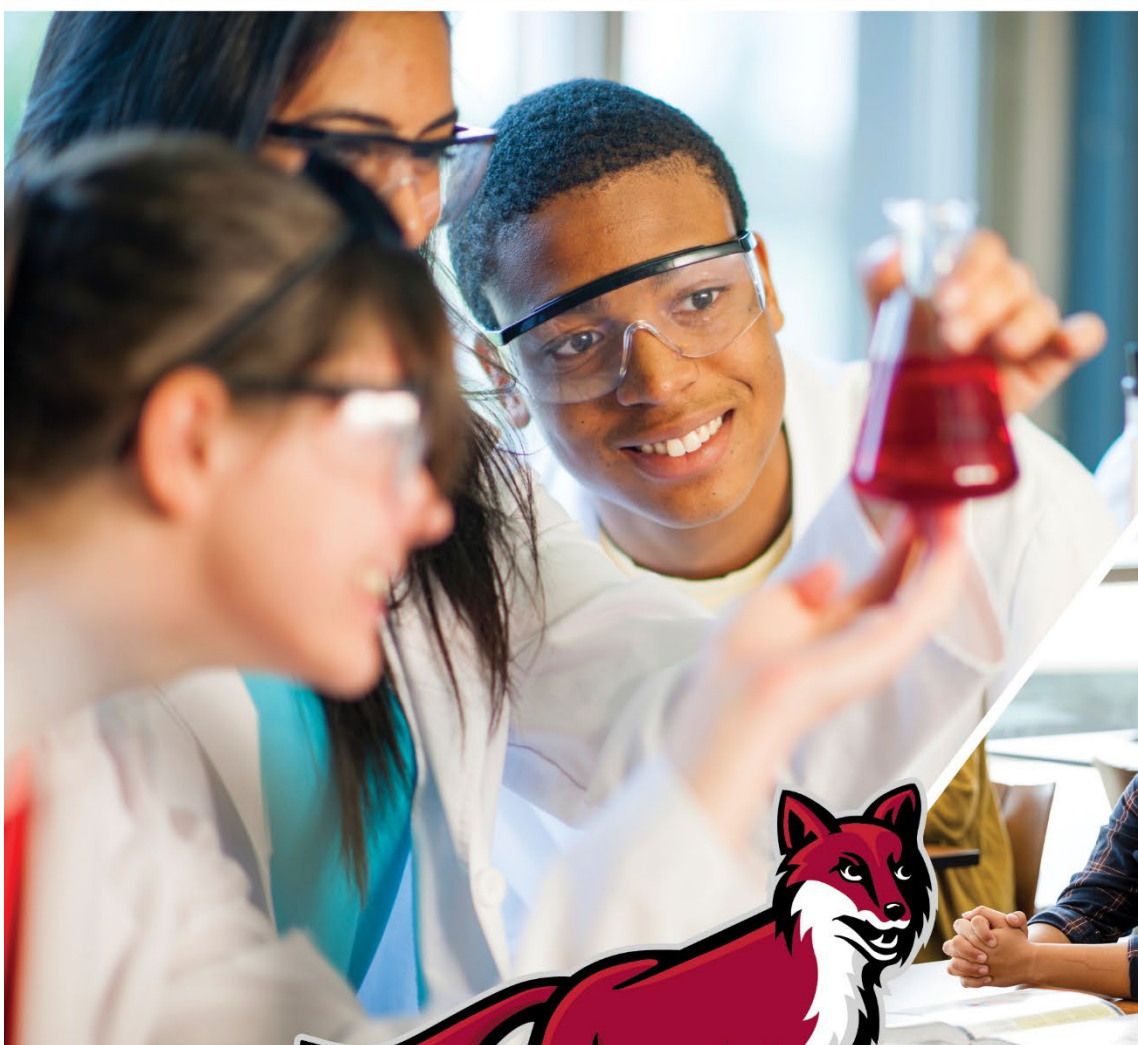




**Fox Valley**  
TECHNICAL COLLEGE®  
*Knowledge That Works*

# Start College Now



[www.fvtc.edu/StartCollegeNow](http://www.fvtc.edu/StartCollegeNow)

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This course guide is not to be considered in any way a contractual document between Fox Valley Technical College and the student. Administration reserves the right to change curricula, regulations, and course offerings as published in this course guide during the period of any student's attendance. Any changes made will be in accordance with policies, rules, and regulations as established by the Wisconsin Technical College System (WTCS) Board and will be based upon the changing needs of the occupational areas involved. Not all courses listed in this course guide are scheduled every term.

## Introduction

Start College Now (SCN) at Fox Valley Technical College is a program designed to introduce high school students to the world of higher education. In addition to getting a first-hand view of the college experience, students who successfully complete their SCN courses earn college credit for their effort. These credits may be applied toward a degree at Fox Valley Technical College or at many other colleges in Wisconsin.

In conjunction with their high school counselor, approved SCN students select courses from the SCN Course Guide. They complete all requirements and register for classes just like all other college students. SCN students are impacted by the same benefits, requirements, and restrictions as all other students attending the college. They must be aware of and comply with college attendance, grading (per the class syllabus), and refund policies. Students must be offered a minimum of 18 credits during their two years of eligibility (11<sup>th</sup>-12<sup>th</sup> grades) but can be limited to a maximum number of credits per term by their high school.

While SCN courses are pre-approved by Fox Valley Technical College and a student's own high school, there are no classes that are held open strictly for SCN students. Because of this, it is important that students participating in the program make wise and timely course selections and that they follow the schedule outlined for each term by the SCN staff. For simple explanations of commonly used terms, students can refer to the definitions included at the end of this course guide.

## Start College Now Checklist

- ☐ Fill out Start College Now Interest Form online at [www.fvtc.edu/startcollegenow](http://www.fvtc.edu/startcollegenow).
- ☐ Upon receiving welcome e-mail, follow instructions outlined in e-mail to become familiar with Start College Now processes and deadlines.
- ☐ Check e-mail account and Blackboard regularly for important information regarding Start College Now.
- ☐ Meet with your high school counselor to select courses from the Start College Now Course Guide.
- ☐ Submit completed Start College Now application form to high school by deadline (March 1 for fall classes, October 1 for spring classes).
- ☐ Submit transcripts, test scores, or other pre-requisite requirements (as needed).
- ☐ Register for college classes at Fox Valley Technical College.

Start College Now staff is ready to help students, parents, and high school counselors through their academic experience at Fox Valley Technical College. We can be reached via email at [startcollegenow@fvtc.edu](mailto:startcollegenow@fvtc.edu) or via phone at (920) 225-5900.

## Refund Policy

Refunds are processed according to the Wisconsin Technical College System refund policy. Wisconsin Technical College 10.08, Wisconsin Administrative Code, establishes the requirements for district policies and procedures related to student fee refunds. Refunds are applicable only from the date you officially drop the class through Enrollment Services or MyFVTC. FVTC will **not** drop any classes for you for non-payment or non-attendance. Drop requests are **not** accepted through instructors. Refunds are based on the official start date of the class, not by the date the student first attends/accesses the class or obtains the class materials.

### 100% Refunds

If the district cancels a class, 100% of student fees will be refunded. If you drop before the first day of class, 100% of student fees will be refunded. If you drop a class before or at the time 10% of the class's potential hours of instruction have been completed and add another class on the same day, you will receive a 100% credit for all applicable student fees for the dropped class. This credit will be applied to the fees of the added class. If the credit exceeds the fees for the added class, the excess amount will be refunded to you. If the credit is less than the fees applicable to the added class, the shortfall will be billed.

### 80% Refunds

80% of all applicable student fees are to be refunded if the class is dropped before or at the time 10% of the class's potential hours of instruction have been completed. A "W" grade will be assigned.

### 60% Refunds

60% of all applicable student fees are to be refunded if the class is dropped after 10% but before more than 20% of the class's potential hours of instruction have been completed. A "W" grade will be assigned.

### 0% Refunds

NO refund will be provided if the class is dropped after 20% of the class's potential hours of instruction have been completed and a "W" grade will be assigned. Courses cannot be dropped if more than 60% of the class's potential hours of instruction have been completed, and will be assigned an A-F grade as earned.

### Refund Appeals

All refund appeals must be initiated by sending a written request with proper documentation to the Registrar no later than twenty-one (21) calendar days after the class end date. A refund request made after the 21 day grace period will **not** be accepted and the student will be responsible for payment. Refunds for extenuating circumstances (situations outside of your control) will be made at FVTC's discretion.

## Attendance Policy

Students enrolled in courses at Fox Valley Technical College are expected to attend and participate in classes regularly to receive the maximum benefit from their educational experience. Attendance is the responsibility of the individual student, including notification of absence as required by the instructor and arranging for the completion of missed course work.

Specific attendance standards for courses, labs, internships, and clinicals may be established by instructional departments and authorized by the division dean. If specific attendance requirements are established, they will be communicated to students in writing (via the course syllabus), by the instructor at the first class session, and attendance must be documented by the instructor. Departments and instructors are expected to make reasonable accommodations for student absences due to illness, family emergencies, extreme weather conditions, and other extenuating circumstances.

## Grading

As an extension of the above information on attendance policy, if a student is absent from an assigned course for two consecutive weeks or 10% of class hours (unexcused absence), the instructor must immediately assign one of the following grades in the grading system:

**WI** – If the withdrawal occurs during the first 60% of the course or due to extenuating circumstances as determined by the instructor.

**F** – If the withdrawal occurs during the final 40% of the course and the instructor determines there are no extenuating circumstances involved.

**Receiving one of the above grades does NOT indicate that the student has dropped the class. Students receiving WI or F grades are not eligible for refunds. In addition, participating high schools have attendance policies for their SCN students.**

Other grade types to be familiar with:

**NS** – Issued by an instructor if the student does not show up for class (**does not drop student from class**).

**W** – Student initiated withdrawal before 60% of class hours are completed.

## Accuplacer

If a course requires Accuplacer scores as a pre-requisite, you will be required to complete the test prior to enrollment in the course. We recommend scheduling the test as early as possible.

Your high school may offer Accuplacer tests. Check with your High School Guidance Office. If you cannot take the Accuplacer test at your high school, you will need to schedule a time to take it at an FVTC campus. Go to the FVTC Assessment web page at <https://www.fvtc.edu/admissions/skills-assessment#accuplacer> to arrange an Accuplacer test through FVTC. There are also Accuplacer study materials and resources available through this link. The cost of the Accuplacer test at Fox Valley Technical College is **\$15**. Your high school does not cover this fee. The testing fee is the responsibility of the student.

**NOTE: There are alternative items that waive Accuplacer scores. The ACCUPLACER will be waived if you meet one of the following options:**

- High school GPA of 2.75 or higher
- Previous college credits in Math and or English at the 100+ level with a grade of C or better
- Have taken and earned the required score on the ACT
- Note: ONLY ACCUPLACER scores may be waived. The TEAS and Bennett Mechanical exams are required for the respective programs.

## Bennett Mechanical Comprehension Test

The Bennett Mechanical Comprehension Test (BMCT) is used to determine a student's aptitude for learning mechanical skills in an applied mechanical job. It measures a complex set of abilities. The BMCT is a 30 minute timed test, costing **\$14**. Your high school does not cover this fee. The testing fee is the responsibility of the student. The BMCT is a pre-requisite for certain classes in automotive programs. The following programs also require completion of the BMCT for admission:

- Automotive Technician (TD)
- Automotive Technician – Imports (TD)
- Automotive Technology (AAS)
- Automotive Technology – GM ASEP (AAS)
- Automotive Technology – Imports (AAS)



## Disability Accommodations

High School students/teachers requesting disability-related accommodations while earning college credit at FVTC, are encouraged to contact Disability Services at (920) 735-2569 or email [disabilityservices@fvtc.edu](mailto:disabilityservices@fvtc.edu). Disability Services offices are located on the Appleton Campus in E122, and the Oshkosh Riverside Campus Rm 101.

[www.fvtc.edu/disabilityservices](http://www.fvtc.edu/disabilityservices)

## General Program Information

All degree programs at Fox Valley Technical College are designed to prepare students for entry into the career field of their choice. Because of this, there is great variety in the courses required for individual programs. Students wishing to apply to a program at Fox Valley Technical College may do so **during** their senior year for admission into a term that occurs **after** they have completed high school.

If a student knows which degree program they want to enter at Fox Valley Technical College, Start College Now provides them the opportunity to complete courses which are applicable to that degree. Ideally, students should reach out to our Admissions team to receive up-to-date program information and to ensure a seamless transition.

To learn the admissions requirements for a given program, students and counselors should visit [www.fvtc.edu/programs](http://www.fvtc.edu/programs). From the list of areas of study, select the appropriate area, then select the program of interest. Click on *More Info*. Below the program description, there will be several icons with additional program information, career opportunities, and a list of additional options. From this list, select *Admissions Requirements* for a list of requirements for that particular program. On each program page, you will also find a Course List for each program.

While degree program course requirements vary widely, some courses are consistently required to ensure students have a strong foundation of general knowledge. These are referred to as General Education courses. Below is a partial list of **commonly** required General Education courses at Fox Valley Technical College:

Class Title	Catalog #	Credits
Written Communication	10-801-195	3
English Composition 1	10-801-136	3
Oral/Interpersonal Communication	10-801-196	3
Introduction to Diversity Studies	10-809-172	3
Introduction to Psychology	10-809-198	3
Psychology of Human Relations	10-809-199	3
College Mathematics	10-804-107	3
Speech	10-801-198	3
General Biology	10-806-114	4
Introduction to Ethics	10-809-166	3
Economics	10-809-195	3
Introduction to Sociology	10-809-196	3
Contemporary American Society	10-809-197	3

## **Agriculture, Horticulture & Natural Resources**

### **Agriculture / Agri-Business / Farm Operations**

#### **Integrated Pest Mgmt & Weed Identification**

**10-006-102**

**3 Credits**

*Course Typically offered in Fall*

Acquaints students with the general use, safety, laws and regulations for chemical application in Wisconsin. Completion of the Wisconsin Commercial Applicators Certification is an optional portion of the course. Identification of the major weeds found in Wisconsin crop lands is emphasized.

*SCN students should attend the In-Person or Hybrid sections of the course.*

#### **Crop Scouting Training**

**10-006-109**

**3 Credits**

*Course Typically offered in Spring*

Includes hands-on identification and management of insects, diseases and seedling weeds found in Wisconsin crops. Crop development and herbicide damage issues will also be covered.

#### **Dairy/Livestock Nutrition**

**10-006-113**

**3 Credits**

*Course Typically offered in Fall*

Acquaints the students with the nutrients essential for livestock growth, production and reproduction. The anatomy and physiology of digestion and nutrient absorption will be discussed for the single stomach and ruminant animal. Proper feed sampling techniques, feed analysis and other nutritional information will be covered in preparing the student for Dairy/Livestock Ration Balancing.

*It is highly recommended that students have completed HS Biology before taking this course.*

#### **Agricultural Crop Production**

**10-006-119**

**3 Credits**

*Course Typically offered in Fall*

Prepares students to recognize and implement basic crop production management techniques for corn, soybeans, alfalfa, small grains and general forages used on Wisconsin farms. Field preparation, fertility, seed selection, planting and in-season management of specific crops will be emphasized.

*SCN students should attend the In-Person or Hybrid sections of the course.*

#### **Introduction to Agribusiness**

**10-006-133**

**3 Credits**

*Course Typically offered in Fall/Spring*

Provides an overview of, and exploration into career pathways and employment opportunities, in the agricultural industry. Key issues discussed include trends and economic concepts of production, marketing and consumption of agriculture products, principles of management, and financial management.

*SCN students should attend the In-Person or Hybrid sections of the course.*

#### **Agribusiness Sales**

**10-006-134**

**3 Credits**

*Course Typically offered in Fall/Spring*



Covers the basic principles of agribusiness sales. Topics include recognizing potential customers, building a positive customer relationship, designing sales plans, and using market and sales databases. The concepts will be presented using hands-on activities. Students will complete a sales project and presentation.

## **Animal Science Fundamentals**

**10-006-140**

**3 Credits**

*Course Typically offered in Fall/Spring*

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. Students will experience animal concepts through the completion of hands-on activities.

*SCN students should attend the In-Person or Hybrid sections of the course. It is recommended that students have completed HS Biology.*

## **Crop Science**

**10-006-141**

**3 Credits**

*Course Typically offered in Spring*

Provides fundamental knowledge of the major crops grown in Wisconsin. Topics include crop growth and development, physiology, and nutrition; seed germination and selection; environmental factors and agronomic problems that affect crop development.

*SCN students should attend the In-Person or Hybrid sections of the course..*

## **Introduction to Soils**

**10-006-143**

**3 Credits**

*Course Typically offered in Fall*

Provides fundamental knowledge of soils and growth media. Course topics include soil formation and development, soil components, soil profile, soil classification and soil conservation. Students will experience soils concepts through the completion of hands-on activities.

*SCN students should attend the In-Person or Hybrid sections of the course.*

## **Dairy/Livestock Herd Management**

**10-006-145**

**3 Credits**

*Course Typically offered in Fall*

Covers the herd health and reproductive systems of the dairy and livestock animals. The class will cover various herd health problems, including mastitis, milk fever and similar common livestock health problems. A herd health and reproductive management program will be developed.

## **Dairy Genetics and Reproduction**

**10-006-148**

**3 Credits**

*Course Typically offered in Spring*

Designed for the student who needs a comprehensive knowledge of dairy genetics and reproduction. Emphasis is on basic genetic principles and sire selection. Students will learn the anatomy and physiology of the bovine female reproductive tract and the management of the estrous cycle in cattle.

