



YOUTH OPTIONS COURSE GUIDE

2016-17

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 semester.**

Contents

Introduction	3
Youth Options Checklist.....	3
Refund Policy	4
Attendance Policy.....	5
Accuplacer.....	6
Bennett Mechanical.....	6
General Program Information	7
Agriculture, Horticulture & Natural Resources.....	8
Agriculture / Agri-Business / Farm Operations	8
Horticulture	12
Natural Resources Technician	13
Outdoor Power Equipment	14
Business Administration & Finance	15
Accounting.....	15
Banking / Business Administration.....	15
Business Health Services	16
Business Technology	16
Entrepreneurship	18
Technical Communications	19
Construction	19
Electricity.....	19
Culinary & Hospitality	20
Culinary Arts	20
Hotel & Restaurant Management	20
Engineering & Electronic Related Technologies	21
Automated Manufacturing.....	21
Electro-Mechanical Technology	21
Electronic-Related Technologies / Electronics	22
Mechanical Design Technology	24
Health Science	24
Emergency Medical Services	24
General Health	25
Nursing Assistant.....	26
Human Services	26
Alcohol and Other Drug Abuse Services.....	26

Developmental Disabilities Services.....	26
Early Childhood Education	27
Human Services	28
Information Technology	28
Information Technology	28
Software Development/Programming.....	29
Network.....	30
Web Design	31
Help Desk.....	31
Law Enforcement.....	32
Forensic Science	32
Manufacturing	32
Machine Tool Technology	32
Welding	34
Marketing, Sales & Service	36
Interior Design.....	36
Marketing	38
Transportation	38
Auto Body - Chassis & Finish	38
Automotive Technology	39
Combustion Engines.....	40
Transport Trailer Service	42
General Studies.....	43
College Skills	43
Communication Skills	43
Mathematics.....	44
Natural Science.....	46
Social Science	47
Global Studies	50
Global Studies.....	50
Foreign Languages.....	50
Definitions.....	54

Introduction

Youth Options (YO) 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 YO 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 YO students select courses from the YO Course Guide. They attend a mandatory YO registration session and register for classes just like all other college students. YO 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. They are limited to a total of 18 credits completed within the Youth Options program but enjoy great flexibility in selecting courses from the YO Course Guide (not all courses in the YO Course Guide are offered every semester).

While YO 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 YO 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 YO staff. For simple explanations of commonly used terms, students can refer to the definitions included at the end of this course guide.

Youth Options Checklist

- Fill out Youth Options Interest form online at www.fvtc.edu/youthoptions.
- Upon receiving welcome e-mail, follow instructions outlined in e-mail to become familiar with the Youth Options process.
- Check e-mail account and Blackboard regularly for important information regarding Youth Options.
- Meet with your high school counselor to select courses from the Youth Options Course Guide.
- Submit completed PI8700A form to high school by deadline (March 1 for fall classes, October 1 for spring classes).
- Submit transcripts, test scores, or other pre-requisites (as needed).
- Register for college classes at Fox Valley Technical College.

The Youth Options staff is ready to help students, parents, and high school counselors through their academic experience at Fox Valley Technical College. They can be reached via email at youthoptions@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. If more than 60% of the class's potential hours of instruction have been completed, a "WF" grade will be assigned.

Refund Appeals

All refund appeals must be initiated by sending a written request with proper documentation to the Registrar no later than sixty (60) calendar days after the class start date. A refund request made after the 60 day grace period will **not** be accepted and you 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.

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 YO students.

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 Accuplacer web page at <http://www.fvtc.edu/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 is not responsible for payment of this fee. The testing fee is the responsibility of the student.

NOTE: Fox Valley Technical College also accepts ACT scores in place of Accuplacer scores. We will not accept PACT scores. If you have taken the ACT or the Accuplacer at your high school, please make sure your test scores are sent to:

Youth Options
Fox Valley Technical College
1825 N Bluemound Drive
PO Box 2277
Appleton, WI 54912-2277
Email: youthoptions@fvtc.edu
Fax: 920-735-2484

Bennett Mechanical

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 is not responsible for payment of this fee. The testing fee is the responsibility of the student. It is a pre-requisite for certain classes in automotive programs. The following programs also require completion of the BMCT for admission:

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

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, Youth Options provides them the opportunity to complete courses which are applicable to that degree. Their course selections must still be made through the Youth Options Course Guide. **Any courses chosen from outside the Youth Options Course Guide must be paid for by the student.**

To learn the program requirements for a given program, students and counselors should visit 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.

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

Agriculture, Horticulture & Natural Resources

Agriculture / Agri-Business / Farm Operations

Farm Safety & Equipment Operation

10-003-105

1 Credit

Shows the student how to operate a tractor over 20 PTO horsepower, including how to connect and disconnect equipment or equipment parts. Topics include specialized machinery for livestock, toxic environments, agricultural chemicals, blasting, fertilizer and the youth certificate program.

Agriculture Hydraulic Systems

10-003-110

2 Credits

Introduces the student to the fundamentals of fluid power, components, different hydraulic systems, hydraulic schematics and terminology of the hydraulic systems used on modern agriculture mobile equipment. Includes operation of fluid flow on various systems, maintenance and system diagnostics. Students are exposed to the special tools used to test hydraulic systems. The use of these special tools and technical manuals are stressed.

