergency systems, and basic electronic theory. Note: Students must be indentured in the Construction Electrician Apprenticeship Program.

50-413-528**Construction Electrician VIII**

2 Credits. Students work with fire alarm systems, specialty transformers, advanced solid state controls, HVAC controls, welding machinery, heat tracing, and freeze protection. Note: Students must be indentured in the Construction Electrician Apprenticeship Program.

50-413-535**Construction Safety/Health OSHA**

1 Credit. The students develop a safety consciousness for working on construction sites. This is accomplished by studying the OSHA Code of Federal Regulations for the construction industry. Students gain knowledge through instructor presentations, class discussions, video presentations, and learning exercises. Students will receive an OSHA card upon successful completion of this course.

50-427-512**Level & Transit Plumbers**

0.75 Credit. Students practice using the builder's level, transit, and laser to layout building lines, grades, set pipe runs, and measure elevations and distances. Note: Students must be a Wisconsin indentured plumbing apprentice with a current state plumbing apprentice license.

50-427-558**Isometric Interpretation & Drawing**

0.5 Credit. This course will instruct the apprentice in the different areas of paper and pencil drawing. By using drafting tools the apprentice will draw plan view, isometric, cross section, elevation, and detail drawings. Using industry standards, the apprentice will label the drawings they have completed. The drawings will also be sized and vented per

Wisconsin Administrative Code, Chapters 81-87. Note: Students must be a Wisconsin indentured plumbing apprentice with a current state plumbing apprentice license.

50-427-751**Sanitary Drains 1**

2 Credits. Plumbing related instruction of sanitary drain systems. Course includes a review of codes and trade practices related to sanitary drains, drainage systems, components and applications. Note: Students must be a Wisconsin indentured plumbing apprentice with a current state plumbing apprentice license.

50-427-752**Vents and Venting Systems**

2 Credits. This course is designed to provide the apprentice with the skills to identify and design sanitary vent piping in a plumbing system in accordance with the Wisconsin Plumbing Code. The course focuses on theory, work experience, and the application of plumbing code principles through discussions, drawing exercises, work sheets, and evaluations. Note: Students must be a Wisconsin indentured plumbing apprentice with a current state plumbing apprentice license.

50-427-753**Water Distribution 1**

2 Credits. This course provides the apprentice with the skills to identify, design, install and service various applications for water supply systems that are listed in plumbing codes. Apprentices will use the code language and tables to in various plumbing systems in accordance with the Wisconsin Plumbing Code. Course topics will include commercial to single family and private well pump systems. The course focuses on theory, work experience, and the application of plumbing code principles through discussions, drawing exercises, work sheets, and evaluations. Note: Students must be a Wisconsin indentured plumbing apprentice with a current state plumbing apprentice license.

50-427-754**Water Distribution 2**

2 Credits. This course provides the apprentice with the skills to identify, design, install and service cross connection controls, water treatment equipment and multi-purpose piping systems in various plumbing systems in accordance with the Wisconsin Plumbing Code. The course focuses on theory, work experience, and the application of plumbing code principles through discussions, drawing exercises, work sheets, and evaluations. Note: Students must be a Wisconsin indentured plumbing apprentice with a current state plumbing apprentice license.

50-427-755**Sanitary Drains 2**

2 Credits. This course provides the apprentice with the skills to identify, design, install and service various applications for storm water, clear water, and drainage systems. Apprentices will use the code language and tables to in various plumbing systems in accordance with the Wisconsin Plumbing Code. The course focuses on theory, work experience, and the application of plumbing code principles through discussions, drawing exercises, work sheets, and evaluations. Note: Students must be a Wisconsin indentured plumbing apprentice with a current state plumbing apprentice license.

50-427-756**Private On-site Wastewater Treatment Systems (POWTS)**

2 Credits. This course provides the apprentice with the skills to identify, design, install and service various applications for private onsite wastewater treatment systems that are listed in plumbing codes or individual component manuals. Apprentices will use the code language and tables to in various plumbing systems in accordance with the Wisconsin Plumbing Code. Other topics will include pretreatment, soil evaluation, site planning and new technologies. The course focuses on theory, work experience, and the application of plumbing code principles through discussions, drawing exercises, work sheets, and evaluations.

50-427-757**Green Plumbing Applications**

2 Credits. This course provides plumbing apprentices with an introduction to green applications. Apprentices will be instructed on how to identify, install and maintain a variety of green products and systems. They will apply the Wisconsin Plumbing Code to various installations. This introduction will give an apprentice the basic knowledge to study for a variety of green certifications. Note: Students must be a Wisconsin indentured plumbing apprentice with a current state plumbing apprentice license.