*Prereq: Animal Science Fundamentals 10-006-140. It is highly recommended that students have completed HS Biology before taking this course.*

## **Agronomy Equipment**

**10-006-150**

**3 credits**

*Course Typically offered in Fall*

Provides students with an overview of various types of agronomy-related equipment including chemical and fertilizer applicators, planters and grain drills. Equipment operation, maintenance, calibration and safety will be emphasized. Both large and small equipment will be operated during the class.

**Precision Ag Overview****10-006-154****3 Credits***Course Typically offered in Fall*

Provides an overview of precision farming concepts and the tools of precision farming (GPS, GIS and VRT). Covers the introductory use of each of these tools in the processes of a precision farming system. Hands-on activities with real farm data will provide an initial experience in the use of these tools. Economic and environmental benefits will also be discussed.

*SCN students should attend the In-Person or Hybrid sections of the course.***Farm Business Management****10-080-104****2 Credits***Course Typically offered in Fall*

Covers practical use of computer-based farm record system(s) for farm business management and financial analysis. Topics include farm business goals, financial statements, selection and use of farm credit, farm business arrangements, estate planning, and farm income taxes.

*This course is tailored for Farm Operation Technical Diploma students and may not transfer to other institutions.***Feeding Modern Livestock Operations****10-080-105****2 Credits***Course Typically offered in Fall*

Acquaints the student with the nutrients essential for livestock production and reproduction. Anatomy and physiology of digestion and absorption are discussed for single stomach and ruminant animals. Basic principles of feeding modern livestock will be discussed. Introduces the student to the mechanics of balancing livestock rations.

*This course is tailored for Farm Operation Technical Diploma students and may not transfer to other institutions.***Precision Agriculture****10-080-106****2 Credits***Course Typically offered in Fall*

Provides students with an introduction to common Precision Agriculture technologies used in crop production today. Topics include: satellite technology, hardware, data collection, variable rate control of seed, automatic section control, yield monitors, and new technologies in agriculture. The challenges and benefits of adopting Precision Agriculture technologies on the farm will also be discussed.

*This course is tailored for Farm Operation Technical Diploma students and may not transfer to other institutions.***Tractor Preventive Maintenance****10-080-107****2 Credits***Course Typically offered in Spring*

Provides students with the knowledge and skills needed to do some general maintenance on diesel engines and electrical systems. Students will learn basic engine and electrical fundamentals.

*This course is tailored for Farm Operation Technical Diploma students and may not transfer to other institutions.***Crop Management Principles****10-080-108****2 Credits***Course Typically offered in Spring*

Covers the basic principles and management techniques for corn, soybeans, alfalfa, and small grains grown on Wisconsin farms. Includes information on field preparation, pest management, seed selection, and in season management of specific crops.

*This course is tailored for Farm Operation Technical Diploma students and may not transfer to other institutions.*

<b>Agricultural Commodity Marketing</b>	
<b>10-080-115</b>	<b>2 Credits</b>
<i>Course Typically offered in Spring</i>	
Explores crop, livestock, and dairy markets. Student develop an understanding of the basic principles of commodity marketing and the ability to apply these principles to the distribution of farm products. Commodity marketing strategies will be taught in order to reduce financial risk of farms.	
<i>This course is tailored for Farm Operation Technical Diploma students and may not transfer to other institutions.</i>	
<b>Conservation &amp; Natural Resources</b>	
<b>Natural Resources Common Topics</b>	
<b>10-057-143</b>	<b>2 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Introduces U.S. public land surveys, topographic maps, orienteering principles and mapping. Other topics include the polar planimeter, dot grid, abney levels and clinometers, basic aerial photo uses, and chainsaw use and maintenance.	
<i>Coreq: College Mathematics 10804107</i>	
<b>Exploring Natural Resources</b>	
<b>10-057-183</b>	<b>3 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Provides basic study of natural resources, focusing on their abundance, importance, and conservation. The physical biological variables of the environment will be studied in field and classroom settings. Career development will be incorporated to expose students to job-related activities for the following core areas: wildlife and fisheries, forestry, surveying, outdoor recreation, soils, and water quality and wastewater management.	
<b>Ecology</b>	
<b>10-057-109</b>	<b>2 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Examines the relationships and interrelationships of living organisms in their environment. Students study natural selection and speciation, environmental conditions, populations and competition, succession, energy flow and biogeochemical cycles, and the diversity of ecosystems.	
<i>Coreq: Written Communication (10801195) or English Composition 1 (10801136)</i>	
<b>Plant Identification</b>	
<b>10-057-140</b>	<b>1 Credit</b>
<i>Course Typically offered in Fall</i>	
Provides a basic study of the trees, grasses, herbs and aquatics of Wisconsin. The class focuses on the principal species of seven major plant communities: forest, bog, agriculture, prairie, marsh, shrub and beach.	
<b>Wildland Fire Training</b>	
<b>Wildfire Intro S130/S190/L180</b>	
<b>10-058-160</b>	<b>2 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Prepares new firefighters in basic firefighting skills and behavior factors that will aid them in the safe and effective control of wildland fires.	
<b>Horticulture</b>	

<b>Introduction to Horticulture</b> <b>10-001-111</b>	<b>3 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Provides an overview of the horticulture profession, including its role and importance throughout history. Current trends and career opportunities will be covered. Particular attention is given to horticulture crops, plant classification, their use, and the interrelationships between the environment, plant growth and plant development.	
<i>Coreq: Landscape Tools 94001001</i>	
<b>Horticulture Soils</b> <b>10-001-112</b>	<b>3 Credits</b>
<i>Course Typically offered in Fall</i>	
Explores the properties of soils and applies them to horticultural uses as a growing medium and as an engineering base for landscaping.	
<b>Hydroponic Growing &amp; Systems</b> <b>10-001-121</b>	<b>2 Credits</b>
<i>Course Typically offered in Spring</i>	
Explores various hydroponic systems, their specific plant material, and growing conditions. Students will work hands-on with several units and plant materials.	
<b>Interiorscaping</b> <b>10-001-122</b>	<b>2 Credits</b>
<i>Course Typically offered in Spring</i>	
Studies the identification, characteristics, and physical requirements of interior plants.	
<b>Turf Management &amp; Irrigation Systems</b> <b>10-001-130</b>	<b>2 Credits</b>
<i>Course Typically offered in Fall</i>	
Studies the overall basics of lawn (turf) applications including soils, grading, Wisconsin grasses and maintenance. Students will develop an understanding of the design, operation and maintenance of irrigation systems.	
<b>Woody Ornamental Plant ID</b> <b>10-001-158</b>	<b>3 Credits</b>
<i>Course Typically offered in Fall</i>	
Explains plant classification and identification techniques. Students will utilize these techniques to properly name and identify commonly used deciduous and evergreen trees and shrubs. Culture and care will also be discussed.	
<b>Survey of Herbaceous Plants</b> <b>10-001-159</b>	<b>3 Credits</b>
<i>Course Typically offered in Fall</i>	
Studies commonly used annual, bulb and perennial herbaceous plants, with an emphasis on their use in the landscape, culture and care.	
<i>Coreq: Landscape Tools 94001001</i>	
<b>Landscape Plants, Maintenance of</b> <b>10-001-170</b>	<b>3 Credits</b>
<i>Course Typically offered in Fall</i>	

Studies the maintenance and care of woody plants, including evergreens, vines, garden flowers, bulbs and nursery stock. Discusses pruning, training, fertilizing, watering, planting, physical and chemical control of plant growth, transplanting, winterizing, weed control and production.

*Coreq: Landscape Tools 94001001*

## **Landscape Design 1**

**10-001-174**

**3 Credits**

*Course Typically offered in Fall*

Focuses on the landscape design process through the understanding of concepts such as outdoor room, design principles, site function and form composition. The course also includes drafting, site analysis and graphics.

*Coreq: Horticulture Design Tools 94001002*

## **Outdoor Power Equipment**

### **Four Stroke Small Engines**

**10-461-112**

**3 Credits**

*Course Typically offered in Fall*

Gives an in-depth overview of engine design and operational theory. Parts identification, function and repair are incorporated into the disassembly, reconditioning and assembly of small air-cooled engines. Safety glasses are required.

### **Intro to Outdoor Power Equipment**

**10-461-150**

**3 Credits**

*Course Typically offered in Fall*

Introduces the student handbook and program expectations. Emphasizes safety, precision measuring, fasteners, tool usage and basic shop skills. Utilizes computer software programs to create work orders and invoices.

*Coreq: OPE Textbooks-1st Semester 94461002*

### **OPE Two Stroke Engines**

**10-461-152**

**3 Credits**

*Course Typically offered in Fall*

Emphasizes the repair of two-cycle, small four-cycle and recreational engines used on chainsaws, cutoff saws, line trimmers, backpack blowers, hedge trimmers and other small power units. Students will learn new emission requirements and understand the current laws on product liability.

### **OPE DC Electrical Systems & Fuel Management Systems**

**10-461-153**

**3 Credits**

*Course Typically offered in Fall*

Covers Ohm's Law and electrical theory, operation and troubleshooting methods for batteries, starting circuits, charging circuits and accessories. Students will use electronic fuel injection (EFI) software applications to monitor engine functions and diagnose performance complaints. Manufacture certifications may be available in this course.

*Coreq: OPE Textbooks-1st Semester 94461002*

### **Hydraulics, Drivelines & Chassis**

**10-461-154**

**3 Credits**

*Course Typically offered in Fall*

Focuses on the equipment used in groundskeeping, landscaping and maintenance of turf grass. Belt and gear drives, hydrostatic transaxles and hydraulic systems used for lawn mowers, tillers, snowblowers, garden tractors, zero-turn mowers and compact tractors are included in this course. Manufacture certifications may be available in this course.

Coreq: OPE Textbooks-1st Semester 94461002

### **OPE Diesel Engine Systems**

**10-461-155**

**3 Credits**

*Course Typically offered in Spring*

Provides technicians with skills and knowledge of diesel engine theory, compression, fuel, electrical, cooling and lubrication systems along with emissions and Tier IV compliance. Manufacture certifications may be available in this course.

### **Motorcycle & Moped Service & Repair**

**10-461-156**

**3 Credits**

*Course Typically offered in Spring*

Teaches students pre-delivery setup and inspections on motorcycles & mopeds. Tune-up procedures and maintenance repairs will be emphasized, including clutches, transmissions, drivelines, ABS brakes, tires, wheels and suspensions. Proper trailer securements and safety tie-downs of motorcycles will also be covered.

Coreq: OPE Textbooks-2nd Semester 94461003

### **ATV & UTV Service & Repair**

**10-461-157**

**3 Credits**

*Course Typically offered in Spring*

Teaches students pre-delivery setup and inspections on ATV/UTV. Tune-up procedures and maintenance repairs will be covered, including clutches, transmissions, drivelines, brakes, tires, wheels and suspensions. Manufacture certifications may be available in this course.

Coreq: OPE Textbooks - 2nd Semester 94461003

### **Motorcycle & Moped Electrical Diagnostics**

**10-461-158**

**3 Credits**

*Course Typically offered in Spring*

Emphasizes motorcycle & moped electrical systems including starting, charging, and accessory circuits, schematics, ABS brakes, diagnostics and troubleshooting. Electronic fuel injection (EFI) software applications will be used to monitor engine functions and diagnose problems.

### **ATV & UTV Electrical & Diagnostics**

**10-461-159**

**3 Credits**

*Course Typically offered in Spring*

Emphasizes ATV & UTV electrical systems including starting, charging, and accessory circuits, schematics, diagnostics and troubleshooting. Electronic fuel injection (EFI) software applications will be used to monitor engine functions and diagnose problems.

## **Animal Husbandry**

### **Veterinary Office Procedures 1**

**10-091-131**

**1 Credit**

*Course Typically offered in Fall*

Covers the development of appropriate public, client and staff relations. Telephone etiquette, making appointments, managing records, client services and education, and personal grooming and attire will be addressed. Legal requirements of record keeping as well as an introduction to the rules and regulations governing the veterinary and laboratory animal technician will also be discussed.

*In person registration is strongly encouraged for Veterinary Technician courses.*

*Prereq: Full-Time Vet Tech plan; Coreq: Veterinary Medical Terminology 10091170 AND Animal Science*

*Fundamentals 10006140 OR Prereq: Part-Time Vet Tech plan; Coreq: Veterinary Medical Terminology 10091170*

## **Veterinary Medical Terminology**

**10-091-170**

**2 Credits**

*Course Typically offered in Fall*

Teaches acceptable veterinary medical terminology for common clinically recognizable diseases, operations, systems and procedures, as well as common medical signs, abbreviations and colloquial vocabulary.

*In person registration is strongly encouraged for Veterinary Technician courses.*

*Prereq: Full-Time Vet Tech plan; Coreq: Animal Care & Mgmt 1 - 10091171 AND Princ of Animal Bio 10806105 OR Gen Bio 10806114 OR Prereq: Part-Time Vet Tech plan; Coreq: Princ of Animal Bio 10806105 or Gen Bio 10806114 AND Vet Office Proc 1 - 10091131*

## **Aviation**

### **Aeronautics**

#### **Private Pilot-Ground**

**10-402-101**

**3 Credits**

*Course Typically offered in Fall/Spring*

Covers ground training of aerodynamics and aircraft performance, aircraft systems, aviation human factors, air traffic control and airspace, aviation law and regulation, aviation weather, aviation safety, airworthiness, flight maneuvers, weight and balance, navigation, and emergency operations to the Private Pilot certificate level.

*Students must be at least 17 years of age. An additional \$250-300 in software costs is associated with the class- Requires the purchase of Sporty's Private Pilot learn to fly course. <https://www.sportys.com/learn-to-fly-course-private-pilot-test-prep-online-app-and-tv.html>*

#### **Aviation Weather**

**10-402-102**

**3 Credits**

*Course Typically offered in Fall/Spring*

Covers ground training of aviation weather, aviation human factors, aviation safety, and emergency operations to the Commercial Pilot certificate level.

*Requires the purchase of Aviation Weather Textbook by Jeppesen ISBN: 9780884875949*

*<https://shop.jeppesen.com/All-Products/Training/Training-Type/E-Books/Aviation-Weather-E-book/p/10333576>*

### **Aviation Maintenance**

#### **Aircraft Fundamentals**

**10-486-100**

**2 Credits**

*Course Typically offered in Fall/Spring*

Explore the principles of flight and the basic design of aircraft. Introduces students to the nomenclature, history, and configuration of aircraft. Students will also learn about the theory of flight, aerodynamics, and basic meteorological concepts.

#### **Aviation Records, Regulations, & Publications**

**10-486-101**

**3 Credits**



<i>Course Typically offered in Fall/Spring</i>	
Introduces the student to the Code of Federal Regulations that govern U.S. civil aviation. Generate various aircraft maintenance records that document: repairs, alterations, weight and balance changes, life-limited parts, and inspection status. Students will also study how various manufactures' documents are used in the maintenance of aircraft.	
<b>Aircraft Materials &amp; Hardware</b> <b>10-486-102</b>	<b>2 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Introduces the materials, hardware, and processes used to maintain aircraft. Students practice the proper use of hand and power tools. Students will also demonstrate the proper installation, torquing, and securing of fasteners. Students will fabricate rigid and flexible hoses.	
<b>Aircraft Corrosion Control</b> <b>10-486-103</b>	<b>2 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Apply the principles of corrosion control in the preservation of aircraft. Introduces the student to the different forms, causes, removal, and prevention of corrosion. Students will have the opportunity to also identify, inspect, and apply surface finishing materials to aircraft structures.	
<b>Inspection Fundamentals</b> <b>10-486-104</b>	<b>1 Credit</b>
<i>Course Typically offered in Fall/Spring</i>	
Inspect aircraft and components to determine airworthiness. Introduces the student to visual, dimensional, and non-destructive inspection techniques. Use precision measuring equipment and perform magnetic particle, dye penetrant, eddy current, and ultrasonic tests to identify defective parts.	
<b>Ground Handling &amp; Servicing</b> <b>10-486-105</b>	<b>1 Credit</b>
<i>Course Typically offered in Fall/Spring</i>	
Prepares the student to operate in the maintenance environment by covering ramp safety, ground operations, preflight, engine runs, and aircraft servicing.	
<b>Avionics Fundamentals</b> <b>10-486-120</b>	<b>2 Credits</b>
<i>Course Typically offered in Spring</i>	
Introduces the student to the operation and use of various communication and navigation systems used by flight crews as they travel around the globe. Learn how a combination of ground, air, and satellite-based stations are used by aircraft to coordinate traffic and avoid mishaps as they deal with changing weather conditions. Students will also use test equipment to evaluate proper systems operation.	
<i>Coreq: Aircraft Technical Drawings 10486127</i>	
<b>Airframe Instrumentation</b> <b>10-486-121</b>	<b>2 Credits</b>
<i>Course Typically offered in Spring</i>	
Introduces the operating principles used by aircraft instruments to detect and display information about the flight environment and aircraft's performance. Prepares students to work with pressure, gyroscopic, and directional instrumentation. Electronic flight instruments, centralized aircraft monitoring, and crew alerting systems will also be explored.	
<i>Prereq: Aircraft Fundamentals 10486100</i>	

**Airframe Electrical Power****10-486-122****2 Credits***Course Typically offered in Spring*

Learn how to maintain aircraft electrical systems. Component operation, power sources, and power distribution will be studied. Students will have the opportunity to install, terminate, and repair electrical wiring. Troubleshooting, repair, and maintenance of switches, relays, circuit protective devices, and electric motors is also covered.