Agriculture Planting Equipment

10-003-120

3 Credits

Provides a comprehensive study of planting equipment. There will be extensive coverage of planting and seeding equipment. Units to be covered will include no-till drills, corn planters and seed metering units. Students will work with the seed metering test stand to rebuild and calibrate the seed meters.

Agriculture Diesel Engine Technology

10-003-135

5 Credits

Provides the knowledge and skills needed to maintain, do adjustments and repair of a diesel engine. Students will learn the different functions of a diesel engine. Use of technical service resources and precision measuring is stressed.

Agriculture/OPE Welding

10-003-166

2 Credits

Prepares students to perform oxyacetylene, arc, MIG and TIG welding procedures. Laboratory activities will provide the student with hands-on practice joining metal with the various methods of welding.

Integrated Pest Management & Weed Identification

10-006-102

3 Credits

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.

Agricultural Marketing

10-006-103

3 Credits

Explores and gives the student an understanding of the basic principles of marketing and the ability to apply these principles to the distribution of farm products.

Crop Scouting Training

10-006-109

3 Credits

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

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.

Dairy/Livestock Ration Balance

10-006-114

3 Credits

Teaches students the mechanics of balancing livestock rations using the National Research recommendations and other information. Computers will be used to develop rations. The makeup and functions of the nutrients essential for livestock will be discussed in the preparation of dairy and beef rations. The student will complete a cost analysis of all rations.

Agricultural Crop Production

10-006-119

3 Credits

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.

Introduction to Agribusiness

10-006-133

3 Credits

Provides an overview of agricultural production, manufacturing, distribution, utilization and consumption in the United States, with an emphasis on Wisconsin agribusiness. Employment opportunities are explored. Business organization, operation and management are also covered.

Agribusiness Sales

10-006-134

3 Credits

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

Animal Science Fundamentals

10-006-140

3 Credits

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.	
Plant Science 10-006-141	3 Credits
Provides fundamental knowledge of plant components and their functions. Topics include pollinating and propagating plants, germinating seeds, plant nutrients, and factors affecting photosynthesis, respiration, and transpiration. Students will experience plant components and their functions through the completion of hands-on activities.	
Introduction to Soils 10-006-143	3 Credits
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.	
Dairy/Livestock Herd Health 10-006-145	3 Credits
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
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.	
Dairy/Livestock Records Management 10-006-149	3 Credits
Acquaints the students with herd management programs using traditional and computerized herd record keeping systems. Students will have hands-on experience with the latest available programs used in dairy record keeping.	
Dairy/Livestock Artificial Insemination & Records Management 10-006-164	2 Credits
Teaches students about the anatomy and physiology of cattle reproduction and artificial procedures of the bovine species. Topics include estrous cycle & reproductive records management, nutrition, animal fertility, and herd health. There will be insemination practice on live animals and hands-on computer training with Dairy Comp 305 and PCDART.	
Computers, Farm 31-080-305	1 Credit
Designed to allow students to operate and explore the utilization of computers and computer software for production agriculture application. Computer use and the latest in agricultural software will be emphasized.	

<p>Animal Nutrition, Basic 31-080-350 1 Credit</p> <p>Acquaints the student with the nutrients essential for livestock growth, production and reproduction. The anatomy and physiology of digestion and absorption are discussed for single stomach and ruminant animals, with the emphasis on dairy cattle.</p>
<p>Soil Principles and Fertilization 31-080-353 1 Credit</p> <p>Acquaints the student with the physical, chemical and biological properties of soil in relation to fertility and good soil management. The students will sample soils on their farms and identify fertility needs from the soils test report. Nutrient management will be discussed.</p>
<p>Tractor Maintenance Overview 31-080-355 1 Credit</p> <p>Provides to the student basic diesel engine system operation and maintenance skills and knowledge to maintain the fuel, cooling and lubrication systems on tractors and other agricultural machinery.</p>
<p>Agricultural Building Construction 31-080-356 1 Credit</p> <p>Acquaints the student with farm construction skills. This course focuses on the selection of building materials and on the design, cost and placement of farm buildings.</p>
<p>Advanced Tractor Maintenance 31-080-357 1 Credit</p> <p>Provides the students with knowledge and skills needed to maintain and service the electrical systems associated with farm machinery. Students will perform basic service on the different electrical systems.</p> <p><i>Pre-requisite: Tractor Maintenance Overview (31-080-355)</i></p>
<p>Agricultural Hydraulics 31-080-394 1 Credit</p> <p>Is designed to give the student a comprehensive knowledge of hydraulic systems and their use on farm equipment. Emphasis is placed on how the systems and components work in addition to how they are designed, operated and serviced.</p>
<p>Welding Repair and Maintenance 31-080-395 1 Credit</p> <p>Emphasizes the use of M.I.G., arc and the oxyacetylene welding equipment in the repair and maintenance of farm machinery. The student will learn the basics of each of the systems. The expansion and contraction of metals, removal of bearings, and use of special rods and equipment will be emphasized.</p>
<p>Forage & Grain Harvesting Equipment 31-080-396 1 Credit</p>

Provides students with a comprehensive knowledge of forage and grain harvesting equipment. Emphasis is on design, operation, adjustments and maintenance of the equipment. Farm machinery management and operational expenses will also be stressed.