50-427-758**Plumbing Advanced Topics/TSA**

2 Credits. This course provides the apprentice with the opportunity to select and complete an applied plumbing project in collaboration with the instructor. Projects will apply the skills required to identify, design, install and service various plumbing applications that are listed in plumbing codes. Apprentices will use the code language and tables to in various plumbing systems in accordance with the Wisconsin Plumbing Code. The course builds upon the theory, work experience, and the application of plumbing code principles addressed in previous coursework to support completing an applied hands-on project.

50-427-760**Plumbing Applications**

1 Credit. Examines a variety of real-life applications used in the plumbing trades and typically covered in paid related instruction. The units address the how's and why's behind joints and connections, rigging and signaling, hydraulics and pneumatics, plumbing and the environment, gas pipe applications, and applied electricity for plumbers. Note: Students must be a Wisconsin indentured plumbing apprentice with a current state plumbing apprentice license.

50-427-761**Plumbing Service and Repair**

1.25 Credits. This course is designed to provide apprentices with the academic and hands-on experience needed to perform plumbing service and repair tasks. Emphasis is placed on the safe and responsible use of tools and equipment. Topics include clogged drains, garbage disposers, water treatment equipment, water closets, urinals, flush valves, cold weather plumbing problems, water systems, pumps and faucets. Note: Students must be a Wisconsin indentured plumbing apprentice with a current state plumbing apprentice license.

50-427-762**Plumbing Blueprint Reading**

1.25 Credits. Provides instructional material for plumbing apprentices to develop the ability to interpret trade blueprints and to plan the installation of the required plumbing. Skills covered include identifying blueprint features, interpreting specifications, reading a blueprint for the purpose of layout work, listing material from print, and coordinating installation of piping with other trades. Blueprint reading practice will be offered while working with an actual print. Note: Students must be a Wisconsin indentured plumbing apprentice with a current state plumbing apprentice license.

50-427-763**Plumbing PRI Independent Study**

1 Credit. Provides additional hours for plumbing apprentices who require time to complete their 572 hours of paid related requirement. Up to 72 hours can be scheduled as need in an independent study format. Course hours can be used to make up for time lost due to injury or illness, or to catch-up apprentices who start mid-term for example. Note: Students must be a Wisconsin indentured plumbing apprentice with a current state plumbing apprentice license.

50-427-770**Plumbing PRI Independent Study - Makeup Hours**

0.5 Credit. Provides additional hours for plumbing apprentices who require time to complete their 572 hours of paid related requirement. Up to 72 hours can be scheduled as need in an independent study format. Course hours can be used to make up for time lost due to injury or illness, or to catch-up apprentices who start mid-term for example. Note: Students must be a Wisconsin indentured plumbing apprentice with a current state plumbing apprentice license.

50-620-701**Trade Math Review for Mechatronics Apprentices**

1 Credit. Course competencies include building apprentice skills working with fractions, decimals, formulas and ratios commonly used by the trade. Measurement, tolerances and interpreting trade related information will help apply math concepts to industrial and manufacturing work processes. Basic algebra, geometry and trigonometry will be applied to mechatronics job duties and tasks. Converting between US and metric units is also included. Course provides a foundation for mechanical and electrical problem-solving involving math. Note: Students must be indentured in the Mechatronics Technician Apprenticeship Program.

50-620-702**Mechatronic Principles**

2 Credits. Course learning outcomes will examine both introductory mechanical & electrical concepts as a foundation for future coursework and on-the-job learning. Troubleshooting principles associated with mechatronics will also be introduced. Apprentices will explore safety, rigging, measurement, mechanical principles, electrical principles, mechanisms, metallurgy, and troubleshooting. Note: Students must be indentured in the Mechatronics Technician Apprenticeship Program.

50-620-703**DC Electricity for Mechatronics**

1 Credit. This course introduces the fundamental concepts and computations related to DC electricity. Emphasis is placed on circuit analysis and the problem-solving skills necessary for the maintenance of mechatronic systems and manufacturing equipment. Competencies related to metering and safe use of measuring devices are included. Note: Students must be indentured in the Mechatronics Technician Apprenticeship Program.

50-620-704**AC Electricity for Mechatronics**

1 Credit. This course is designed to introduce the mechatronic technician apprentice to the basic concepts of alternating current. Emphasis is placed on circuit analysis and the problem-solving skills necessary for the maintenance of mechatronic systems and manufacturing equipment. Note: Students must be indentured in the Mechatronics Technician Apprenticeship Program.