*Prereq: Aircraft Fundamentals 10486100***Aircraft Metallic Structures****10-486-125****2 Credits***Course Typically offered in Spring*

Apply the different techniques used to inspect, maintain, and repair metallic structures. Students will be able to practice designing, bending, forming, and installing sheet metal repairs. Installation of antennas and other avionics equipment will be covered.

*Prereq: Aircraft Materials & Hardware 10486102 AND Aircraft Corrosion Control 10486103; Coreq: Aircraft Technical Drawings 10486127***Airframe Fuel Systems****10-486-126****1 Credit***Course Typically offered in Spring*

Inspect, troubleshoot, and repair fuel systems onboard the aircraft. Students will explore different fuel types, storage, distribution, and quantity indication sub-systems used in aviation.

*Prereq: Ground Handling & Servicing 10486105; Coreq: Aircraft Technical Drawings 10486127***Aircraft Technical Drawings****10-486-127****1 Credit***Course Typically offered in Spring*

Interpret aircraft blueprints, charts, and graphs. Students will identify symbols, lines, and terminology used in aircraft applications. Students will sketch repairs and alterations made to aircraft.

*Prereq: Aircraft Fundamentals 10486100 AND Aviation Records, Regulations, & Publications 10486101 OR Aviation Regulations & Publications 10486161 AND Maintenance Forms & Records 10486166***Business Administration & Finance****Accounting****Accounting, Principles of****10-101-107****3 Credits***Course Typically offered in Fall/Spring*

Introduces basic concepts and general principles of accounting to non-accounting students. Topics include financial statements, merchandising accounting for cash, inventory, payroll, budgeting and accounting software.

**Spreadsheets, Beginning****10-101-145****1 Credit***Course Typically offered in Fall/Spring*

Covers developing, constructing and printing basic business-related worksheets and reports using spreadsheet software. Students create, modify and print various charts based on worksheet data.

## **Banking / Business Administration**

### **Business Law 1**

**10-102-103**

**3 Credits**

*Course Typically offered in Fall/Spring*

Introduces legal principles and standard business law concepts and their implications for business. It emphasizes contracts, sales, commercial paper, bailment, agency and real property, with references to the Uniform Commercial Code and recent consumer legislation.

### **Business, Introduction to**

**10-102-112**

**3 Credits**

*Course Typically offered in Fall/Spring*

Provides an overview of the variety of activities in the world of business. It focuses on the responsibilities connected with operating a business from both organizational and managerial viewpoints. It also examines the role of government in business.

### **Business Analyst Essentials**

**10-102-115**

**2 Credits**

*Course Typically offered in Fall/Spring*

Provides a foundational understanding of business analysis and the underlying competencies of a business analyst.

### **Business Law 2**

**10-102-157**

**3 Credits**

*Course Typically offered in Spring*

Discusses employment, business organizations, ethics, social media and internet law, and insurance.

*Prereq: Business Law 1 (10102103)*

### **Introduction to Banking Careers**

**10-114-101**

**3 Credits**

*Course Typically offered in Fall*

This course provides a comprehensive overview of the various types of banking jobs and the skills, knowledge, and attributes needed for success in the industry. Students will gain an understanding of the diverse career paths within banking, from customer-facing roles to back-office positions. The course will also explore the changing landscape of banking careers in response to technological advancements and evolving consumer needs.

### **Principles of Money and Banking**

**10-114-124**

**3 Credits**

*Course Typically offered in Fall*

Provides a study of money and its creation, monetary systems, the operation of the Federal Reserve System, commercial banking systems and international monetary problems. It also examines the factors that determine the value of money and the operation of the banking system in relation to price level, employment, savings and investment, and economic activity.

### **Financial Planning**

**10-114-175**

**3 Credits**

*Course Typically offered in Fall/Spring*

Approaches planning from the perspective of an individual who applies specific financial concepts and principles to setting financial goals, choosing a career, budgeting and cash flow management. Topics include credit, income taxes, asset protection, investments, retirement and estate planning.

## **Broadcast Captioning**

### **Digital Court Reporting, Introduction to 10-170-100**

**2 Credits**

*Course Typically offered in Fall*

Explores a relatively new career in the field of court reporting. Digital court reporting uses professional quality audio recording equipment to register court proceedings. A digital court reporter oversees and maintains the equipment necessary for recording court proceedings and is then responsible for subsequent transcripts.

*Coreq: For the Record Software 94-170-100*

### **Digital Audio Reporting Lab 10-170-102**

**2 Credits**

*Course Typically offered in Spring*

Introduces the student to the hardware and software used in courtrooms throughout the state of Wisconsin. Provides students with experience operating hardware and command of software.

*Prereq: Digital Court Reporting, Introduction 10-170-100*

### **Legal Transcription 10-170-103**

**3 Credits**

*Course Typically offered in Fall*

Develops skills needed to operate machine transcribers, transcribe legal documents into a physical document and use reference materials. Uses dictation material from local legal offices.

### **Legal Transcription 2 10-170-104**

**3 Credits**

*Course Typically offered in Spring*

This is an advanced legal transcription and keyboarding course. Students will prepare a variety of legal documents. In addition, this course will emphasize advanced editing skills, speed, and accuracy of written record of proceedings of courtrooms and other legal proceedings.

*Prereq: Legal Transcription 10170103 AND Digital Court Reporting, Introduction 10170100*

### **DCR Grammar & Punctuation 1 10-170-115**

**3 Credits**

*Course Typically offered in Fall*

Develops skills and understanding of parts of speech, sentence structure, and punctuation of the spoken word. Grammar and punctuation rules accommodate awkward, unclear, and incorrect English that can be commonplace within speech patterns and frequently found in legal transcripts.

### **DCR Grammar & Punctuation 2 10-170-116**

**3 Credits**

*Course Typically offered in Spring*

Develops advanced skills and understanding of parts of speech, sentence structure, and punctuation of the spoken word. Grammar and punctuation rules accommodate awkward, unclear, and incorrect English that can be commonplace within speech patterns and frequently found in legal transcripts.

*Prereq: DCR Grammar & Punctuation 1 - 10170115 AND Digital Court Reporting, Introduction 10170100*

## **Business Technology / Office Systems**

### **Microsoft Office**

**10-103-120**

**2 Credits**

*Course Typically offered in Fall/Spring*

Gain technical skills employers are seeking, through hands-on coursework, using the features in Outlook, Word, Excel, and PowerPoint.

### **MS Word Introduction**

**10-103-180**

**1 Credit**

*Course Typically offered in Fall/Spring*

Presents basic features of Microsoft Word. Learn how to create, edit, and save documents; format characters, paragraphs, pages, and documents; apply special features when formatting; and create a merged document.

### **MS Word Intermediate**

**10-103-184**

**1 Credit**

*Course Typically offered in Fall/Spring*

Presents intermediate features of Microsoft Word. Learn how to use styles and create multilevel lists and charts, use advanced table features and editing tools, build documents from reusable content, and revise documents using markup tools.

## **Entrepreneurship**

### **Entrepreneurship, Introduction to**

**10-145-104**

**3 Credits**

*Course Typically offered in Fall/Spring*

Provides students with opportunities to investigate, understand and apply the process of choosing entrepreneurship as a career path. Explores the entrepreneurial experience by focusing on an awareness of entrepreneurship, opportunity recognition, business concept development and preliminary feasibility testing. Students gain the knowledge, skills, concepts and strategies relevant for start-up and early-stage entrepreneurs. The practical hands-on approach encourages students to immerse themselves in the entrepreneurial experience.

### **Small Business Management**

**10-145-105**

**3 Credits**

*Course Typically offered in Fall*

Focuses on the knowledge and insights needed to lead and manage a small business including managing small business operations, building a team, choosing a location, risk management, product development & supply chain management, financial forecasting, and growth strategies. The course is designed for those who may eventually have their own business or who desire to upgrade their skills in their present business.

### **Building Your Business Model**

**10-145-107**

**2 Credits**

*Course Typically offered in Fall/Spring*

Evaluating and modeling potential new business ventures is the focus of this course. Students will explore and map how a business intends to make money through the four main areas of a business: customers, offer, infrastructure, and financial viability. Through a hands-on, experiential approach students gain a better understanding of how to transform a start-up into a repeatable and scalable business venture.

## **Entrepreneurial Thinking**

<b>10-145-115</b>	<b>3 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Engages participants in fundamental aspects of an entrepreneurial mindset as an essential life skill. Course draws upon concepts of entrepreneurial thought/process, and features real-world "unlikely" entrepreneurs who overcame challenges by embracing an entrepreneurial mindset. Experiential learning is obtained through identifying "problems", finding solutions, and making connections beyond the classroom.	
<b>Financial Intelligence for Entrepreneurs</b>	
<b>10-145-116</b>	<b>3 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Targets prospective and existing entrepreneurs who are not financial managers. Its objective is to help entrepreneurs understand the fundamentals of financial management and analysis that will enable them to better manage the financial resources of their business.	
<i>Prereq: Intro to Entrepreneurship 10145104</i>	
<b>Human Resources</b>	
<b>Human Resources, Intro to</b>	
<b>10-116-193</b>	<b>3 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Covers human resources planning and processes. Topics include human resource development, employee selection, performance appraisals, compensation, training, labor relations, motivation, teamwork and introduces employment related laws.	
<b>Business Ethics</b>	
<b>10-116-155</b>	<b>3 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Explores ethical considerations and sustainability issues across business areas such as human resources, accounting and marketing. Examines the differences between legal and ethical decision making.	
<b>Professional Communications</b>	
<b>Introduction to Professional Communications</b>	
<b>10-699-112</b>	<b>3 Credits</b>
<i>Course Typically offered in Spring</i>	
Provides new students with firm knowledge of the Professional Communications program. Students will explore the careers associated with this field and work on improving technical writing skills. Technical editing and proofreading will be introduced in this course.	
<i>Coreq: Written Communication (10801195) or English Composition (10801136)</i>	
<b>Video Publishing</b>	
<b>10-699-123</b>	<b>1 Credit</b>
<i>Course Typically offered in Spring</i>	
Introduces video development and publishing as used by professional communicators. This 9-week course will stress how to integrate video in documentation and websites for business purposes.	
<b>Paralegal</b>	
<b>Legal Studies &amp; Legal Ethics, Intro to</b>	

<b>10-110-100</b>	<b>4 Credits</b>
<i>Course Typically offered in Fall</i>	
Provides students with an introduction to the legal profession, court system, legal ethics, legal terminology, research, law office management concepts and procedures, and the role of paralegals.	
<b>Family Law</b>	
<b>10-110-106</b>	<b>3 Credits</b>
<i>Course Typically offered in Fall</i>	
Familiarizes the student with basic legal concepts involved in the area of family relations. Primary emphasis is in the field of divorce. Additional topics include children in need of protection and services, termination of parental rights, adoption, guardianship, and court procedures relating to family law.	
<i>Prereq: Legal Studies &amp; Legal Ethics, Intro to 10110100 OR Intro to Paralegalism &amp; Legal Ethics 10110101 AND Legal Research &amp; Writing, Intro 10110115</i>	
<b>Legal Aspects/Business Organizations</b>	
<b>10-110-107</b>	<b>3 Credits</b>
<i>Course Typically offered in Spring</i>	
Focuses on the formation, operations, and dissolution of types of business organizations, and substantive and procedural law involving business organizations.	
<i>Prereq: Legal Studies &amp; Legal Ethics, Intro to 10110100 OR Intro to Paralegalism &amp; Legal Ethics 10110101</i>	
<b>Legal Terminology, Introduction to</b>	
<b>10-110-112</b>	<b>3 Credits</b>
<i>Course Typically offered in Spring</i>	
Provides the student with the ability to spell, pronounce, and define legal terms used in a courtroom environment.	
<b>Administration of Estates</b>	
<b>10-110-114</b>	<b>3 Credits</b>
<i>Course Typically offered in Fall</i>	
An in-depth course dealing with wills, trusts, estates, and probate. Identifies techniques for fact gathering, income and death tax principles, use of trusts, probate, and administration of terms of wills.	
<i>Prereq: Legal Studies &amp; Legal Ethics, Intro to 10110100 OR Intro to Paralegalism &amp; Legal Ethics 10110101</i>	
<b>Legal Research &amp; Writing, Introduction</b>	
<b>10-110-115</b>	<b>3 Credits</b>
<i>Course Typically offered in Fall</i>	
Focuses on the application of legal research and writing techniques using traditional and computer-assisted resources and federal and state materials. Incorporates writing skills that cover various internal and external legal documents.	
<i>Coreq: Legal Studies &amp; Legal Ethics, Intro to 10110100 OR Intro to Paralegalism &amp; Legal Ethics 10110101</i>	
<b>Legal Research &amp; Writing, Advanced</b>	
<b>10-110-117</b>	<b>3 Credits</b>
<i>Course Typically offered in Fall</i>	
Builds upon existing knowledge of legal research and writing techniques using traditional and computer-assisted resources and federal and state materials. Incorporates advanced writing skills that cover various internal and external legal documents.	
<i>Prereq: Legal Research &amp; Writing, Intro 10110115</i>	



<b>Law Office Management and Technology</b>	
<b>10-110-118</b>	<b>3 Credits</b>
<i>Course Typically offered in Spring</i>	
Provides students with the fundamentals of law office organization and technology. Topics include organization and utilization of support personnel, time and billing systems, budgets, case and file management, calendaring and docket control, and accounting systems in a law office. Students will demonstrate knowledge of these topics from an ethical perspective.	
<i>Prereq: Legal Studies &amp; Legal Ethics, Intro 10110100 OR Intro to Paralegalism &amp; Legal Ethics 10110101</i>	
<b>Civil Litigation Procedures</b>	
<b>10-110-151</b>	<b>3 Credits</b>
<i>Course Typically offered in Spring</i>	
Provides students with outlines of the stages of civil litigation including initial client contact, investigation, pleadings, and motions. Covers the civil litigation procedure during discovery, trial, and appeal.	
<i>Coreq: Legal Studies &amp; Legal Ethics, Intro to 10110100 OR Intro to Paralegalism &amp; Legal Ethics 10110101</i>	
<b>Employment Law for Legal Professionals</b>	
<b>10-110-160</b>	<b>3 Credits</b>
<i>Course Typically offered in Spring</i>	
Provides students with an understanding of the analysis of federal and state laws governing employment relationships, job discrimination, sexual harassment, workplace privacy, labor standards, and human resource management.	
<i>Prereq: Legal Studies &amp; Legal Ethics, Intro to 10110100 OR Intro to Paralegalism &amp; Legal Ethics 10110101</i>	
<b>Criminal Procedures for Legal Professionals</b>	
<b>10-110-168</b>	<b>3 Credits</b>
<i>Course Typically offered in Spring</i>	
Focus is on substantive and procedural criminal law, the role of legal professionals in both the prosecution and defense of criminal actions, with emphasis on investigations and preparation of legal documents.	
<i>Prereq: Legal Studies &amp; Legal Ethics, Intro to 10110100 OR Intro to Paralegalism &amp; Legal Ethics 10110101</i>	
<b>Supervision &amp; Leadership Devel</b>	
<b>Problem Solving</b>	
<b>10-196-131</b>	<b>2 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Presents basic problem-solving techniques. Emphasizes the importance of identifying the real problem, identifying the causes, looking at alternative solutions, arriving at a solution and following up to ensure implementation.	
<b>Project Management, Intro to</b>	
<b>10-196-188</b>	<b>3 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Focuses on how to apply the skills and tools necessary to design, implement and evaluate formal projects. Each learner will write a project proposal, work with project teams, sequence project tasks, develop project budgets, identify project resources, implement the project, chart project progress, deal with variations, evaluate the project, and use various technology in these processes.	
<b>Construction</b>	
<b>Const Trades Gen - Pipe Trades</b>	

**Introduction to Pipe Trades Careers****31-476-301****3 Credits***Course Typically offered in Fall/Spring*

Introduces the plumbing, steamfitting, sprinkler fitting, and HVAC piping trades. Explores trade terminology and component identification necessary to meet the basic skills in the pipe trade industry.

**Construction Trades Safety****10-449-180****2 Credits***Course Typically offered in Fall/Spring*

Teaches skills to recognize, evaluate and control construction site hazards. Includes personal protective equipment and how to perform construction tasks safely. Describes hazards of work and basic approaches to working safely. Introduces OSHA-mandated Lockout/Tagout procedures and prepares learners for additional detailed safety training. Upon successful completion, the student will receive a Department of Labor OSHA Construction Safety and Health 30-hour completion card.

**Pipe Joining Processes****31-476-305****3 Credits***Course Typically offered in Fall/Spring*

Introduces students to the tools and skills required to join plastic and copper piping systems using sweating, brazing, solvent welding. Also covers various PEX joining methods.

**Culinary & Hospitality****Culinary Arts****Baking Essentials****10-314-110****2 Credits***Course Typically offered in Fall/Spring*

Applies the basic principles involved in the purchase, preparation and use of food stuffs as it pertains to bakery and pastry. The proper identification and use of equipment, correct measuring techniques, and baker percentages are covered. Students will calculate math challenges using typical bakery scenarios.

*Coreq: Science of Baking 10316170***Food Production, Introduction to****10-316-101****3 Credits***Course Typically offered in Spring*

Introduces quantity food production to the non-culinary student. Topics include preparation of a variety of menu items, equipment use, cooking methods and terminologies, recipe conversion and the essentials of timing and coordination of service.