Horticulture

Introduction to Horticulture

10-001-111

3 Credits

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.

Horticulture Soils

10-001-112

3 Credits

Explores the properties of soils and applies them to horticultural uses as a growing medium and as an engineering base for landscaping.

Interiorscaping & Greenhouse Management

10-001-120

3 Credits

Studies the identification, characteristics and physical requirements of interior plants. Also studies the operation of a greenhouse to include growing, soils, pest control, and basic procedures for operating and maintaining a greenhouse.

Turf Management & Irrigation Systems

10-001-130

2 Credits

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.

Woody Ornamental Plant ID

10-001-158

3 Credits

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.

Survey of Herbaceous Plants

10-001-159

3 Credits

Studies commonly used annual, bulb and perennial herbaceous plants, with an emphasis on their use in the landscape, culture and care.

Landscape Plants, Maintenance of

10-001-170

3 Credits

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.

Landscape Design 1**10-001-174****3 Credits**

Focuses on developing a residential landscape plan using such outdoor room concepts as function, design principles and composition. The course also includes drafting, site analysis and graphics.

Natural Resources Technician**Exploring Natural Resources****10-057-104****4 Credits**

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.

Ecology**10-057-109****2 Credits**

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.

Co-requisite: Written Communication (10-801-195)

Forest Recreation Environmental Education**10-057-131****3 Credits**

Emphasis will be creating and presenting environmental education activities to various audiences. The design and delivery of environmental curriculum is the focus and will be augmented with additional public presentations and volunteering at area environmental centers. Individual and group laboratory projects and presentations are required.

Pre-requisites: Exploring Natural Resources (10-057-104); Ecology (10-057-109); Written Communication (10-801-195)

Soil and Water Conservation**10-057-134****3 Credits**

Examines the physical, chemical and biological properties of soil in relation to water and wind erosion. The identification, planning and use of soil and water conservation practices are examined, and students study the relationship of soil fertility to conservation and management.

Pre-requisites: Exploring Natural Resources (10-057-104); Ecology (10-057-109); NR Common Topics (10-057-143); Written Communication (10-801-195); Math for Common Topics (10-804-117)

Plant Identification**10-057-140****1 Credit**

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.

Natural Resources Common Topics**10-057-143****2 Credits**

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.

Pre-requisite: Exploring Natural Resources (10-057-104). Co-requisite: Math for Common Topics (10-804-117)

Outdoor Power Equipment**Small Engines, Introduction to****10-461-102****1 Credit**

Provides the student with theory and hands-on experience with gas outdoor power equipment. Fuel, cooling, lubrication and DC electrical systems will be emphasized.

Four Stroke Small Engines**10-461-112****3 Credits**

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.

OPE Hydraulics and Drivelines**10-461-113****3 Credits**

Focuses on the equipment used in grounds keeping, landscaping and maintenance of turf grass. Belt, gear, and hydrostatic transaxles and drivelines for lawn mowers, tillers, snowblowers, garden tractors, zero-turn mowers and compact tractors are included in this course. Safety glasses are required.

OPE Operation & Maintenance**10-461-114****2 Credits**

Focuses on maintaining and operating skid steer loads, forklifts, till-handlers, turf mowing equipment and landscape equipment. The course provides operators' certification. Safety glasses are required.

OPE Handheld Power Units**10-461-115****3 Credits**

Emphasizes the repair of two-cycle and small four-cycle 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. Safety glasses are required.

OPE DC Electrical Systems**10-461-116****3 Credits**

Covers Ohm's law and electrical theory, operation and troubleshooting methods for batteries, starting circuits, charging circuits and accessories. Safety glasses are required.

OPE Diesel Engine Systems**10-461-118****3 Credits**

Provides technicians with skills and knowledge of gas and diesel engine theory, fuel, electrical, coding and lubrication systems.

OPE Customer Service & Sales**10-461-122****2 Credits**

Focuses on the importance of the customer and develops customer service skills. Applies retail sales principles and emphasizes the importance of knowing the product's features, prospecting clients, presenting the product and closing the sale.

Parts and Service Management**10-461-141****3 Credits**

Utilizes computer software programs such as PartSmart and Web-based programs to learn how to look up parts and create parts invoices. Includes methods of merchandizing products for increased sales, and utilizes a computer software, DealerWin, to develop service orders, invoice repair orders and develop a customer data base.

Business Administration & Finance**Accounting****Accounting, Principles of****10-101-107****3 Credits**

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.

Financial Accounting 1**10-101-180****4 Credits**

Prepares students to analyze, record, summarize and interpret accounting information. The course focuses on business transactions, financial statements, merchandising, inventory, special journals, internal controls, receivables, plant assets and payroll.