50-620-705**Motors & Motor Control for Mechatronics**

2 Credits. This course examines the fundamentals of electric motors and motor control. Apprentices will learn to recognize and draw basic symbols, use the language of motor control, and apply these in industry adopted formats. Apprentices will also learn to draw and read ladder and wiring diagrams, and be introduced to the logic used in motor control. Learners will apply this logic to correctly interpret, install, service, and wire control circuits. Wiring of panels, machines, and systems will also be examined. Note: Students must be indentured in the Mechatronics Technician Apprenticeship Program.

50-620-706**Electrical Codes for Mechatronics**

1 Credit. Apprentices will examine the National Electric Code and apply information to work practices involving mechatronic systems. Terminology needed to communicate and coordinate electrical work with other trades will be explored. Note: Students must be indentured in the Mechatronics Technician Apprenticeship Program.

50-620-707**Welding Basics for Mechatronics**

1 Credit. Course compares common welding processes and develops apprentice skills related to welding, cutting, heating and using oxy-gas. Welding with arc and MIG will help develop competency working with metal. Additional course learning outcomes may include common cutting and joining techniques associated with applicable trade work processes. Note: Students must be indentured in the Mechatronics Technician Apprenticeship Program.

50-620-708**Fluid Power Systems for Mechatronics Apprentices**

2 Credits. Course learning outcomes include inspecting, testing, servicing, and troubleshooting hydraulic, pneumatic, compressed air, and vacuum systems. Apprentices will review safety procedures for various common maintenance tasks. Note: Students must be indentured in the Mechatronics Technician Apprenticeship Program.

50-620-709**Servos and Drives for Mechatronics**

1 Credit. Course introduces concepts, terminology, and safety associated with drives and servos used in industry and manufacturing. Course is designed to give the apprentice the knowledge required to program, service and maintain variable frequency drives and related equipment. Course learning outcomes include setting up and programming drives in a lab, shop or training center setting. Note: Students must be indentured in the Mechatronics Technician Apprenticeship Program.

50-620-710**Power Transmission Systems for Mechatronics**

1 Credit. Course learning outcomes include examining mechanical power transmission systems and components. Belts, chain drives, gears & gear drives, couplings, and clutches & brakes will be examined. Apprentices will develop skills inspecting, installing, and maintaining power transmission systems and troubleshooting failures. Apprentices will also learn about safety, documenting work performed, communicating the status of work, and working collaboratively. Note: Students must be indentured in the Mechatronics Technician Apprenticeship Program.

50-620-711**Machining Concepts for Mechatronics**

2 Credits. Course introduces cutting, drilling, lathes, and milling operations to apprentices in mechatronics. Course topics also include work holding devices, measuring tools and measurement, safety, machine guards, tooling, print reading, and speeds & feeds. Math skills will be applied to machining related work practices. Note: Students must be indentured in the Mechatronics Technician Apprenticeship Program.

50-620-712**Introduction to Programmable Logic Controllers**

2 Credits. This course is designed to teach the fundamentals of programmable logic controller and its programming software. The course will introduce terminology, concepts, schematic reading and basic programming. Technologies and PLC use in manufacturing and mechatronic systems will be emphasized. Note: Students must be indentured in the Mechatronics Technician Apprenticeship Program.

50-620-714**HMI Technologies & PLC Applications for Mechatronics**

2 Credits. Human machine interface devices, software and technologies will be examined for mechatronic systems. Apprentices will work in a lab/shop/training center setting to create touchscreens, set-up networks, and configure systems. Note: Students must be indentured in the Mechatronics Technician Apprenticeship Program.

50-620-715**Introduction to Robotic Systems for Mechatronics**

2 Credits. Course introduces the apprentice to the robot teach pendant and methods of robot jogging. Learners will be taught to replace servo motors, re-master the robot, and back up robot software and programs. Maintenance, servicing and safety will be emphasized. Cable management systems will be examined. Note: Students must be indentured in the Mechatronics Technician Apprenticeship Program.

50-620-716**Introduction to Robotic Integration**

3 Credits. Mechatronic apprentices will explore offsets, vision systems and system integration using robotic simulation and capstone project. The project will tie everything learned during their apprenticeship together – safety, machine integration, vision systems, CNC, machine applications for robotics, troubleshooting, and work documentation. Note: Students must be indentured in the Mechatronics Technician Apprenticeship Program.

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