*Coreq: Sanitation for Food Service Operations 10316118***Culinary Fundamentals****10-316-110****3 Credits***Course Typically offered in Fall/Spring*

Applies the basic principles involved in the purchase, preparation and use of food stuffs. The proper identification and use of equipment and correct measuring techniques are covered. This course provides the theory basis for production courses.

*Prereq: HS GPA 2.75+ OR ACPL Read 54+/Sent 83+, Next Gen Read 250+/Sent 237+, ACT Read 18+/Engl 15+ OR Read Prep 10838105/Sent Prep 10831103*

**Sanitation for Food Service Operations****10-316-118****1 Credit***Course Typically offered in Fall/Spring*

Focuses on the development of skills to follow sanitation and hygiene provisions in state codes. The Servsafe certification test is included.

**Nutrition for Culinary Arts****10-316-119****1 Credit***Course Typically offered in Fall/Spring*

Focuses on the six major nutrients (carbohydrates, proteins, fats, minerals, vitamins and water) and how each is used by the body. The planning of well-balanced diets and the nutritional analysis of diets are emphasized.

**Culinary Applications****10-316-120****2 Credits***Course Typically offered in Fall/Spring*

Applies the basic principles of culinary calculations involved in the purchase, preparation and use of goods related to the hospitality field.

*Prereq: HS GPA 2.75+ OR ACPL Read 54+/Sent 83+/Arith 46+, Next Gen Read 250+/Sent 237+/Arith 250+, ACT Read 18+/Engl 15+/Math 16+, OR Read Prep 10838105/Sent Prep 10831103/Arith Prep 10834109 OR Not pursuing degree*

**Culinary Foundations****10-316-125****1 Credit***Course Typically offered in Fall/Spring*

Prepares the entry-level culinary student for future success by introducing knife skills development, cooking principles and methods, and organizational skills and Mise en place (French phrase meaning "put in place" as in set up). Emphasis is placed on hands-on learning and skills development.

*Coreqs: Sanitation for Food Service Operations 10316118; Culinary & Food Service Production Uniform 94316006 OR Accelerated Culinary & Kitchen Steward Uniform 94316007*

**Meat Identification****10-316-133****1 Credit***Course Typically offered in Fall/Spring*

Focuses on the federal program for meat and fish inspection. Meat grading classification (commercial and institutional) and purchasing are discussed. This course also provides practical lessons in meat preparation.

*Coreq: Culinary & Food Service Production Uniform 94316006 OR Accelerated Culinary & Kitchen Steward Uniform 94316007*

**Catering and Special Event Planning****10-316-142****2 Credits***Course Typically offered in Fall*

Introduces how to develop, plan and execute catering and special events to the exacting details of the customer. Emphasis is on the importance of details in planning to achieve the best possible results. Activities will encourage both creative thinking and functionality to ensure customer satisfaction and business profitability.

*Prereq: HS GPA 2.75+ OR ACPL Read 54+/Sent 83+, Next Gen Read 250+/Sent 237+, ACT Read 18+/Engl 15+ OR Read Prep 10838105/Sent Prep 10831103 OR not pursuing degree*

**Science of Baking****10-316-170****2 Credits**

<i>Course Typically offered in Fall/Spring</i>	
Focuses on identifying, applying and interpreting the scientific concepts of the baking process. Topics include recipe conversion, scaling, measurement, baking terminology, equipment identification and use, timing, heat transfer, ingredient functionality, presentation and display. This course combines lab and lecture activities.	
<i>Coreq: Culinary/Food Service Uniform 94316006</i>	
<b>1stAid/CPR-Principle &amp; Practice-Culinary Arts</b>	
<b>10-531-101A</b>	<b>1 Credit</b>
<i>Course Typically offered in Fall/Spring</i>	
Presents and evaluates basic first aid skills necessary to care for the ill and injured until medical help arrives. Covers the use of an Automated External Defibrillator (AED), as well as CPR for all ages and the recognition and care of cardiac emergencies. Students receive an AHA Heartsaver CPR card and a FVTC First Aid certificate upon course completion.	
<b>Food Service Production / Hotel and Restaurant Management</b>	
<b>Hospitality Sales and Promotion</b>	
<b>10-109-125</b>	<b>2 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Covers sales and promotion in the hospitality industry. The emphasis is on promoting hospitality entities to attract new customers, selling principles and merchandising techniques for products and services, and innovative ways to maintain the interest of existing customers.	
<i>Prereq: HS GPA 2.75+ OR ACPL Read 54+/Sent 83+, Next Gen Read 250+/Sent 237+, ACT Read 18+/Engl 15+ OR Read Prep 10838105/Sent Prep 10831103</i>	
<b>Customer Service Management</b>	
<b>10-109-126</b>	<b>3 Credits</b>
<i>Course Typically offered in Spring</i>	
Helps students to understand, apply and manage the principles of good customer service in a variety of hospitality environments. Particular attention will be given to the various roles and responsibilities of hospitality employees as they relate to customer service.	
<i>Prereq: HS GPA 2.75+ OR ACPL Read 54+/Sent 83+, Next Gen Read 250+/Sent 237+, ACT Read 18+/Engl 15+ OR Read Prep 10838105/Sent Prep 10831103</i>	
<b>Introduction to Hospitality</b>	
<b>10-109-152</b>	<b>3 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Introduces various aspects of the hospitality industry including lodging, food service, tourism and customer service. Students evaluate potential internship and career opportunities as they explore topics including professionalism, ethics & etiquette.	
<b>Engineering &amp; Electronic Related Technologies</b>	
<b>Automated Manufacturing</b>	
<b>Concepts of Programming for Technicians</b>	
<b>10-628-101</b>	<b>1 Credit</b>
<i>Course Typically offered in Fall/Spring</i>	
Introduces students to programming fundamentals necessary in automation related careers. Students will discuss proper programming structures including flow chart and pseudocode programming. Students will create and troubleshoot programs.	

**PLC 1****10-628-151****1 Credit***Course Typically offered in Fall/Spring*

Introduces Programmable Logic Controllers (PLC)s and RSLogix 500 Programming Software. The PLC hardware will consist of Allen Bradley products. Students use the RSLogix 500 programming software to create logical solutions for real world applications. The applications will require students to create, download, and debug programs in RSLogix 500.

*Coreq: Ladder Logic and Control Devices (10660170) OR Digital 1 (10605130)*

**AutoCAD Fundamentals****10-628-187****1 Credit***Course Typically offered in Fall/Spring*

Teaches students to draw, edit, dimension, and plot drawings with the AutoCAD software.

**Blueprint Reading & AutoCAD****10-628-188****1 Credit***Course Typically offered in Fall/Spring*

Introduces students to reading both electrical schematics and mechanical prints, while utilizing the AutoCAD software.

*Coreq: AutoCAD Fundamentals (10628187)*

**Electro-Mechanical Technology****Pneumatics 1****10-620-111****1 Credit***Course Typically offered in Fall/Spring*

Provides an introduction to fundamental principles and laws of fluid power, with a focus on pneumatics. Laboratory activities are performed to verify the theory.

*Coreq: College Technical Math 1 - 10804115 OR College Algebra and Trigonometry with Apps 10804197 OR College Technical Math 1A 10804113 OR Industrial Maintenance Math 31804308*

**Pneumatics 2****10-620-112****1 Credit***Course Typically offered in Fall/Spring*

Introduces advanced pneumatic and electropneumatic systems. Students examine how pneumatic components operate and how they interact in industrial systems. Laboratory activities are performed to verify the theory.

*Coreq: Pneumatics 1 - 10620111; Ladder Logic and Control Devices 10660170 OR 10609170*

**Elements of Machines 1****10-620-164****1 Credit***Course Typically offered in Fall/Spring*

Emphasizes the mechanical elements of industrial machines. Principles of leveling motors, fasteners, bearings, and couplings are covered. Terminology, selection, and proper installation and maintenance are stressed.

**Elements of Machines 2****10-620-165****1 Credit***Course Typically offered in Fall/Spring*

Emphasizes the mechanical elements of industrial machines. Principles of power transmission, belt drives, and chain drives are covered. Terminology, selection, and proper installation and maintenance are stressed.

*Coreq: Elements of Machines 1 (10620164)*

### **Electronic Shop Practices**

**10-620-169**

**1 Credit**

*Course Typically offered in Fall/Spring*

Introduces various aspects of the electronic shop such as basic soldering principles, surface mount technology, troubleshooting, repairing and circuit protection devices and performing panel-wiring exercises. Customer relations is also discussed.

### **Electronic-Related Technologies / Electronics**

#### **DC Circuits 1**

**10-660-110**

**1 Credit**

*Course Typically offered in Fall/Spring*

Introduces electrical safety and program procedures. The course covers Ohm's Law, power law, series circuits, and voltmeter, ammeter and ohmmeter applications. Number powers, electronic notations, circuit component recognition and diagrams, resistor power ratings, color code, Kirchhoff's voltage law and atomic structure are also included.

*Coreq: College Technical Math 1 (10804115) OR College Technical Math 1A (10804113) OR Industrial Maintenance Math (31804308) OR College Algebra and Trigonometry with Applications (10804197) OR Intermediate Algebra with Applications (10804118)*

#### **DC Circuits 2**

**10-660-111**

**1 Credit**

*Course Typically offered in Fall/Spring*

Covers basic parallel and series-parallel circuits and their properties. Examines the theory, application and design of series-parallel circuits, such as loaded and unloaded voltage dividers and the Wheatstone bridge. Laboratory activities are performed to verify the theory.

*Coreq: DC Circuits 1 (10660110)*

#### **DC Circuits 3**

**10-660-112**

**1 Credit**

*Course Typically offered in Fall/Spring*

Covers capacitors and inductors including time constants and instantaneous voltage and current values of RC and RL circuits. Applications and various types of capacitors and inductors are discussed. Magnetism, electromagnetism, and devices, such as relays and solenoids, are also presented. Laboratory activities are performed to verify the theory.

*Coreq: DC Circuits 2 (10660111)*

#### **AC Circuits 1**

**10-660-114**

**1 Credit**

*Course Typically offered in Fall/Spring*

Covers AC waveforms and different voltage values including Peak, RMS, Average and Peak to Peak. The operation of transformers is also included. Laboratory activities using the oscilloscope are performed to verify the theory.

*Coreq: DC Circuits 3 (10660112) OR enrolled in the Manufacturing Engineering Tech program (106233) and Coreq: DC Circuits 2 (10660111)*

### **Construction Techniques**

**10-660-163**

**1 Credit**

Introduces the use of common hand tools used by technicians. The safe use and application of hand and power tools is practiced through construction projects. Quality workmanship and craftsmanship are emphasized.

### **Ladder Logic & Control Devices**

**10-660-170**

**1 Credit**

*Course Typically offered in Fall/Spring*

Introduces hardwired components found in industrial applications used to control simple circuits. Students will learn about switches, relays, contactors, timers, and indicator lamps. Students will use their knowledge of these devices to wire various circuits. Students will use ladder logic diagrams to interconnect and label devices to make complete circuits.

*Coreq: DC Circuits 1 (10660110)*

### **Technical Software Essentials**

**10-660-181**

**1 Credit**

*Course Typically offered in Fall/Spring*

Introduces students to the Microsoft Office family of products. Students will create and edit Word documents, Excel spreadsheets, and Access databases.

### **Computer Systems & Networks 1**

**10-660-184**

**1 Credit**

*Course Typically offered in Fall/Spring*

Focuses on computer terms, computer hardware, computer functions, security and operating systems. Basic networking concepts are also introduced.

## **Mechanical Design Technology**

### **CATIA V5 - Basic**

**10-606-102**

**2 Credits**

*Course Typically offered in Fall/Spring*

Introduces methods for creating three-dimensional models using CATIA V5 software. Topics include product structure, sketcher, solid modeling, drafting, assembly, surface modeling and sheet metal design. Basic computer skills are required.

### **CATIA V5 - Advanced**

**10-606-107**

**2 Credits**

*Course Typically offered in Fall/Spring*

Covers the advanced features of three-dimensional modeling, analysis and simulation. This course was created for designers with a CATIA V5 background. It focuses on solid, surface, sheet metal, mold tooling, systems design, stress analysis and kinematics.

*Prereq: CATIA V5 - Basic (10606102)*

### **Advanced Autodesk Inventor**

**10-606-140**

**2 Credits**

*Course Typically offered Varies*

A continuation of the Introduction to Inventor course. Surface modeling, sheet metal, creating part libraries, weldments and managing large assemblies are the major topics to be covered. The course assumes at least entry-level familiarity with Autodesk Inventor.

### **Introduction to SolidWorks**



<b>10-606-141</b>	<b>2 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Will introduce the student to the basics of the SolidWorks software. Close attention will be paid to properly navigating the interface. Sketching, dimensional and geometric constraints, part modeling, drawing creation, and assembly modeling will all be examined.	
<b>Mechanical Technology</b>	
<b>Intro to Product Design &amp; Rapid Prototyping</b>	
<b>10-606-124</b>	<b>2 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Introduces students to additional solid modeling software, the design process, and rapid prototyping of models. Previous solid modeling experience required.	
<b>Introduction to Autodesk Inventor</b>	
<b>10-606-139</b>	<b>2 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Will introduce the student to the basics of Autodesk's Inventor software. Close attention will be paid to properly navigating the interface. Sketching, dimensional and geometric constraints, part modeling, drawing creation, and assembly modeling will all be examined.	
<b>Advanced SolidWorks</b>	
<b>10-606-142</b>	<b>2 Credits</b>
<i>Course Typically offered Varies</i>	
Is a continuation of the Introduction to Solidworks course. Template file customization, advanced reference plane creation, 3D Sketching, Sweeps and Lofts, Threads, Multibody Parts, Flex Bending, Surface Modeling, Advanced Assembly Models and Exploded Views, Advanced Drawing Creation, Sheet Metal, Weldments, and Mold Design are the major topics to be covered.	
<b>Health Science</b>	
<b>Emergency Medical Services</b>	
<b>First Aid/CPR, Principles and Practices</b>	
<b>10-531-101</b>	<b>1 Credit</b>
<i>Course Typically offered Varies</i>	
Presents and evaluates basic first aid skills necessary to care for the ill and injured until medical help arrives. Covers the use of an Automated External Defibrillator (AED), as well as CPR for all ages and the recognition and care of cardiac emergencies. Students receive an AHA Healthcare CPR card and a FVTC First Aid certificate upon course completion.	
<b>Emergency Medical Responder with Healthcare Provider CPR</b>	
<b>10-531-105</b>	<b>2 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Teaches and evaluates the knowledge/skills needed to respond to medical or trauma situations. It includes AED, Combitube, EpiPen, Spinal Immobilization, CPR and skills needed to assist the ambulance crew. This course meets Wisconsin and National licensure guidelines. Students receive an AHA Healthcare CPR card and FVTC Emergency Medical Responder certificate.	
<b>Emergency Medical Technician - Basic</b>	

<b>10-531-169</b>	<b>5 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Presents and evaluates the knowledge and skills needed by ambulance personnel to respond to and treat cardiac arrest and critical medical and trauma situations. Extrication and ambulance operations are also covered. The course does include CPR certification.	
<i>Coreq: Active in EMT-Basic plan, EMT-Basic Uniforms 94531002, AND EMS EVOC Training 94531003; OR Prereq: Active in Fire Protection plan, Basic Anatomy 10806189, AND Coreq: EMS EVOC Training 94531003</i>	
<b>General Health</b>	
<b>Medical Terminology</b>	
<b>10-501-101</b>	<b>3 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
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.	
<b>Culture of Healthcare</b>	
<b>10-501-104</b>	<b>2 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Introduces the culture of healthcare for students interested in working in various healthcare settings. Learners examine professionalism, interpersonal and written communication skills, problem-solving skills and patient privacy and confidentiality issues as they relate to healthcare.	
<b>Digital Literacy for Healthcare</b>	
<b>10-501-107</b>	<b>2 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Focuses on the use of technology in healthcare. Learners use common business software applications, including word processing, presentation, spreadsheet, and databases. Communication methods using technology are addressed. Learners gain experience with using the electronic health record (E.H.R.). Healthcare E.H.R. security issues, social media use, and digital healthcare resources are examined.	
<b>Medical Law, Ethics &amp; Profess</b>	
<b>30-509-309</b>	<b>2 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
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.	
<b>People Skills for Health Professionals</b>	
<b>10-501-151</b>	<b>1 Credit</b>
<i>Course Typically offered in Fall/Spring</i>	
Explores professional/social interaction skills required for healthcare workers. Investigates values, ethical dilemmas, helping roles, assertiveness skills, communication with special populations, death/dying issues and stress management interventions. Participate in reflective self-study group discussions and service learning experiences. Develop a professional portfolio for future employment use.	
<b>Body Structure and Function</b>	
<b>10-501-153</b>	<b>2 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	

Introduces the basic normal anatomy and physiology of the human body essential for nursing practice. Medical terminology is introduced and plays a significant role in the course. Medical Terminology (10-501-101) is recommended but not required.	
<b>Human Body in Health &amp; Disease</b> <b>31-509-302</b>	<b>3 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Students learn to recognize human body structure and function in health and disease states. Students explore the causes, signs, and symptoms of diseases of the major body systems as well as the diagnostic procedures, usual treatment, prognosis, and prevention of diseases commonly diagnosed and treated in the medical office setting.	
<i>Coreq: Medical Terminology 10-501-101</i>	
<b>Gerontology</b>	
<b>Health and Aging</b> <b>10-544-160</b>	<b>1 Credit</b>
<i>Course Typically offered in Spring</i>	
Provides an overview of wellness, exercise, sexuality, spirituality and nutrition as they relate to health and aging.	
<b>Physical Aspects of Aging</b> <b>10-544-161</b>	<b>1 Credit</b>
<i>Course Typically offered in Fall</i>	
Focuses on understanding the physical aspects of the aging process that are associated with elderly populations. Topics include hearing loss, visual impairments, mobility issues and specific diseases such as Parkinson's disease, stroke, arthritis and diabetes.	
<b>Psychosocial Issues and Aging</b> <b>10-544-162</b>	<b>2 Credits</b>
<i>Course Typically offered in Spring</i>	
Examines the factors and relationships that affect the older adult. Participants explore a variety of topics such as Alzheimer's, depression and dealing with losses. It also covers elder abuse and drug and alcohol concerns.	
<b>Public Policy and Aging</b> <b>10-544-163</b>	<b>1 Credit</b>
<i>Course Typically offered in Fall</i>	
Introduces such concepts as elder law, advanced directives and funding sources including Medicare and Social Security. Students review federal, state and professional rights and responsibilities associated with working with an elderly population.	
<b>Community Resources for the Elderly</b> <b>10-544-164</b>	<b>1 Credit</b>
<i>Course Typically offered in Spring</i>	
Explores available community options and partnerships that serve the aging population. Access to transportation, housing, work and leisure activities is included.	
<b>Prevention/Safety Concerns for the Elderly</b> <b>10-544-165</b>	<b>1 Credit</b>
<i>Course Typically offered in Fall</i>	

Introduces environmental concerns such as protection from fire, prevention of falls, and medical concerns such as medication management and care provider issues. This is designed for people who are addressing the safety concerns of older adults.