Pre-requisite: ACCPL Reading >= 54 & Arithmetic >= 65 OR ACT (Read/Math) >= 18 OR Program Prep

Banking / Business Administration**Business Law 1****10-102-103****3 Credits**

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
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.	
Money and Banking	
10-114-124	3 Credits
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
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.	
Stock and Bond Investments	
10-114-176	3 Credits
Provides an overview of the problems of investing; the stock, bond and mutual fund investment vehicles available; and the markets in which investments are traded.	
Business Health Services	
Intro to Medical Administrative Careers	
10-160-100	1 Credit
Introduces various aspects of medical administrative careers. Explores a variety of topics including career expectations, future employment opportunities and current employment trends.	
Business Technology	
MS Office Suite, Introduction	
10-103-120	2 Credits
Provides an opportunity to gain technical skills employers are seeking, by using the features in Outlook, Word, Excel, and PowerPoint. Through hand- on course work, students will be able to integrate Word, Excel and PowerPoint.	
Microsoft Word Introduction	
10-103-180	1 Credit
Presents the basic features of Microsoft Word 2016. Learners create, edit, and save documents, format characters, paragraphs, pages and documents, and apply special features when formatting.	

Microsoft Excel Introduction 10-103-181	1 Credit
Presents basic features of Microsoft Excel 2016. Learners develop basic skills to create, edit, and format worksheets; use functions; set print options; add visual elements; work with multiple worksheets, tables, and other file formats; and integration with Word.	
Microsoft Access Introduction 10-103-182	1 Credit
Presents the basic features of Microsoft Access 2016. Learners enter and edit data in tables, create and apply queries, produce reports and forms, import and export data, and integrate Access data with other programs.	
Microsoft PowerPoint Introduction 10-103-183	1 Credit
Presents the basic features of Microsoft PowerPoint 2016. Learners create, edit and animate presentations, work with tables, charts, graphics, and custom shows, and learn to integrate, share and protect presentations.	
Web Technologies 10-106-101	2 Credits
Provides a basic understanding of the Web as well as the tools used to create Web pages, blogs and other features. Reviews social and business Web tools and components.	
Office Desktop Publishing: MS Publisher 10-106-102	1 Credit
Develops skills for working with different types of office documents such as brochures, newsletters and reports. Introduces page layout, graphics, styles and fonts.	
Keyboarding for PC Users 10-106-107	1 Credit
Introduces keying by touch. It emphasizes control of the alphabetic keys and the numeric keypad. Practice drills to improve keying skills are included.	
Business Writing and Formatting 10-106-108	3 Credits
Focuses on development of spelling, grammar, punctuation and formatting rules as applied to business documents in both print and digital mediums.	
<i>Pre-requisite: ACCPL Reading >= 54 & Sentence >= 83 OR ACT (Read/English) >= 18 OR Program Prep</i>	
Keyboarding Speed Development 10-106-112	1 Credit
Focuses on improving typing speed and accuracy through the use of skill-building software.	

Effective Business Practice**10-106-118****3 Credits**

Provides hands-on experience and practice using a variety of business communication techniques providing students with knowledge, poise, tact and the skills to conduct themselves in the business world with confidence. Included in the course is The Seven Habits of Highly Effective People developed by Stephen Covey.

Business Technology Essentials**10-106-120****2 Credits**

Introduces computers and information processing including terminology, hardware, software, networks, Internet, security and the computer marketplace. Major topics include how to effectively browse the Internet and use Microsoft Outlook's electronic mail, calendar, contacts, tasks and journal folders.

Meeting and Event Management Fundamentals**10-106-140****3 Credits**

Focuses on planning a successful meeting/event. Topics include conducting the planning activities, managing the finances, promoting the meeting/event, facilitating the on-site needs, analyzing contracts, arranging travel and transportation needs, and conducting follow-up activities while communicating effectively with all stakeholders.

Business Relationship Development**10-106-160****2 Credits**

Provides students with opportunity to develop and analyze networking and business relationships. Includes examination of the networking process, tools to facilitate and enhance networking opportunities and networking communication development.

Office Fundamentals**10-106-166****3 Credits**

Focuses on the development of fundamental office skills. Students will gain skill in general office duties, records retention and maintenance, application of office technologies, verbal and written communication, and customer service.

Practical Office Software**10-106-183****1 Credit**

Explore how to use Microsoft Office software in the office. Focus will be on basic features and concepts associated with the software.

Entrepreneurship**Entrepreneurial Venture – Your Business Plan****10-145-100****3 Credits**

Focuses on the business planning process of business concept development through financial projections and planning. This is a blended-learning course designed to teach students how to research, develop and write detailed start-up business plans which can be used to create successful businesses. The blended-learning environment combines the flexibility of Internet-based e-learning with the benefits of face-to-face instruction.

Pre-requisite: Introduction to Entrepreneurship (10-145-104)

Entrepreneurial Mindset

10-145-101

1 Credit

Inspires and engages participants in fundamental concepts of an entrepreneurial mindset and the unlimited opportunities it can provide. Empowers learners through entrepreneurial thinking and immerses them in entrepreneurial experiences that enable them to develop entrepreneurial skills.

Entrepreneurship, Introduction to

10-145-104

3 Credits

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.

Technical Communications

Introduction to Professional Communications

10-699-112

3 Credits

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.

Co-requisite: Written Communication (10-801-195)

Introduction to Social Media

10-699-121

1 Credit

Introduces social media, such as Facebook, Twitter, LinkedIn and other new media, as used by professional communicators. This course will stress how to integrate social media for business purposes and apply quality marketing/public relations strategies.

Construction

Electricity

First Aid/CPR, Principles and Practices

10-531-101

1 Credit

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 an FVTC First Aid certificate upon course completion.

Culinary & Hospitality

Culinary Arts

Food Production, Introduction to

10-316-101

3 Credits

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

Pre-requisite: ACCPL Reading >= 54 & Sentence >= 83 OR ACT (Read/Sent) >= 18 OR Program Prep

Culinary Fundamentals

10-316-110

3 Credits

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 taken during the first semester.

Pre-requisite: ACCPL Reading >= 54 & Sentence >= 83 OR ACT (Read/Sent) >= 18 OR Program Prep

Sanitation for Food Service Operations

10-316-118

1 Credit

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

Pre-requisite: ACCPL Reading >= 54 & Sentence >= 83 OR ACT (Read/Sent) >= 18 OR Program Prep

Nutrition for Culinary Arts

10-316-119

1 Credit

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.

Pre-requisite: ACCPL Reading >= 54 & Sentence >= 83 OR ACT (Read/Sent) >= 18 OR Program Prep

1st Aid/CPR – Principle & Practice – Culinary Arts

10-531-101A

1 Credit

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 an FVTC First Aid certificate upon course completion.

Hotel & Restaurant Management

Hospitality Sales and Promotion

10-109-125

2 Credits

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.

Pre-requisite: ACCPL Reading >= 54 & Sentence >= 83 OR ACT (Read/Sent) >= 18 OR Program Prep

Customer Service Management

10-109-126

3 Credits

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.

Pre-requisite: ACCPL Reading >= 54 & Sentence >= 83 OR ACT (Read/Sent) >= 18 OR Program Prep

Introduction to Hospitality

10-109-152

3 Credits

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.

Engineering & Electronic Related Technologies

Automated Manufacturing

Robotics

10-628-112

2 Credits

Establishes a firm foundation in industrial robotics. The major electronics and mechanics of common robots are studied. Robot types, typical applications and end-of-arm tooling is presented as well as the programming of pick and place servo robots.

Visual BASIC for Industrial Applications

10-628-133

2 Credits

Introduces computer programming using the Microsoft Visual Basic program. Students design and construct industrial VB programs that are used in industrial applications.

Electro-Mechanical Technology

Electronic Shop Practices

10-620-169

1 Credit

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.

Robotics 1

10-620-197

1 Credit

Introduces the terminology, movements and the physical construction of the robot and the applications for which they are used. Basic programming is also covered. Students become familiar with the equipment in laboratory activities. Instructor permission required.

Robotics 2
10-620-198

1 Credit

Requires students to write programs that enable a robot to perform various operations. Laboratory activities are completed to verify the programs.

Co-requisite: Robotics 1 (10-620-197)

Electronic-Related Technologies / Electronics

Digital Electronics 1
10-605-130

1 Credit

Introduces digital electronics including Boolean, the operation of logic gates, and the theory of combination logic circuits. Laboratory activities are performed to verify the theory.

Digital Electronics 2
10-605-131

1 Credit

Examines data manual usage. This course introduces programmable logic devices and Karnaugh mapping. It also covers encoders, decoders, multiplexers, binary adders and parity circuits. Laboratory activities are performed to verify the theory.

Co-requisite: Digital Electronics 1 (10-605-130)

Digital Electronics 3
10-605-132

1 Credit

Covers circuit reduction techniques such as Boolean Algebra, Karnaugh Mapping, Sum of Products, etc. Laboratory activities are performed to verify the theory.

Co-requisite: Digital Electronics 2 (10-605-131)

Digital Electronics 4
10-605-133

1 Credit

Covers counters, reviews Sum-of-Products and Product of Sums and more in-depth coverage of Karnaugh maps. This course utilizes a group based final project.

Co-requisite: Digital Electronics 3 (10-605-132)

Embedded Programming
10-605-145

3 Credits

Introduces students to embedded computer systems through exploration of microcontroller operation, architecture and programming. Students will lay the groundwork for future course and electronic projects while experimenting with programming language concepts and basic interfacing.