## Laboratory Assistant

### Basic Lab Skills

**10-513-110**

**1 Credit**

*Course Typically offered in Fall/Spring*

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.

*Coreq: Active in Medical Lab Tech plan, QA Lab Math 10513113, Phlebotomy 10513111, AND Gen A&P 10806177; OR active in Phlebotomy/Med Lab Asst CERT*

### Phlebotomy

**10-513-111**

**2 Credits**

*Course Typically offered in Fall/Spring*

This course provides opportunities for learners to perform routine venipuncture, routine capillary puncture and special collection procedures.

*Coreq: Active in Medical Lab Tech plan, Basic Lab Skills 10513110, AND QA Lab Math 10513113; OR Coreq: Active in Phlebotomy/Med Lab Asst CERT, AND Basic Lab Skills 10513110*

### QA Lab Math

**10-513-113**

**1 Credit**

*Course Typically offered in Fall/Spring*

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.

*Coreq: Active in Medical Lab Tech plan OR Medical Lab Asst CERT*

### Advanced Lab Skills

**10-513-117**

**2 Credits**

*Course Typically offered in Fall/Spring*

Explores principles and hands on procedures performed in the clinical laboratory. You will perform quality control and utilize basic laboratory equipment to perform patient laboratory testing.

*Prereq: Basic Lab Skills 10513110; Coreq: Medical Terminology 10501101, Culture of Healthcare 10501104, Body Structure and Function 10501153, QA Lab Math 10513113, Phlebotomy 10513111*

### Medical Laboratory Assistant Clinical

**10-513-118**

**3 Credits**

*Course Typically offered in Fall/Spring*

Learn to prepare blood specimen collection and specimen processing in a clinical setting.

*Coreq: Advanced Lab Skills 10513117*

## Nursing Assistant

### Nursing Assistant

**30-543-300**

**3 Credits**

*Course Typically offered in Fall/Spring*

Prepares learners for entry-level employment as assistants to a licensed nurse. During the 120 hour, Wisconsin department of health services approved program, students will be required to demonstrate the following skills: communication, basic nursing assistant and personal care skills, attention to client's rights; and care of clients with dementias. Upon successful completion of the program, the student is eligible to take the Wisconsin Nursing Assistant competency evaluation for employment in nursing homes, hospitals, home health agencies, hospices, CBRF's, assisted living centers and homes for the developmentally disabled.

*Prereq: Student must be active in Nursing Assistant program and meet all enrollment requirements: completed Nursing Assistant Functional Ability Criteria form and Criminal Caregiver Background Check.*

## **Human Services**

### **Substance Use Disorder Counseling**

#### **Intro to the SUDC Profession**

**10-550-200**

**2 Credits**

*Course Typically offered in Fall/Spring*

Provides an overall picture of substance abuse services. Topics include the continuum of care, modalities of treatment, referral and assessment services, and federal, state and local agencies. A historical perspective on alcohol and drug use and prevention is also provided.

#### **Understanding Substance Use**

**10-550-201**

**3 Credits**

*Course Typically offered in Fall/Spring*

Explore the bio-psych social dynamics of substance use. Examine treatment approaches, models, and screening criteria. Examine substances of abuse, history of SUDs, and their impact on the individual and society.

### **Early Childhood Education**

#### **ECE: Early Language & Literacy**

**10-307-108**

**3 Credits**

*Course Typically offered in Fall*

This 3-credit course explores strategies to encourage the development of early language and literacy knowledge and skill building in children birth to 8 years of age.

#### **ECE: Social Studies, Art, & Music**

**10-307-110**

**3 Credits**

*Course Typically offered in Spring*

This 3-credit course will focus on beginning level curriculum development in the specific integrated content areas of social studies, art, music, & movement (SSAMM) for children from birth to 8 years of age.

#### **ECE: Foundations of Early Childhood**

**10-307-148**

**3 Credits**

*Course Typically offered in Fall/Spring*

This 3-credit course introduces you to the early childhood profession through a historical overview of the field. The course will explore program trends, quality indicators, and developmentally appropriate practices for children birth to 8 years of age.

#### **ECE: Infant & Toddler Development**

**10-307-151**

**3 Credits**

*Course Typically offered in Fall/Spring*

This 3-credit course explores infant and toddler development as it applies to an early childhood education setting. This course focuses on children's development from conception through thirty-six months (3 years). This course includes training for Wisconsin Breastfeeding Friendly Child Care certification.

### **ECE: Hlth Safety & Nutrition**

**10-307-167**

**3 Credits**

*Course Typically offered in Fall/Spring*

This 3-credit course examines the topics of health, safety, and nutrition within the context of the early childhood educational setting for children from birth through 8 years of age. This course includes training for Abusive Head Trauma, SIDS, and Mandated Reporter certifications.

### **ECE: Child Development**

**10-307-179**

**3 Credits**

*Course Typically offered in Fall/Spring*

This 3-credit course examines child development within the context of the early childhood education setting. This course focuses on children ages 3-8 years of age.

### **ECE: Children w Diff Abilities**

**10-307-187**

**3 Credits**

*Course Typically offered in Fall/Spring*

This 3-credit course focuses on the child with differing abilities in an inclusive early childhood education setting while examining strategies for cultivating partnerships with families and community supports for children from birth to 8 years of age.

## **Foundations of Teacher Education**

### **Techniques in Reading**

**10-522-102**

**3 Credits**

*Course Typically offered in Fall*

Students learn techniques to support reading development for all learners. Students learn techniques to promote phonological awareness, phonemic awareness, and phonics. Students also learn strategies to promote word analysis, vocabulary, comprehension and reading fluency skills. 5 Wk Hybrid: 1 night/wk 4:30-9:30 PM **AND** 1 Sat./month 8AM-4PM

*Coreq: Introduction to Educational Practices 10522103*

### **Introduction to Educational Practices**

**10-522-103**

**3 Credits**

*Course Typically offered in Fall*

Students analyze preK-12 education in the United States, determine roles and responsibilities of school personnel, and explore current trends and best practices. Students identify how students learn and the foundations of lesson planning. Students analyze assessment strategies, classroom management, and techniques for supporting learners. 5 Wk Hybrid: 1night/wk 4:30-9:30 PM **AND** 1 Sat./month 8AM-4PM

*Coreq: Technology in Education 10522104*

### **Technology in Education**

**10-522-104**

**3 Credits**

*Course Typically offered in Fall*

Students develop the knowledge and skills to use trending classroom technologies and gain experience creating and using web tools including portfolios. Students create presentations for educational environments and identify ISTE Standards. 5 Wk Hybrid: 1night/wk 4:30-9:30 PM **AND** 1 Sat./month 8AM-4PM

## Information Technology

### Information Technology

#### Exploring IT Foundations

**10-107-102**

**2 Credits**

*Course Typically offered in Fall/Spring*

Pursue this introductory course where students explore information technology-based tasks from a variety of IT roles. Students will be introduced to various technologies used on in industry.

#### Microcomputer Applications

**10-107-150**

**2 Credits**

*Course Typically offered in Fall/Spring*

Designed for students with little or no hands-on computer experience. Presents the basic functions of the Windows operating system and how to use the word processing, spreadsheet and presentation functions of Microsoft Office software. Students will integrate various functions of several Microsoft packages.

#### Systems Analysis

**10-107-158**

**3 Credits**

*Course Typically offered in Fall/Spring*

Introduces the principles and techniques of modern system analysis and design. It explores the fundamentals of traditional systems and methodologies, data flow diagrams and case tools. It also tracks the systems' development life cycle and explains the various stages.

#### Scripting with Python

**10-150-111**

**3 Credits**

*Course Typically offered in Fall/Spring*

Provides a gentle introduction to scripting with the Python language for students without prior scripting or programming experience. The course will cover basics of the language, including data types, flow control, regular expressions, input/output and object oriented programming. Students will learn how to use Python to create scripts that manipulate data, automate system tasks, and automate information security.

*Coreq: Linux Essentials 10150155 OR instructor approval*

#### Network Infrastructure 1

**10-150-116**

**3 Credits**

*Course Typically offered in Fall/Spring*

Covers networking topics including the OSI model, local area and wide area networking. Also focuses on assigning network addresses and configuring network devices including Cisco routers and switches. Includes considerable hands-on learning activities and helps prepare learner for the Cisco CCNA exam.

*Coreq: Math & Logic 10804133 AND Network Essentials 10150162*

#### Ethical Hacking

**10-150-144**

**3 Credits**

*Course Typically offered in Fall/Spring*

Introduces the techniques hackers use to discover vulnerabilities. Students will learn ways to tighten the network security to protect the exposed data from the discovered vulnerabilities. Focus is on penetration-testing tools and techniques that security testers and ethical hackers use to protect computer networks.



<b>Linux</b>	
<b>10-150-147</b>	<b>2 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Covers introductory Linux topics including operating system basics, system installation, file system management, file system administration and basic commands. Considerable hands-on learning is included.	
<i>Prereq: Linux Essentials - Just Enough Linux 10150155</i>	
<b>Linux Essentials - Just Enough Linux</b>	
<b>10-150-155</b>	<b>1 Credit</b>
<i>Course Typically offered in Fall/Spring</i>	
Covers Basic Linux topics including operating system basics, file management, graphic user interfaces and the command line interface.	
<b>Windows Server</b>	
<b>10-150-156</b>	<b>3 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Covers Microsoft Windows Server administration including server hardware and software, Active Directory, file resources, printers, disk resources, Web resources, DNS and DHCP. Monitoring and troubleshooting server resources are also examined. Extensive hands-on activities are included.	
<i>Prereq: Enterprise Client 10154110</i>	
<b>Information Assurance</b>	
<b>10-150-161</b>	<b>2 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Examines the basics of information security, including access control and organizational security policies. This course will include the process of securing user workstations, laptops and mobile devices.	
<b>Network Essentials</b>	
<b>10-150-162</b>	<b>2 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Provides an introduction to networking theory and technologies, including the basics of communication, common protocols, the OSI model, network topologies, local network media, network devices, network security and networking tools. Includes more in-depth study of the components of TCP/IP, Ethernet, and wireless networks. Involves considerable time developing troubleshooting skills.	
<b>Introduction to Web Design</b>	
<b>10-152-100</b>	<b>3 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Provides an introduction to the user experience approach to website design. Students will gain an understanding of what is involved in the research phase, including conducting interviews and evaluating systems using principles of good design. Prototypes will be created providing a design solution.	
<i>Coreq: Intro to Web Graphics 10152105</i>	
<b>HTML 5</b>	
<b>10-152-101</b>	<b>3 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Presents the foundation skills necessary to create Web pages using HyperText Markup Language (HTML). Covers design concepts, hypertext links, tables, frames and Cascading Style Sheets (CSS).	

**Web Graphics, Introduction to**  
**10-152-105**

**3 Credits**

*Course Typically offered in Fall/Spring*

Introduces the fundamental concepts necessary to generate and prepare graphics for Web pages. The course will focus on raster as well as vector images. Areas addressed will be color selection, layout, text, optimizing images, creating backgrounds, slicing, creating navigation, transparent graphics and animated graphics. Adobe software will be utilized.

**Cascading Style Sheets (CSS)**  
**10-152-106**

**3 Credits**

*Course Typically offered in Fall/Spring*

Learn about responsive CSS. The course will cover CSS structure, current properties and concepts to create responsive web layouts that will meet web accessible standards and work on multiple devices. In addition you will learn to apply CSS properties, and their values, to enhance the visual appearance of your web site.

**C# Introduction to Programming**  
**10-152-111**

**3 Credits**

*Course Typically offered in Fall/Spring*

Introduces students with little or no programming background to programming and logic principles that apply to traditional and Windows systems. Uses C# to apply the principles by developing simple Windows applications.

**Computer Programming C++**  
**10-152-114**

**3 Credits**

*Course Typically offered in Fall/Spring*

Introduces C++ programming concepts and statements including input and output of data in a console application, variables and data type considerations, if-else and switch-case programming constructs, looping constructs, creating programmer defined functions, arrays, pointers, string manipulation, data structures and sequential file processing. It also introduces Object Oriented Programming in the C++ language.

**C# Intermediate Programming**  
**10-152-116**

**3 Credits**

*Course Typically offered in Fall/Spring*

Covers C# programming concepts and statements starting with basic class/object terminology. Investigates data types, methods and behaviors, iteration, arrays, lists and collections, Windows (GUI) programming, event programming, inheritance, file IO, exception handling and Database access methods.

*Prereq: Data Access for Programmers (10152168) AND C# Introduction (10152111) OR Computer Programming C++ (10152114)*

**WordPress**  
**10-152-131**

**3 Credits**

*Course Typically offered in Fall/Spring*

Introduces the basics of WordPress. Students will learn how to create blog sites, publish posts and pages, work with themes, employ widgets, create custom menus, activate plugins, and utilize page templates. Students will work to customize WordPress themes and learn how to make WordPress more secure. The course will use HTML, CSS, and the current version of WordPress.

*Prereq: HTML 10152120 or HTML 5 - 10152101*

**Data Access for Programmers**  
**10-152-168**

**3 Credits**

<i>Course Typically offered in Fall/Spring</i>	
Provides background in fundamental database concepts, design, documentation, implementation and distribution involving the relational database model. Students will create, query and update relational databases using Structured Query Language (SQL).	
<b>Introduction to Mobile Development</b> <b>10-152-180</b>	<b>3 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Introduces students to the different stages of development for mobile applications. We will cover the different language options and the process of getting an application to be available in a world market. This class will also cover development strategies for iPhone, iPad, Android and the Windows Phone.	
<i>Prereq: C# Introduction to Programming 10152111 AND HTML 5 - 10152101</i>	
<b>Emerging Technologies and Trends</b> <b>10-154-101</b>	<b>3 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Explores the acquisition and support of various technologies and how they interact with businesses. Students will learn how organizations implement technology solutions, research potential solutions to real-world business problems, and present their findings.	
<b>IT Customer Service Skills</b> <b>10-154-102</b>	<b>2 Credits</b>
<i>Course Typically offered in Spring</i>	
Covers the interpersonal, communication and problem-solving skills required in technical support positions. Exercises provide interaction with other learners in a team. Students explore the information and technical tools needed to function effectively in a support position. Students will be expected to schedule an additional hour each week in the on-campus Student Help Desk, developing skills working with customers in a help desk setting.	
<b>Advanced Desktop Management</b> <b>10-154-105</b>	<b>2 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Provides students with the background needed to build the knowledge and skills to support end-users and computers running the Microsoft suite of productivity applications. The course is directed at the skills needed to work in a variety of environments, including corporate environments as well as support for home users via phone support, remote support and retail counter support.	
<i>Prereq: Enterprise Client 10154110</i>	
<b>IT Service Desk Concepts</b> <b>10-154-109</b>	<b>3 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Introduces how people, processes, technology, and information affect an IT Service Desk. Students are introduced to industry standard ITIL terminology and practices and develop skills working with customers in a Service Desk setting. Explains basic concepts and implementation of a training plan and how to train end-users.	
<b>Enterprise Client</b> <b>10-154-110</b>	<b>3 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Introduces students to the skills needed to support client PC Operating Systems. Through significant hands-on activities, learn how to configure, secure, utilize and troubleshoot client operating systems.	
<i>Coreq: College Success: On Course 10890100 or IT Career Exploration 10107187</i>	

**Device Repair and Maintenance****10-154-111****3 Credits***Course Typically offered in Fall/Spring*

Covers configuring, maintaining, upgrading and repairing Intel-based computers and exploring functions and interrelations between components. The course examines system configuration, component care, system improvement, troubleshooting and failure identification.

**Infrastructure Automation****10-154-114****3 Credits***Course Typically offered in Fall/Spring*

Introduces students to the fundamental skills needed to manage and automate IT Infrastructures. Students will learn the basics of scripting and command line environments using Windows PowerShell and other tools aiding system administrators in automating IT infrastructure.