CAD for Electronics 10-605-156	1 Credit
Introduces students to computer-aided design (CAD) techniques used in the electronics field. Students learn the basics of the AutoCAD software, including the draw, modify, dimension and plotting sets of commands. Students acquire the skills needed to create an electronics symbols library and to draw electronic schematics.	
Electronic Construction Techniques 10-605-163	1 Credit
Introduces the use of common tools for constructing electronic devices. The safe use and application of hand and power tools is practiced through construction projects. Soldering techniques, both through-hole and surface mount, are studied in detail.	
Digital Communications 10-605-170	1 Credit
Focuses on communication protocol and bus structures such as RS232, 420, 485, IEEE 488 (GPIB), IEEE 1492 (Firewire) and 12C. PCM, PAM, FSK, time, space and frequency division multiplexing are also covered. Synchronous and asynchronous characteristics and application, data compression and encryption, and error checking schemes are introduced, and industrial networking topics are discussed.	
DC Circuits 1 10-660-110	1 Credit
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.	
<i>Co-requisite: College Technical Math 1 (10-804-115) or College Technical Math 1A (10-804-113) or Industrial Maintenance Math (31-804-308)</i>	
DC Circuits 2 10-660-111	1 Credit
Covers basic parallel and series/parallel circuits and their properties. Magnetism and devices such as relays and solenoids are also presented. Laboratory activities are performed to verify the theory.	
<i>Co-requisite: DC Circuits 1 (10-660-110)</i>	
DC Circuits 3 10-660-112	1 Credit
Examines the theory, application and design of series/parallel circuits such as loaded and unloaded voltage dividers and Wheatstone bridge. Specific resistor characteristics are covered. Instantaneous voltage and current values for RC and RL circuits are introduced. This course includes in-depth theory of inductors. Capacitors with series and parallel applications and various types of each component. Laboratory activities are performed to verify the theory.	
<i>Co-requisite: DC Circuits 2 (10-660-111)</i>	
Technical Software Essentials 10-660-181	1 Credit
Covers Microsoft related software. This will include word processing with Microsoft Word, spreadsheets with Microsoft Excel, presentation software with Microsoft PowerPoint and databases with Microsoft Access.	

Mechanical Design Technology

Technical Drafting 1

10-606-113

5 Credits

Covers concepts from the initial design process to the generation of Computer Aided Drafting (CAD) documents that precisely and graphically describes a part. Students will learn common industry drafting practices as well as CAD standards and guidelines. The course will lay down the proper groundwork for the Technical Drafting 2 course.

Co-requisite: Math-Technical Intermediate (10-804-126) or Math-Technical 1 (10-804-121) or College Tech Math 1 (10-804-115) or College Tech Math 1B (10-804-114)

AutoCAD, Introduction to

10-606-114

1 Credit

Covers the very basics of AutoCAD - introduction to the user interface, basic drawing commands, basic editing commands, and basic viewing commands. This course will give the student a comfort level for working within the AutoCAD environment and the knowledge needed for more advanced CAD courses offered within the various degree programs.

Technical Drafting 2

10-606-117

4 Credits

A continuation of Technical Drafting 1. Topics include descriptive geometry, intersections and developments, and working drawings. CAD experience is required.

Pre-requisite: Technical Drafting 1 (10-606-113) or Technical Drafting 1B (10-606-113B); Co-requisites: Math-Technical 2 (10-804-122) or Math-Technical Advanced (10-804-127) or College Tech Math 2 (10-804-116).

Intermediate AutoCAD

10-606-127

1 Credit

Builds upon the groundwork laid down in either Intro to AutoCAD or Technical Drafting 1. Students will learn more about drawing commands, editing commands, properties of objects, dimensioning and printing.

Co-requisite: AutoCAD, Introduction to (10-606-114) or Technical Drafting 1 (10-606-113), or Technical Drafting 1A (10-606-113A).

Health Science

Emergency Medical Services

First Responder

10-531-104

2 Credits

Teaches and evaluates the knowledge/skills needed to respond to medical or trauma situations. It includes AED, Combitube, Epi-Pen, Spinal Immobilization, and skills needed to assist the ambulance crew. This course meets Wisconsin and National licensure guidelines. Students receive FVTC First Responder certificate.

First Responder with Healthcare Provider CPR**10-531-105****2 Credits**

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.

Emergency Medical Technician - Basic**10-531-169****5 Credits**

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. Department consent required.

Pre-requisite: Admission to the EMT-Basic or Fire Protection programs and Completion of the EMT Basic Checklist. Checklist completion is tracked via the EMTB student group.

Emergency Medical Technician – Basic Part A**10-531-169A2****2 Credits**

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. Department consent required.

Pre-requisite: Admission to the EMT-Basic or Fire Protection programs and Completion of the EMT Basic Checklist. Checklist completion is tracked via the EMTB student group.

Emergency Medical Technician – Basic Part B**10-531-169A3****3 Credits**

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. Department consent required.

Pre-requisite: Admission to the EMT-Basic or Fire Protection programs and Completion of the EMT Basic Checklist. Checklist completion is tracked via the EMTB student group.

General Health**Medical Terminology****10-501-101****3 Credits**

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.

Human Diseases for Health Care Professions**10-501-182****3 Credits**

Focuses on the common diseases of each body system as encountered in all types of health care settings by health information professionals. Emphasis is placed on understanding the etiology (cause), signs and symptoms, diagnostic tests, and treatment (including pharmacologic) of each disease.

Health Careers, Introduction to**10-501-190****1 Credit**

Examines health-related careers. Educational preparation, job responsibilities and appropriate personal attributes will be surveyed in order to assist participants in career decision planning. Health career programs which Fox Valley Technical College offers will be highlighted.

Nursing Assistant**Nursing Assistant****30-543-300****3 Credits**

Prepares learners for entry-level employment as assistants to a licensed nurse in a hospital, nursing home, home health agency or community-based residential facility. Covers simple nursing tasks such as bathing and feeding patients, making beds, and taking vital signs.

Pre-requisite: 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**Alcohol and Other Drug Abuse Services****Alcohol and Drugs, Risk Reduction****10-550-101****1 Credit**

Provides a comprehensive, systematic approach to reduce the risk of people of any age developing problems related to alcohol and drug abuse. The health, social, legal, occupational and family problems that result from alcohol and drug abuse are examined.

Developmental Disabilities Services**Developmental Disabilities, Introduction to****10-545-100****2 Credits**

Discusses the nature of the developmentally disabled population. A brief history of program development and government involvement is covered. In addition, an overview of the roles and responsibilities of developmental disability service providers is included.

American Sign Language**10-545-116****3 Credits**

Provides a foundation in sign language skills to facilitate communication with the deaf and hard of hearing. Pertinent issues are discussed to broaden an understanding of the deaf culture.

Early Childhood Education

Movement and Music for Children

10-307-111

3 Credits

Presents movement activities to help children develop sensory awareness, songs and rhythms to use in developing skills and concepts, and ways to help children have fun and learn through movement and music.

Infant & Toddler Development

10-307-151

3 Credits

Teaches infant toddler development as it applies to an early childhood education setting. Course competencies include: integrate strategies that support diversity and anti-bias perspectives; analyze development of infants and toddlers (conception to three years); correlate prenatal conditions with development; summarize child development theories; analyze the role of heredity and the env. and more.

Health, Safety & Nutrition

10-307-167

3 Credits

Examines the topics of health, safety and nutrition within the context of the early childhood educational setting. Course competencies include: integrate strategies that support diversity and anti-bias perspectives; follow governmental regulations and professional standards as they apply to health, safety and nutrition; provide a safe early childhood program and more.

Art, Music & Language Arts

10-307-178

3 Credits

Focuses on beginning level curriculum development in the specific content areas of art, music and language arts. Course competencies include: integrate strategies that support diversity and anti-bias perspectives; examine the critical role of play; establish a developmentally appropriate environment; develop activity plans that promote child development and learning and more.

Child Development

10-307-179

3 Credits

Examines child development within the context of the early childhood education setting. Course competencies include: analyze social, cultural and economic influences on child development; summarize child development theories; analyze development of children ages three through eight; summarize the methods and designs of child development research and more.

Children w/ Differing Abilities

10-307-187

3 Credits

Focuses on the child with differing abilities in an early childhood education setting. Course competencies include: integrate strategies that support diversity and anti-bias perspectives; provide inclusive programs for young children; apply legal and ethical requirements including, but not limited to, ADA and IDEA and more.

Family & Community Relationships

10-307-195

3 Credits

Examines the role of relationships with family and community in early childhood education. Course competencies include implement strategies that support diversity and anti-bias perspectives when working with families and community; analyze contemporary family patterns, trends and relationships; utilize effective communication strategies; establish ongoing relationships with families and more.

Human Services

Stress Management for Health Professions

1 Credit

10-501-113

Focuses on the awareness of stress and how people respond to stress physically, emotionally and intellectually. Lifestyle stressors and prevention strategies are identified. Participants design a personal plan to assist in their stress-coping skills.

Human Assertiveness

1 Credit

10-520-100

Assists individuals to cope effectively with the conflicts experienced in daily living. Topics include fight/flight assertiveness, human rights, manipulation, assertive persistence, authority situations, equal relationships, social assertiveness, and work effectiveness and assertiveness.

Information Technology

Information Technology

Web Tools

2 Credits

10-107-137

Introduces advanced concepts in word processing, spreadsheet, database and presentation software along with integration of these applications. Database concepts are covered including the design, creation and use of simple Access databases. Research strategies for the Internet are also covered.

Microcomputer Applications

2 Credits

10-107-150

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.

IT Concepts

2 Credits

10-107-184

Provides students with a foundation in information technology and the use of information systems in today's business environment. Students explore fundamental computer concepts and terminology of the World Wide Web, e-mail, emerging technologies, hardware and software components and devices, programming languages, network basics, operating systems, and ethics.

IT Career Exploration 10-107-187	1 Credit
Acquaints students with career options and related job skills, salaries and employment trends in the information technology field. Familiarizes them with the IT program degrees offered at Fox Valley Technical College.	
Linux, Introduction to 10-150-147	2 Credits
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.	
Emerging Technologies and Trends 10-154-101	3 Credits
Explores the acquisition and support roles of PC peripheral technologies. Learn to use different learning methodologies to develop and present a Portfolio of Assessment. Through lectures, demonstrations and hands-on applications, students examine file formats, digital imaging (cameras, scanners and video), printer technologies, PDAs, storage devices, sound technologies and displays.	
Software Development/Programming	
Systems Analysis 10-107-158	3 Credits
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.	
<i>Pre-requisite: C# Introduction to Programming (10-152-111) OR C# Intermediate Programming (10-152-116)</i>	
C# Introduction to Programming 10-152-111	3 Credits
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
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.	
<i>Pre-requisite: C# Introduction to Programming (10-152-111) OR C# Intermediate Programming (10-152-116) OR JavaScript, Introduction to (10-152-117)</i>	
C# Intermediate Programming 10-152-116	3 Credits

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.