*Coreq: Windows Server 10-150-156***Law Enforcement & Public Safety****Criminal Justice****Cultural Diversity In Criminal Justice****10-504-103****3 Credits***Course Typically offered in Fall/Spring*

Explore the impact of varied cultures on American policing, courts, and corrections.

**Introduction to Forensic Science****10-504-110****3 Credits***Course Typically offered in Fall/Spring*

Explores the applications of science in the field of crime scene management from the crime scene to the courtroom and beyond. Students will focus on the examination and reconstruction of various crime scenes with the emphasis on the identification, collection, documentation and preservation of physical evidence.

*Prereq: Active in Forensic Science or Criminal Justice plans, HS GPA 2.75+ OR ACPL Read 54+/Sent 83+, Next Gen Read 250+/Sent 250+, ACT Read 18+/Engl 18+ OR Read Prep 10838105/Sent Prep 10831103; Coreq: A.C.E. 94900315;*

**Basic Crime Scene Photography****10-504-131****3 Credits***Course Typically offered in Fall/Spring*

Designed to develop basic skills in preparing effective crime scene photographs and to instruct the student in the type of photographs necessary, as well as the lighting needed for good crime scene photography. This course will educate the crime scene investigator, homicide detective, sworn law enforcement officer, rape detective, arson investigator, domestic violence investigator, and other law enforcement personnel in the aspects of photography and provide the skills needed to apply this technology in the crime scene investigation field and/or related areas.

*Coreq: Intro to Forensic Science 10-504-110***Property and Evidence Management****10-504-168****3 Credits***Course Typically offered in Fall/Spring*

Focuses on the applications of all forms of property and evidence management systems that include a number of key stages from the piece of property/evidence's acquisition to its eventual disposal. Students will learn versatile time

saving tools for managing property, evidence, and equipment through warehousing and inventory control. Develop formal standards for the management, administration, handling of property/evidence and benchmark references specific to the initial property/evidence handling procedures and lifetime standards for an organization.

## **Introduction to Corrections**

**10-504-201**

**3 Credits**

*Course Typically offered in Fall/Spring*

Examines the concept of punishment and its form, functions, and enforcement throughout history, with an emphasis on the operation, structure, clientele, and issues confronting the institutions, agencies, and programs encompassing the corrections system including jails, prisons, and probation and parole.

*Coreqs: HS GPA 2.75+ OR ACPL Read 54+/Sent 83+, Next Gen Read 250+/Sent 250+, ACT Read 18+/Engl 18+ OR Read Prep 10838105/Sent Prep 10831103); ACE 94900315 for Criminal Justice, Security & Asset, and Forensic Science students*

## **Criminal Justice System**

**10-504-204**

**3 Credits**

*Course Typically offered in Fall/Spring*

Distinguish the roles of courts and law enforcement agencies; identify the purpose of law enforcement in American society; describe how professionalism and ethics relate to law enforcement; understand crime in America; explain basic aspects of criminal law; gain an understanding of sentencing of offenders as it relates to prison and jails; compare adult and juvenile justice.

*Coreq: Active in Security and Asset Protection or Criminal Justice plans, HS GPA 2.75+ OR ACPL Read 54+/Sent 83+, Next Gen Read 250+/Sent 250+, ACT Read 18+/Engl 18+ OR Read Prep 10838105/Sent Prep 10831103, A.C.E. 94900315; OR Active in CERT*

## **Manufacturing**

### **Machine Tool Technology**

#### **Manufacturing Techniques, Cold**

**32-420-314**

**1 Credit**

*Course Typically offered in Fall/Spring*

Focuses on the manufacturing processes not necessarily done in a machine shop and covers techniques performed on materials in a cold state. Topics include cold-working metals, metal stamping and forming in presses, recent techniques in metalworking, and polishing and finishing of metal surfaces.

#### **Measurement & Benchwork 1**

**32-420-331**

**3 Credits**

*Course Typically offered in Fall/Spring*

Builds a foundation for subsequent training in machining, industrial maintenance or other industrial areas requiring correct and accurate use of hand tools and precision measuring instruments in a safe manner. Prepares students for entry-level machine operator or maintenance machinist position in an industrial plant.

*Prereq: Read – HS GPA 2.75+ OR ACPL 54+, Next Gen 250+, ACT 18+ OR Read Prep 10838105; Arith – HS GPA 2.75+ OR ACPL 65+, Next Gen 263+, ACT Math 18+ OR Arith Prep 10834109 OR Math for the Trades 31804307 with C or better*

#### **Engine Lathe 1**

**32-420-333**

**3 Credits**

*Course Typically offered in Fall/Spring*

Introduces aspiring machinists or maintenance mechanics to the basic operations and safety practices associated with the engine lathe. Prepares students for entry-level machine operator or maintenance machinist positions in an industrial plant.	
<i>Prereq: HS GPA 2.75+ OR ACPL Read 54+/Arith 65+, Next Gen Read 250+/Arith 263+, ACT Read 18+/Math 18+ OR Read Prep 10838105/Arith Prep 10834109; Coreq: Measurement &amp; Benchwork 2 32420332</i>	
<b>Manual Milling Machines 1</b> <b>32-420-335</b>	<b>3 Credits</b>
<i>Course Typically offered in /Fall/Spring</i>	
Introduces aspiring machinists or maintenance mechanics to the basic operations and safety practices associated with the manual milling machine. Prepares students for entry-level machine operator or maintenance machinist positions in an industrial plant.	
<i>Prereq: Arith – HS GPA 2.75+ OR ACPL 65+, Next Gen 263+, ACT Math 18+ OR Arith Prep 10834109; Coreq: Engine Lathe 2 32420334</i>	
<b>Blueprint Reading, Basic-MTO</b> <b>32-420-350</b>	<b>1 Credit</b>
<i>Course Typically offered in Fall/Spring</i>	
Focuses on the interpretation of machine drawings. Students study isometric and orthographic views on drawing and develop simple working drawings. Topics include dimensions, internal and external threads, holes, bores, fillets, radii, surfaces, planes, metric and geometric dimensioning and tolerancing.	
<b>Welding</b>	
<b>SMAW Techniques 1</b> <b>10-442-121</b>	<b>2 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Covers the process commonly known as stick welding. Upon completion of this course, the student will be able to weld in all positions, read some basic weld symbols, and have a basic understanding of written welding procedures.	
<i>Coreq: Welding &amp; Metal Fab Intro &amp; Safety 10621105 or not active in a program</i>	
<b>GMAW Techniques 1</b> <b>10-442-123</b>	<b>2 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Demonstrates welding on steel sheet metals and plates. Emphasis is placed on axial spray, pulse spray and short circuit mode of transfer. Upon completion of this course, the student will be able to weld in all positions, read basic weld symbols, and have an understanding of written welding procedures.	
<i>Coreq: Welding &amp; Metal Fab Intro &amp; Safety (10621105) or not active in program</i>	
<b>GMAW Techniques 2</b> <b>10-442-124</b>	<b>2 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Teaches students to weld on stainless steel and aluminum sheet metal and plate. The student will be able to differentiate, select proper electrodes, shielding gases, and properly adjust parameters. Emphasis is placed on axial spray, pulse spray and short circuit mode of transfer depending on base metal. Upon completion of this course, the student will be able to weld in all positions, read some basic weld symbols, and have a basic understanding of written welding procedures.	
<i>Coreq: Welding &amp; Metal Fab Intro &amp; Safety (10621105) and GMAW Techniques 1 (10442123 or 10621123)</i>	
<b>FCAW Techniques</b>	

<b>10-442-125</b>	<b>2 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
A study and operation of primarily flux cored arc welding. The student will learn about the different types of electrodes, fluxes and shielding gases used in these processes. Students will be able to weld in all positions, read some basic weld symbols, and have a basic understanding of written welding procedures.	
<i>Coreq: Welding &amp; Metal Fab Intro &amp; Safety (10621105) or not active in program</i>	
<b>GTAW Techniques</b>	
<b>10-442-126</b>	<b>2 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
A study and operation of primarily gas tungsten arc welding on some mild steel, with the majority of work on stainless steel and aluminum. The student will learn about the different types of electrodes and shielding gases used in these processes. Students will be able to weld in all positions, read some basic weld symbols, and have a basic understanding of written welding procedures.	
<i>Coreq: Welding &amp; Metal Fab Intro &amp; Safety 10621105 or not active in a program</i>	
<b>Robotic Arc Welding, Basic</b>	
<b>10-442-127</b>	<b>2 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Provides a survey of multiple robot programs, safety and safety systems, learning maintenance, and program editing. Students will work with robot fixtures using the GMAW process.	
<i>Coreq: GMAW Techniques 1 (10442123 or 10621123)</i>	
<b>Basic Welding for Machine Tool Operation</b>	
<b>32-442-301</b>	<b>1 Credit</b>
<i>Course Typically offered in Fall/Spring</i>	
Focuses on basic concepts of torch operation, gas metal arc welding and gas tungsten arc welding processes. Students will learn welding theory as well as how to set up and operate these welding processes and complete lab work with proficiency.	
<b>Welding/Metal Fab Intro &amp; Safety</b>	
<b>10-621-105</b>	<b>1 Credit</b>
<i>Course Typically offered in Fall/Spring</i>	
Provides instruction in welding and metal fabrication safety. Students will identify environmental work and personnel hazards common with the industry and proper personal protection methods. Students will also perform common tasks essential to utilization of the welding and metal fabrication lab.	
<b>Weld Print Reading</b>	
<b>10-621-108</b>	<b>1 Credit</b>
<i>Course Typically offered in Fall/Spring</i>	
Provides practice in reading shop drawings. Topics include orthographic projection, auxiliary views, revolved sections, surface and centerline relationships, isometric drawings, scale drawing and tolerances.	
<i>Coreq: Weld/Metal Fab Intro &amp; Safety (10621105)</i>	
<b>Weld Symbols</b>	
<b>10-621-114</b>	<b>1 Credit</b>
<i>Course Typically offered in Fall/Spring</i>	
Teaches students to interpret detailed weld symbols using the American Welding Society standard.	
<i>Coreq: Weld/Metal Fab Intro &amp; Safety (10621105)</i>	

**Welding Metallurgy****10-621-116****3 Credits***Course Typically offered in Fall/Spring*

Introduces students to basic metallurgy including the location of ore deposits, derivation of metals from their ores, refinement and purification, and admixture and alloying. The classification of ferrous and nonferrous metals and the study of basic metallurgical diagrams is also discussed. Students focus on the behavior of metal during welding and the effects of welding on the properties of metals.

**Industrial Manufacturing Tech****Manufacturing Tech****Interpretation of Engineering Drawings****10-623-106****2 Credits***Course Typically offered in Fall/Spring*

Teaches students how to visualize a three-dimensional part from a drawing, interpret dimensions and tolerances, identify symbols commonly used in engineering drawings, and use engineering drawings for comparison, analysis and problem-solving purposes.

**Engineering Materials****10-623-121****3 Credits***Course Typically offered in Fall*

Discusses the relationship between the properties and processes of various materials, including metals, ceramics, polymers, and composites. Emphasis is on the fundamentals of selecting materials based on engineering design criteria.

**Project Management****10-623-132****3 Credits***Course Typically offered in Fall/Spring*

Offers a systematic approach to coordinating, scheduling, and controlling activities, people, and resources during short-term and long-term projects. Some of the tools presented include Work Breakdown Structures, Activity Diagrams, and Gantt Charts.

**Manufacturing Processes****10-623-148****3 Credits***Course Typically offered in Fall/Spring*

Presents a comprehensive overview of the fundamental manufacturing process families. Learners focus first on how the processes move from a primary process of operation to the secondary process; then examine the tools and tooling used in manufacturing, forming, and casting techniques and their application, as well as material removal processes.

**Transformational Leadership****10-623-155****3 Credits***Course Typically offered in Fall/Spring*

Explores the fundamental truths of good leadership that have stood the test of time. Learners use these fundamentals to develop their leadership skills to see how they can make a difference.

**Quality Management****10-623-171****3 Credits***Course Typically offered in Fall/Spring*



Includes supplier quality management and cost of quality concepts.	
<b>Lean Tools</b>	
<b>10-623-195</b>	<b>2 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Introduces useful tools to use when implementing Lean in your organization. Major course topics include team building, lean tools and project management.	
<b>Industrial Safety</b>	
<b>Essentials of Manufacturing Safety</b>	
<b>10-449-188</b>	<b>1 Credit</b>
<i>Course Typically offered in Fall/Spring</i>	
Provides information on the safety responsibilities of workers within the manufacturing industry. Special emphasis will be placed on common hazards and methods of controls.	
<b>Logistics &amp; Material Mgmt</b>	
<b>Supply Chain Career Exploration</b>	
<b>10-182-123</b>	<b>1 Credit</b>
<i>Course Typically offered in Fall/Spring</i>	
Acquaints students with career options and related job skills, salaries and employment trends in the Supply Chain field. Familiarizes them with the different aspects that make up the supply chain and the various career path options.	
<b>Fundamentals of Supply Chain Management</b>	
<b>10-182-131</b>	<b>3 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Introduces the key concepts of supply chain management. Students learn tips, techniques, and best practices in supply chain operations. Students will stay up to date on the newest thinking, strategies, developments, and technologies in supply chain management.	
<b>Marketing</b>	
<b>Interior Design</b>	
<b>Fundamentals of Design</b>	
<b>10-304-110</b>	<b>3 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Provides a foundation in the principles and elements of design. The understanding of good design, taste and creativity is stressed in student projects. Students use their projects in a design show.	
<b>Basic Interior Design</b>	
<b>10-304-125</b>	<b>3 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Focuses on the basic elements, materials, and mathematics of interior design. Topics include furniture arranging and the treatment of windows, walls and floors.	
<b>Color Theory</b>	
<b>10-304-127</b>	<b>3 Credits</b>

<i>Course Typically offered in Fall/Spring</i>	
Explores the basic principles of color. Color harmonies are correlated with practical problems as they apply to interior design. Students present their plans, selection of furnishings and colors for group discussion and critique.	
<b>Textiles</b>	
<b>10-304-129</b>	<b>3 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Studies textiles as they appear in interiors, taking the student from fiber to fabric. Topics include fibers, yarns, fabric construction, finishes and decorating techniques. Emphasis is on selection, care, use and textile legislation as related to the field of interior design.	
<b>Business Principles for Interior Design</b>	
<b>10-304-135</b>	<b>1 Credit</b>
<i>Course Typically offered in Fall/Spring</i>	
Presents the business aspects of a career in interior design. Topics include business forms, billing procedures and business setup.	
<b>History of Furniture</b>	
<b>10-304-144</b>	<b>3 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Examines the history of art, architecture and furnishings from early Egypt through the Western World of the 20th century. Special attention is given to European court styles and the decorative arts of Colonial America.	
<b>Computer Basics for Design</b>	
<b>10-304-150</b>	<b>1 Credit</b>
<i>Course Typically offered in Fall/Spring</i>	
Introduces the student to current Interior Design software used to create effective client presentations and professional portfolios. Students will get an overview of software used for 3D rendering, photo editing and presentation layouts.	
<b>Flooring</b>	
<b>10-304-152</b>	<b>1 Credit</b>
<i>Course Typically offered in Fall</i>	
Helps the student with a special interest in carpet and flooring gain a further knowledge of flooring types and materials. Students practice planning layouts effectively and accurately. Selling tips are discussed.	
<b>Presentation Techniques</b>	
<b>10-304-166</b>	<b>3 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Introduces the student to a variety of techniques used in design communication. The student will learn and practice perspective drawing, illustration techniques and board layout styles. Good interior design requires adequate and appropriate methods of communication and presentation.	
<b>Drafting Skills for Interiors</b>	
<b>10-304-167</b>	<b>3 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Introduces the techniques and language of architectural drafting and construction. Basic floor plan and elevation drafting is practiced.	

<b>Marketing</b>	
<b>Principles of Marketing</b>	
<b>10-104-151</b>	<b>3 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Introduces students to the marketing function and process. Techniques for analyzing the marketing environment and understanding customers' needs and wants are explored. Students apply marketing principles to select target markets, develop positioning and create marketing programs to serve markets. Topics include product management and development, pricing, distribution and promotion strategies.	
<b>Transportation</b>	
<b>AutoBody - Chassis &amp; Finish</b>	
<b>Internship-Vehicle Repair</b>	
<b>10-405-124</b>	<b>1 Credit</b>
Focuses on how a collision shop is organized and understanding the day to day operations. It will also focus on the use of basic hand tools, power tools and equipment in accordance with industry accepted standards. Students are introduced to collision repair industry terms and definitions used in daily operation.	
<b>Refinishing Set-up and Safety</b>	
<b>10-405-150</b>	<b>2 Credits</b>
<i>Course Typically offered in Fall</i>	
Focuses on different refinishing spray gun set-up, operation, and maintenance. There is an emphasis on personal protection, as well as the environmental regulations regarding working with refinishing materials. Students are also introduced to buffing and polishing in this course.	
<i>Coreq: Advanced Nonstructural Repair 10405154; AND Auto Body Uniforms &amp; Safety Kit 94405001 OR Auto Body Uniforms 94405007 and Auto Body Safety Kit 94405006</i>	
<b>Part Removal and Installation</b>	
<b>10-405-151</b>	<b>3 Credits</b>
<i>Course Typically offered in Fall</i>	
Focuses on developing the knowledge and skills necessary for interior and exterior part removal, storage, replacement, and installation. Students are also introduced to repair planning.	
<i>Coreq: Refinishing Set-up and Safety 10405150 OR (Metal Refinishing 10405148 AND Paint Refinishing 10405149)</i>	
<b>Basic Nonstructural Repair</b>	
<b>10-405-153</b>	<b>3 Credits</b>
<i>Course Typically offered in Fall</i>	
Focuses on developing the knowledge and skills necessary for understanding sheet metal characteristics, repair sequencing, and making repair versus replace decisions. Students are introduced to the process of straightening steel exterior panels.	
<i>Coreq: Part Removal and Installation 1040515 OR Part Removal and Installation Co-op 10405203</i>	
<b>Advanced Nonstructural Repair</b>	
<b>10-405-154</b>	<b>2 Credits</b>
<i>Course Typically offered in Fall</i>	
Focuses on developing the knowledge and skills necessary for advanced straightening of steel in complex areas as well as straightening aluminum exterior panels.	
<i>Coreq: Basic Nonstructural Repair 10405153 OR Basic Nonstructural Repair Co-op 10405204</i>	

**Plastic Repair****10-405-155****2 Credits***Course Typically offered in Spring*

Focuses on developing the knowledge and skills necessary for repairing the variety of plastics used on automotive vehicles.

*Prereq: Advanced Nonstructural Repair 10405154 OR Advanced Nonstructural Repair Co-op 10405205; Coreq: Refinishing Color Theory 10405159 OR Refinishing Color Theory Co-op 10405208*

**Surface Preparation and Masking****10-405-156****2 Credits***Course Typically offered in Spring*

Focuses on developing the knowledge and skills necessary for masking and prepping surfaces in various refinishing scenarios.

*Coreq: Plastic Repair 10405155*

**Basic Refinishing Application****10-405-157****3 Credits***Course Typically offered in Spring*

Focuses on developing the knowledge and skills necessary for applying automotive refinish materials.

*Coreq: Surface Preparation and Masking 10405156*

**Advanced Refinishing Application****10-405-158****3 Credits***Course Typically offered in Spring*

Focuses on developing the knowledge and skills necessary for advanced application of automotive refinish materials, including blending and tri-stage finishes.

*Coreq: Basic Refinishing Application 10405157 OR Basic Refinishing Application Co-op 10405206*

**Refinishing Color Theory****10-405-159****2 Credits***Course Typically offered in Spring*

Focuses on developing the knowledge and skills necessary for tinting automotive refinish materials, which includes an in-depth look at color theory.

*Coreq: Advanced Refinishing Application 10405158 OR Advanced Refinishing Application Co-op 10405207*

**Automotive Technology****Automotive Maintenance and Light Repair 1****10-602-100****4 Credits***Course Typically offered in Fall/Spring*

Focuses on developing skills in professionalism, safety, and the use of basic and power tools. Students are introduced to the automotive service industry and learn to use both comprehensive and manufacturer's service information to perform vehicle maintenance in 9 Automotive Service Excellence (ASE) areas.

*Auto Plans Prereq: Bennett Assessment 94602100 = 27% or Applied Science 10806173 and Coreq: Auto Uniforms 94602001; Auto Body Plans Coreq: Auto Body Uniforms 94405007 or Uniforms/Safety 94405001; Career Tech Ed Inst Plan Coreq: CTEI Uniforms 94602005*

<b>Automotive Maintenance and Light Repair 2</b>	
<b>10-602-101</b>	<b>4 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Focuses on developing the skills needed to diagnose, service and repair vehicle braking systems with an introduction to ABS. Includes the development of skills needed to perform maintenance and repair of chassis and driveline related items.	
<i>Coreq: Auto MLR 1 - 10602100</i>	
<b>Automotive Maintenance and Light Repair 3</b>	
<b>10-602-102</b>	<b>4 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Focuses on developing the skills needed to diagnose, service and repair electrical and electronic systems. Learners apply Ohm's Law to basic electrical circuit diagnosis. Develops skills needed to diagnose, service, and repair electrical and electronic systems, including batteries, starting, charging, and lighting systems, and computer control systems.	
<i>Coreq: Auto MLR 1 - 10602100; Automotive Electrical Kit 94602002</i>	
<b>Automotive Maintenance and Light Repair 4</b>	
<b>10-602-105</b>	<b>4 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Focuses on developing the skills needed to diagnose, service and repair steering and suspension systems including wheel alignment procedures. Course includes maintenance and light repair of hybrid vehicles, heating, ventilation, and air conditioning as well as supplemental inflatable restraints.	
<i>Coreq: Auto MLR 1 - 10602100</i>	
<b>Applied Science for Transportation</b>	
<b>10-806-173</b>	<b>3 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Engages students in hands-on activities relating the science principles involved with technical measurement, heating and cooling, fluid properties, electricity, and mechanical advantage to applications in the transportation industry.	
<b>Diesel Technology</b>	
<b>Introduction to Diesel Technology</b>	
<b>10-412-102</b>	<b>4 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Introduces the diesel shop environment, and emphasizes shop safety and general shop practices. Introduces over the road commercial motor vehicle preventative maintenance, and prepares students for success in the core diesel program classes.	
<i>Prereq: Read - HS GPA 2.75+ OR ACPL 47+, Next Gen 243+, ACT 15+ OR Read Prep 10838105; Coreq: Diesel Uniforms 94412002</i>	
<b>Heavy Duty Diesel Steering &amp; Suspension</b>	
<b>10-412-103</b>	<b>4 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Covers maintenance, repair, and minor diagnostics of heavy duty steering & suspension systems used on over the road commercial motor vehicles.	
<i>Coreq: Introduction to Diesel Technology 10412102 OR 10412101</i>	
<b>Heavy Duty Diesel Engine Maintenance</b>	

<b>10-412-104</b>	<b>4 Credits</b>
<i>Course Typically offered in /Fall/Spring</i>	
Covers maintenance, repair, and minor diagnostics on heavy duty diesel engines used in over the road commercial motor vehicles.	
<i>Coreq: Introduction to Diesel Technology 10412102 OR 10412101</i>	
<b>Heavy Duty Diesel HVAC &amp; Cab Systems</b>	
<b>10-412-105</b>	<b>4 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Covers maintenance, repair, and minor diagnostics on heating, ventilation, and air conditioning systems used in heavy duty over the road commercial motor vehicles. Students learn to maintain and repair cab components used on over the road commercial motor vehicles, and prepare for the Federal EPA 609 certification test.	
<i>Coreq: Introduction to Diesel Technology 10412102 OR 10412101</i>	
<b>Heavy Duty Diesel Drivetrains</b>	
<b>10-412-106</b>	<b>4 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Covers maintenance, repair, and minor diagnostics on drivetrains used in heavy duty over the road commercial motor vehicles. Students service clutches, transmissions, differentials, drivelines, and wheel ends used on over the road commercial motor vehicles.	
<i>Coreq: Introduction to Diesel Technology 10412102 OR 10412101</i>	
<b>Heavy Duty Diesel Air &amp; Hydraulic Brakes</b>	
<b>10-412-107</b>	<b>4 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Covers maintenance, repair, and minor diagnostics on air and hydraulic brake system used on over the road commercial motor vehicles.	
<i>Coreq: Introduction to Diesel Technology 10412102 OR 10412101</i>	
<b>Heavy Duty Diesel Foundation Brakes</b>	
<b>10-412-108</b>	<b>4 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Covers maintenance, repair, and minor diagnostics on foundation brake systems used on over the road commercial motor vehicles.	
<i>Coreq: Introduction to Diesel Technology 10412102 OR 10412101</i>	
<b>Heavy Duty Diesel Electrical Systems</b>	
<b>10-412-109</b>	<b>4 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Covers maintenance, repair, and minor diagnostics on vehicle electrical system components used on over the road commercial motor vehicles.	
<i>Coreq: Introduction to Diesel Technology 10412102 OR 10412101; Diesel Electrical Kit 94412003</i>	
<b>Truck Driving</b>	
<b>Commercial Driver's License - Theory</b>	
<b>30-458-301</b>	<b>2 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	

Covers Federal Motor Carrier Safety Regulations (FMCSRs) information, basic operation, vehicle review, and operating guidelines for a Class A commercial combination motor vehicle. Additional topics include safe operating procedures and advanced operating practices. Class includes in-person meetings at scheduled times and required online instructional activities.	
<i>Students must be 18 years of age to participate. Students must have a valid class D driver's license. Students must be able to meet all pre-requisites prior to enrolling in this class. Students must meet all DOT qualifications prior to enrolling in this class.</i> <i>Prereq: Active in Truck Driving (30-458-1) OR CDL Straight Truck (20-458-2) plan</i> <i>Coreq: Truck Driving Books and Supplies 94458001 OR Straight Truck Books and Supplies 94458006</i>	
<b>Class A CDL - Behind the Wheel Range</b>	<b>3 Credits</b>
<b>30-458-302</b>	
<i>Course Typically offered in Fall/Spring</i>	
Covers behind the wheel activities including the operation of a combination commercial motor vehicle. Driving exercises related to basic vehicle control skills and mastery of basic maneuvers, necessary to operate the vehicle safely, are conducted. Proper techniques of vehicle inspections, backing exercises, coupling and uncoupling of a Class A commercial combination motor vehicle, are developed.	
<i>Students must be 18 years of age to participate. Students must have a valid class D driver's license. Students must be able to meet all pre-requisites prior to enrolling in this class. Students must meet all DOT qualifications prior to enrolling in this class.</i> <i>Prereq: Active in Truck Driving plan;</i> <i>Coreq: CDL-Theory 30458301</i>	
<b>Class A CDL – Behind the Wheel Public Road</b>	<b>3 Credits</b>
<b>30-458-303</b>	
<i>Course Typically offered in Fall/Spring</i>	
Covers behind the wheel activities driving a Class A commercial combination vehicle in a variety of public roadway situations and conditions. Road driving prepares the student with the necessary skills required to earn a Class A commercial driver's license (CDL).	
<i>Students must be 18 years of age to participate. Students must have a valid class D driver's license. Students must be able to meet all pre-requisites prior to enrolling in this class. Students must meet all DOT qualifications prior to enrolling in this class.</i> <i>Prereq: Active in Truck Driving plan;</i> <i>Coreq: Class A CDL-Behind the Wheel Range 30458302</i>	
<b>Commercial Driver's License - Theory 2</b>	<b>1 Credit</b>
<b>30-458-304</b>	
<i>Course Typically offered in Fall/Spring</i>	
Covers federal Motor Carrier Safety Regulations (FMCSRs) information for a Class A commercial combination motor vehicle. Additional topics include professional operating procedures and specialty vehicle operations.	
<i>Students must be 18 years of age to participate. Students must have a valid class D driver's license. Students must be able to meet all pre-requisites prior to enrolling in this class. Students must meet all DOT qualifications prior to enrolling in this class.</i> <i>Prereq: Active in Truck Driving plan</i> <i>Coreq: Class A CDL-Behind the Wheel Public 30458303</i>	
<b>Class B CDL - Range and Road</b>	<b>3 Credits</b>
<b>30-458-306</b>	
<i>Course Typically offered in Fall/Spring</i>	

Covers Federal Motor Carrier Safety Regulations (FMCSRs) information, basic operation, vehicle review, and operating guidelines for a Class B commercial motor vehicle. Additional topics include safe operating procedures and advanced operating practices.

*Students must be 18 years of age to participate. Students must have a valid class D driver's license. Students must be able to meet all pre-requisites prior to enrolling in this class. Students must meet all DOT qualifications prior to enrolling in this class.*

*Prereq: Active in CDL Straight Truck plan; Coreq: CDL Theory 30458301*

## **General Studies**

### **College Skills**

#### **College Success: On Course**

**10-890-100**

**1 Credit**

*Course Typically offered in Fall/Spring*

On Course helps you learn a number of proven strategies for creating greater academic, professional and personal success. You will discover how to create a rich, fulfilling life by developing new beliefs and behaviors. College Success: On Course empowers you to make wise choices in your academic and personal life which leads to improved experiences and outcomes.

### **Communication Skills**

#### **English Composition 1**

**10-801-136**

**3 Credits**

*Course Typically offered in Fall/Spring*

Designed for learners to develop knowledge and skills in all aspects of the writing process. Planning, organizing, writing, editing and revising are applied through a variety of activities. Students will analyze audience and purpose, use elements of research and format documents using standard guidelines. Individuals will develop critical reading skills through analysis of various written documents.

*Prereq: HS GPA 2.75+ OR ACPL Read 54+/Sent 83+, Next Gen Read 250+/Sent 250+, ACT Read 18+/Engl 18+ OR Read Prep 10838105/Sent Prep 10831103*

#### **Written Communication**

**10-801-195**

**3 Credits**

*Course Typically offered in Fall/Spring*

Teaches the writing process which includes prewriting, drafting and revising. Through writing assignments, students analyze audience and purpose, research and organize ideas, and format and design documents based on subject matter and content. Class sessions and assignments involve giving oral presentations and using computers.

*Prereq: HS GPA 2.75+ OR ACPL Read 54+/Sent 83+, Next Gen Read 250+/Sent 250+, ACT Read 18+/Engl 18+ OR Read Prep 10838105/Sent Prep 10831103*

#### **Oral/Interpersonal Comm**

**10-801-196**

**3 Credits**

*Course Typically offered in Fall/Spring*

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.

*Prereq: HS GPA 2.75+ OR ACPL Read 54+/Sent 83+, Next Gen Read 250+/Sent 237+, ACT Read 18+/Engl 15+ OR Read Prep 10838105/Sent Prep 74851745*

#### **Speech**

**10-801-198**

**3 Credits**



<i>Course Typically offered in Fall/Spring</i>	
Covers the fundamentals of oral presentation, topic selection, audience analysis, speech organization, research, evidence and support, delivery, evaluation, listening and group problem solving.	
<i>Prereq: HS GPA 2.75+ OR ACPL Read 54+/Sent 83+, Next Gen Read 250+/Sent 237+, ACT Read 18+/Engl 15+ OR Read Prep 10838105/Sent Prep 74851745</i>	
<b>Mathematics</b>	
<b>College Mathematics</b>	
<b>10-804-107</b>	<b>3 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Designed to review and develop fundamental concepts of mathematics in the areas of algebra, geometry, trigonometry, measurement and data. Special emphasis is placed on problem solving, critical thinking and logical reasoning, making connections, and using calculators.	
<b>College Technical Math 1A</b>	
<b>10-804-113</b>	<b>3 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Included topics are 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 Math 1A and College Technical Math 1B is the equivalent of College Technical Math 1.	
<b>College Technical Math 1B</b>	
<b>10-804-114</b>	<b>2 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
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 Math 1A and College Technical Math 1B is the equivalent of College Technical Math 1.	
<i>Prereq: College Technical Math 1A (10804113)</i>	
<b>Intermediate Algebra with Applications</b>	
<b>10-804-118</b>	<b>4 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Offers algebra content with applications. Topics include properties of real numbers, order of operations, algebraic solution for linear equations and inequalities, operations with polynomial and rational expressions, operations with rational exponents and radicals, algebra of inverse, logarithmic and exponential functions.	
<b>Math w Business Apps</b>	
<b>10-804-123</b>	<b>3 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Covers real numbers, basic operations, linear equations, proportions with one variable, percents, simple interest, compound interest, annuities, applying math concepts to the purchasing/buying process, applying math concepts to the selling process, and basic statistics with business/consumer applications.	
<b>Math &amp; Logic</b>	
<b>10-804-133</b>	<b>3 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	

Students will apply mathematical problem solving techniques. Topics will include symbolic logic, sets, algebra, Boolean algebra, and number bases.	
<b>Quantitative Reasoning</b> <b>10-804-135</b>	<b>3 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Intended to develop analytic reasoning and the ability to solve quantitative problems. Topics to be covered may include: construction and interpretation of graphs; descriptive statistics; geometry and spatial visualizations; math of finance; functions and modeling; probability; and logic. Appropriate use of units and dimensions, estimates, mathematical notation, and available technology will be emphasized throughout the course.	
<b>Introductory Statistics</b> <b>10-804-189</b>	<b>3 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Teaches students to display data with graphics, describe distributions with numbers, perform correlation and regression analyses, and design experiments. Students use probability and distributions to make predictions, estimate parameters and test hypotheses. They also draw inferences about relationships including ANOVA.	
<b>College Algebra and Trigonometry with Applications</b> <b>10-804-197</b>	<b>5 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
This course covers skills needed for success in Calculus and many application areas at the baccalaureate level. Algebra 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. Trigonometry topics include the unit circle, trigonometric functions, graphs, identities, equations, inverse functions, solutions of triangles, complex numbers, polar coordinates, and vectors.	
<b>Calculus 1</b> <b>10-804-198</b>	<b>4 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Introduction to differential and integral calculus and plane analytic geometry; Limits, derivatives, and graphs of algebraic, trigonometric, exponential, and logarithmic functions; antiderivatives, the definite integral, and the fundamental theorem of calculus, with applications.	
<i>Prereq: College Algebra and Trig with Apps 10804197; OR College Tech Math 1 - 10804115 &amp; College Tech Math 2 - 10804116 AND completion of Calculus entrance exam (scheduled by calling the Math Department Chair); OR not currently pursuing a degree</i>	
<b>Calculus 2</b> <b>10-804-181</b>	<b>4 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Designed for students of mathematics, science, and engineering. This course continues the study of analytic geometry and calculus. Topics included in this course are techniques of differentiation and integration of transcendental functions, analysis of infinite sequences and series, an introduction to first-order differential equations, parametric equations and derivatives of parametric curves, polar coordinates in the plane and integrals using polar coordinates, the analytic geometry of the conic sections, and iterated integration.	
<i>Prereq: Calculus 1 10804198 or not currently pursuing a degree</i>	
<b>Calculus 3</b> <b>10-804-102</b>	<b>4 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Designed for students of mathematics, science, and engineering, this course continues the study of analytic geometry and calculus. Topics included in this course are vectors in two and three dimensions, dot and cross	

products, lines, and planes; vector functions and their differentiation and integration; multivariate differential and integral calculus, partial derivatives and their applications, gradients, and multiple integrals; line and surface integrals, Fundamental Theorem of line integrals, Green's Theorem, and Stokes' Theorem.

*Prereq: Calculus 2 10804181 or not currently pursuing a degree*

## **Math for the Trades**

**31-804-307**

**2 Credits**

*Course Typically offered in Fall/Spring*

Focuses on the math skills needed for various trades. Topics include arithmetic fundamentals, percent and proportion applications, the metric system, conversions, practical geometry, measurement applications, signed numbers and formula evaluation. Micrometer, equation solving and standard rule measurement units are included as needed. Scientific calculator use is introduced as needed.

## **Natural Science**

### **Principles of Animal Biology**

**10-806-105**

**4 Credits**

*Course Typically offered in Fall/Spring*

Introductory course focused on general biological principles, cell structure and function, genetics, organ system anatomy and physiology, behavior, evolution, and ecology. May include dissection of fresh and/or preserved materials.

### **Principles of Sustainability**

**10-806-112**

**3 Credits**

*Course Typically offered in Fall/Spring*

Prepares the student to develop sustainable literacy; analyze interconnections between physical and biological science, and environmental systems; summarize the effects of sustainability; analyze connections among social, economic and environmental systems; employ energy conservation strategies to reduce use of fossil fuels; investigate alternative energy option; evaluate options for waste disposal and recycling; and analyze approaches used to promote and implement sustainability.

### **General Biology**

**10-806-114**

**4 Credits**

*Course Typically offered in Fall/Spring*

Introduces general biological concepts and principles. Emphasis is on cell structure and function, genetics, evolution and taxonomical relationships. Consideration is also given to diversity among the various kingdoms. This course emphasizes an environmental perspective and is suitable for students in Natural Resources, Early Childhood Education, Laboratory Science, Forensic Science and others interested in environmental biology.

*Prereq: HS GPA 2.75+ OR ACPL Read 54+/Sent 83+, Next Gen Read 250+/Sent 237+, ACT Read 18+/Engl 15+ OR Read Prep 10838105/Sent Prep 74851745*

### **General Chemistry**

**10-806-134**

**4 Credits**

*Course Typically offered in Fall/Spring*

Covers inorganic chemistry and basic organic chemistry. Topics include metrics, problem solving, atomic structure, chemical reactions, solutions and concentrations, ionization, pH and organic compounds.

*Prereq: Alg – HS GPA 2.75+ OR ACPL 51+, Next Gen 250+, ACT Math 18+ OR Alg Prep 10834109 OR College Tech Math 1 10804115 OR College Tech Math 1A 10804113 OR College Math 10804107 OR Math Common Topics 10804117;*

### **General Physics 1**

<b>10-806-154</b>	<b>4 Credits</b>
<i>Course Typically offered varies</i>	
Presents the application and theory of basic physics principles. This course emphasizes problem-solving, laboratory investigation and applications. Topics include unit conversion and analysis, vectors, translational and rotational kinematics, translational and rotational dynamics, heat and temperature, and harmonic motion and waves.	
<i>Prereq: College Technical Math 1 - 10804115 OR College Technical Math 1A - 10804113 OR College Algebra and Trigonometry w Apps 10804197 OR instructor consent</i>	
<b>Gen Anatomy &amp; Physiology</b>	
<b>10-806-177</b>	<b>4 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
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.)	
<i>Student Effort: This is a rigorous, fast-paced class, designed to prepare you for the rigor of your future science/program courses. The average amount of time students need to spend on this 4-credit, college-level science course is 15-20 hours (5 hours in class plus 10-15 hours outside of scheduled class time) per week. The amount of coursework and level of rigor is based on this assumption. The estimate includes learning activities (e.g., reading, lectures, studying, etc.) and graded activities and will vary by topic. It is strongly recommended that students take advantage of FVTC's TLC (Teaching and Learning Center), which offers peer-tutoring at no charge and the opportunity to handle/study lab models.</i>	
<i>Prereq: Read – ACPL 80+, Next Gen 263+, ACT Rd 20+, TEAS 50+ OR 10836123 OR 10801195/10801136 (C or better); Sent – ACPL 83+, Next Gen 250+, ACT Eng 18+, TEAS 50+, HS GPA 2.75+ OR 10831103; 1cr HS Chem OR 10806134 (C or better); 1 Gen A&amp;P enroll per term</i>	
<b>Adv Anatomy &amp; Physiology</b>	
<b>10-806-179</b>	<b>4 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Examines human anatomy and physiology using a body systems approach with emphasis on interrelationships between form and function at the gross and microscopic levels of organization. Lab experimentation includes analysis of cellular metabolism and individual components of body systems (nervous, neuro-muscular, cardiovascular, and urinary). Continued examination of homeostatic mechanisms and their relationship to fluid, electrolyte, acid-base balance and blood; and integration of genetics to human reproduction and development are also included in this course.	
<i>Prereq: General Anatomy and Physiology 10806177 with a C or better AND 1 credit of HS chemistry or General Chemistry 10806134 with a grade of C or better.</i>	
<b>Intro to Biochemistry</b>	
<b>10-806-186</b>	<b>4 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Provides students with skills and knowledge of organic and biological chemistry necessary for application within Nursing and other Allied Health careers. Emphasis is 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.	
<i>Prereq: 1 credit of HS chemistry OR General Chemistry 10806134 with grade of C or better; HS GPA 2.75+ OR ACPL Read 54+/Sent 83+, Next Gen Read 250+/Sent 237+, ACT Read 18+/Engl 15+ OR Read Prep 10838105/Sent Prep 74851745</i>	
<b>Basic Anatomy</b>	
<b>10-806-189</b>	<b>3 Credits</b>

<i>Course Typically offered in Fall/Spring</i>	
Examines concepts of anatomy and physiology as they relate to health careers. Learners correlate anatomical and physiological terminology to all body systems.	
<i>Prereq: HS GPA 2.75+ OR ACPL Read 54+/Sent 83+, Next Gen Read 250+/Sent 237+, ACT Read 18+/Engl 15+ OR Read Prep 10838105/Sent Prep 74851745</i>	
<b>Social Science</b>	
<b>US History to 1877</b>	
<b>10-803-111</b>	<b>3 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Surveys U.S. political, social, and economic development from the pre-colonial era to the post-Civil War period. Emphasizes reading, writing, and discussion.	
<b>Native American History</b>	
<b>10-803-114</b>	<b>3 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Introductory course focusing on Native American history from the pre-Columbian era to the present. Topics include origins, cultures and spirituality, economics, interactions with Euro-Americans and the US government (including removal and assimilation), alliances and rivalries, military strategies, native leadership, and tribal sovereignty. Explores the connections between native history and current affairs, with emphasis on native voices.	
<b>Stress Management: Fitness for Life</b>	
<b>10-807-103</b>	<b>1 Credit</b>
<i>Course Typically offered in Fall/Spring</i>	
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.	
<b>Think Critically &amp; Creatively</b>	
<b>10-809-103</b>	<b>3 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Provides instruction in the vital, realistic and practical methods of thinking which are in high demand in all occupations of substance today. Decision making, problem solving, detailed analysis of ideas, troubleshooting, argumentation, persuasion, creativity, setting goals and objectives, and more are considered in-depth as the student applies specific thinking strategies and tools to situations in a wide variety of workplace, personal, academic and cultural situations.	
<i>Prereq: HS GPA 2.75+ OR ACPL Read 54+/Sent 83+, Next Gen Read 250+/Sent 237+, ACT Read 18+/Engl 15+ OR Read Prep 10838105/Sent Prep 74851745</i>	
<b>Marriage &amp; Family</b>	
<b>10-809-128</b>	<b>3 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
This course introduces the student to the sociological aspects of marriage and family life in a contemporary American society. Emphasis is on the study of cognitive, emotional, and behavioral patterns associated with courtship, love, mate selection, sexuality, and marriage. Diversity in family structure is also introduced.	
<b>Abnormal Psychology</b>	
<b>10-809-159</b>	<b>3 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	

Focuses on a broad description of psychological disorders such as psychosis, neurosis and personality problems. It is geared toward an understanding of the deeper level forces and adjustment problems that create mental and emotional stress. Students prepare to recognize and deal with persons with mental dysfunctions.

*Prereq: Introduction to Psychology (10809198) or Psychology of Human Relations (10809199)*

### **Intro to Ethics: Theory & App**

**10-809-166**

**3 Credits**

*Course Typically offered in Fall/Spring*

Provides a basic understanding of ethical theories and uses diverse ethical perspectives to analyze and compare relevant issues. Students will critically evaluate individual, social and/or professional standards of behavior and apply a systematic decision-making process to these situations.

*Prereq: HS GPA 2.75+ OR ACPL Read 54+/Sent 83+, Next Gen Read 250+/Sent 237+, ACT Read 18+/Engl 15+ OR Read Prep 10838105/Sent Prep 74851745*

### **Introduction to Diversity Studies**

**10-809-172**

**3 Credits**

*Course Typically offered in Fall/Spring*

Develops workplace skills needed to work with diverse groups of people. Ethnic relations are studied in global and comparative perspectives. Students examine their biases and gain awareness of differences and common ground shared. The course emphasizes how personal and cultural diversity enhances the effectiveness of work groups.

*Prereq: HS GPA 2.75+ OR ACPL Read 54+/Sent 83+, Next Gen Read 250+/Sent 237+, ACT Read 18+/Engl 15+ OR Read Prep 10838105/Sent Prep 74851745*

### **Developmental Psychology**

**10-809-188**

**3 Credits**

*Course Typically offered in Fall/Spring*

Studies human development across the lifespan from conception through old age and death. It focuses on the physical, intellectual, social, emotional and moral development of a person and presents the normal range of responses, reactions and behaviors of age-related development. It also helps students to distinguish what might be considered dysfunctional.

*Prereq: Intro to Psychology (10809198) or enrollment in the Practical Nursing plan*

### **Economics**

**10-809-195**

**3 Credits**

*Course Typically offered in Fall/Spring*

Provides a foundation of economic concepts and institutions so that students can apply economic thinking to their own decisions as consumers, employees and citizens in a market-oriented economic system. Topics include supply and demand, employment, prices and production, fiscal policy, monetary policy, market structures, and international trade and finance.

*Prereq: HS GPA 2.75+ OR ACPL Read 54+/Sent 83+, Next Gen Read 250+/Sent 237+, ACT Read 18+/Engl 15+ OR Read Prep 10838105/Sent Prep 74851745*

### **Intro to Sociology**

**10-809-196**

**3 Credits**

*Course Typically offered in Fall/Spring*

Focuses on the basic concepts of the intercultural discipline of sociology. Emphasis is placed on culture, socialization and social stratification. The course also looks at five institutions: family, politics, economics, religion and education. Additional topics include demography, deviance, technology, environmental social issues, and social change and organization.

*Prereq: HS GPA 2.75+ OR ACPL Read 54+/Sent 83+, Next Gen Read 250+/Sent 237+, ACT Read 18+/Engl 15+ OR Read Prep 10838105/Sent Prep 74851745*

<b>Contemporary Amer Society</b>	
<b>10-809-197</b>	<b>3 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Analyzes public policy issues relating to government, media, education, family and the workplace. This course also looks at the impact of global, multicultural and technological trends on American life and explores these issues by using critical thinking skills, advocating points of view, and participating in political processes.	
<i>Prereq: HS GPA 2.75+ OR ACPL Read 54+/Sent 83+, Next Gen Read 250+/Sent 237+, ACT Read 18+/Engl 15+ OR Read Prep 10838105/Sent Prep 74851745</i>	
<b>Intro to Psychology</b>	
<b>10-809-198</b>	<b>3 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Focuses on the theoretical foundation of human functioning and looks at learning, motivation, emotions, personality, deviance and pathology, physiological factors and social influences. Students consider the complexities of human relationships in personal, social and vocational settings.	
<i>Prereq: HS GPA 2.75+ OR ACPL Read 54+/Sent 83+, Next Gen Read 250+/Sent 237+, ACT Read 18+/Engl 15+ OR Read Prep 10838105/Sent Prep 74851745</i>	
<b>Psychology of Human Relations</b>	
<b>10-809-199</b>	<b>3 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Explores the relationship between the general principles of psychology and people's everyday lives. Students seek a deepened sense of awareness of themselves and others, and to improve their relationships at work, in the family and in society.	
<i>Prereq: HS GPA 2.75+ OR ACPL Read 54+/Sent 83+, Next Gen Read 250+/Sent 237+, ACT Read 18+/Engl 15+ OR Read Prep 10838105/Sent Prep 74851745</i>	
<b>Human Relations</b>	
<b>31-809-300</b>	<b>2 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Explores practical applications of issues in psychology and human behavior that affect a person's daily life. The objective is to enhance the student's quality of life by developing an awareness of the connection between his/her personal life and work life. This course is intended for technical diploma students.	
<b>World Languages and Cultures</b>	
<b>Spanish 1 Law Enforcement</b>	
<b>10-141-115</b>	<b>3 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Students learn basic phrases and questions to carry out law enforcement protocols. The participant will have the basic ability to understand spoken Spanish, obtain basic job related information, identify individuals, time and date of incidents, obtain descriptions, and express commands.	
<b>Spanish 1</b>	
<b>10-802-171</b>	<b>4 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Presents an introductory approach to conversation using everyday work and social situations. This course provides students with the basic vocabulary, grammar, and cultural understanding needed for interacting with Spanish speakers at home and abroad.	

<b>Spanish 2</b> <b>10-802-172</b>	<b>4 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Enables students to advance their conversational skills in realistic work and social environments while further developing cross-cultural insights needed for successful interactions with Spanish-speaking people both at home and abroad.	
<b>Spanish 3</b> <b>10-802-102</b>	<b>3 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
In this continuation of Spanish 2, students develop additional communicative and written skills in real-life situations and gain a better understanding of the Spanish-speaking cultures of the world in relationship to their own.	
<b>Spanish 4</b> <b>10-802-103</b>	<b>3 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
As a continuation of Spanish 3, students will continue to increase vocabulary, refine communicative skills, and further study cultural topics. Principles of grammar are systematically reviewed focusing on the use of the present, past and future tenses.	
<b>German 1</b> <b>10-802-119</b>	<b>3 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Establishes a foundation in the German language presenting everyday situations. It focuses on vocabulary building, basic grammar, word recognition and usage, conversation, and understanding of culture and tradition.	
<b>Italian 1</b> <b>10-802-120</b>	<b>3 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Establishes a foundation in the Italian language presenting everyday situations. It focuses on vocabulary building, basic grammar, word recognition and usage, conversation, and understanding of culture and tradition.	
<b>German 2</b> <b>10-802-126</b>	<b>3 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Builds on a foundation in German 1, presenting the language of everyday situations and focuses on vocabulary expansion, basic grammar, word recognition and usage, conversation, and understanding of culture and tradition.	
<b>Italian 2</b> <b>10-802-180</b>	<b>3 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	
Builds on a foundation in Italian 1, presenting the language of everyday situations and focuses on vocabulary expansion, basic grammar, word recognition and usage, conversation, and understanding of culture and tradition.	
<b>Japanese 1</b> <b>10-802-174</b>	<b>4 Credits</b>
<i>Course Typically offered in Fall/Spring</i>	



Establishes a foundation in Japanese language, focusing on language of common, everyday situations. Expands on vocabulary, basic grammar, word recognition and usage, conversation, and understanding of culture and tradition.		
<b>Japanese 2</b> <b>10-802-175</b>		<b>4 Credits</b>
<i>Course Typically offered in Fall/Spring</i>		
Builds on a foundation in Japanese 1, presenting the language of everyday situations and focusing on vocabulary expansion, basic grammar, word recognition and usage, conversation, and understanding of culture and tradition.		
<b>Spanish and Latin American Cinema</b> <b>10-810-100</b>		<b>3 Credits</b>
<i>Course Typically offered in Fall/Spring</i>		
Explore a selection of compelling Latin American and Spanish films representing a diversity of countries, cultures, communities, identities, time periods, and genres. Analyze cinematic techniques and gain a deeper understanding of the films within their historical, social and political contexts.		

## Definitions

**Accuplacer** – Assessment exam required for admission into many Fox Valley Technical College programs and as a pre-requisite for registration into certain classes.

**Admission application** – A student must submit an admission application in order to gain admission into a Fox Valley Technical College program. Start College Now students are required to apply for Nursing Assistant and EMT-Basic programs. The admission application is available through the MyFVTC account or by visiting [www.fvtc.edu/apply](http://www.fvtc.edu/apply).

**Bennett Mechanical Comprehensive Test** – Assessment exam required for admission to automotive technology programs and as a pre-requisite for certain automotive classes.

**Catalog number** – The eight-digit number that identifies the series of classes for a specific subject. This is the number we will be using to search for Start College Now classes.

**Co-requisite** – A requirement that must be completed either before or at the same time as the course (i.e. another course).

**Pre-requisite** – A requirement that must be completed before registering into the course (i.e. another course, test scores, admission into a program, etc.)

**Semester** – FVTC has three separate semesters per year: spring, summer, and fall. Students are eligible to take courses through Start College Now during the spring and fall semesters.

**Start College Now Application** – Start College Now students need to complete and return this form to their high school before registering for classes.