Pre-requisite: C# Introduction (10-152-111) OR Computer Programming C++ (10-152-114).

JavaScript

10-152-117

3 Credits

Teaches basic concepts of programming using JavaScript and XHTML languages. Focuses on embedding JavaScript in HTML, program control logic and introduces object-oriented programming.

Pre-requisite: Web Development Using HTML (10-152-120) or not enrolled in an IT program

Data Access for Programmers

10-152-168

3 Credits

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).

Network

Network Cabling

10-150-115

2 Credits

Examines structured premises cabling systems, industry standards, media characteristics, connectors, transmission, electrical concepts, safety, pulling and terminating cable, and testing cable.

Network Infrastructure 1

10-150-116

3 Credits

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.

Windows Server

10-150-156

3 Credits

Covers Microsoft Windows Server 2008 administration including server hardware and software, Active Directory, file resources, printers, disk resources, Web resources, DNS, DHCP, Remote Access Services, and virtualization. Monitoring and troubleshooting server resources are also examined. Extensive hands-on activities are included.

Pre-requisite: Desktop Management (10-154-107) OR PC Support (10-154-104) OR instructor approval

Network Essentials

10-150-162

2 Credits

Provides an introduction to networking theory and technologies, including the basics of communication, common protocols, the OSI model, network topologies, local network media, wide area networks, network devices, and networking tools. It focuses on understanding how and why networks work and includes considerable hands-on troubleshooting exercises.

Web Design

Web Graphics, Introduction to 10-152-105

3 Credits

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

Learn CSS structure and rules to create tableless layouts, using relative, fixed or float position techniques, style and size fonts, create Web site navigation, create accessible Web sites, and work with CSS browser capability.

Pre-requisite: Web Graphics, Introduction to (10-152-105) AND HTML (10-152-120)

HTML 10-152-120

2 Credits

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) as well as an introduction to forms.

Help Desk

IT Customer Service Skills 10-154-102

2 Credits

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.

Help Desk Concepts 10-154-103

4 Credits

Introduces techniques used to install software, document software installations and how to train end-users. Explains basic concepts and implementation of a training plan. Also presents an overview of help desk operations. Students gain a better understanding of how people, processes, technology and information affect the typical help desk. 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.

Advanced Desktop Management 10-154-105

2 Credits

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.

Co-requisite: Desktop Management (10-154-107) or PC Support (10-154-104)

Desktop Repair and Maintenance

10-154-106

2 Credits

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. Advanced PC operating system concepts are also covered.

Co-requisite: Desktop Management (10-154-107) or PC Support (10-154-104)

Desktop Management

10-154-107

2 Credits

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.

Law Enforcement

Forensic Science

Laboratory Methods for Forensic Science

10-806-120

1 Credit

Introduces scientific methods used in a laboratory. Emphasis is on general laboratory safety and specific precautions for working safely with chemical or biological materials. Proper techniques in documentation will be practiced. The learner will become familiar with identification of laboratory equipment and become proficient at laboratory measurements.

Manufacturing

Machine Tool Technology

Metallurgy

10-420-111

2 Credits

Introduces ferrous and nonferrous metals. The properties and behaviors of these metals are considered in regard to their application. Participants test the microscopic structure of the metals with respect to their properties. Common heat-treating methods are used to change the properties of the metal.

Manufacturing Processes, Cold-Machining

10-420-145	2 Credits
Covers the basic machining processes used to cut, form and shape materials to desired forms, dimensions and surface finishes. This course examines metal-cutting machines, cutting tools and workholding devices including jigs and fixtures. Metal stamping and forming processes are also reviewed.	
Manufacturing Techniques, Cold	
32-420-314	1 Credit
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
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.	
<i>Pre-requisite: ACCPL Arithmetic >= 65 OR ACT Math >= 18 OR Math for the Trades (31804307) with a C or better OR Program Prep and ACCPL Reading >= 54 OR ACT Read >= 18 OR Program Prep</i>	
Measurement & Benchwork 2	
32-420-332	3 Credits
Continues to build 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 positions in an industrial plant.	
<i>Pre-requisite: ACCPL Reading >= 54 OR ACT (Read) >= 18 OR Program Prep; ACCPL Arithmetic >= 65 OR ACT (Math) >= 18 OR Program Prep OR Math for the Trades (31804307) with a C or better; Co-requisite: Measurement & Benchwork 1 (32420331)</i>	
Engine Lathe 1	
32-420-333	3 Credits
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>Pre-requisite: ACCPL Read >= 54 & Arithmetic >= 65 OR ACT (Read) >= 18 & ACT (Math) >= 18 OR Program Prep; Co-requisite: Measurement & Benchwork 2 (32-420-332)</i>	
Engine Lathe 2	
32-420-334	3 Credits
Continues to introduce 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>Pre-requisite: ACCPL Read >= 54 & Arithmetic >= 65 OR ACT (Read) >= 18 & ACT (Math) >= 18 OR Program Prep; Co-requisite: Engine Lathe 1 (32-420-333)</i>	

Blueprint Reading, Basic 32-420-350	1 Credit
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.	
Blueprint Reading, Advanced 32-420-353	1 Credit
Covers advanced print reading including geometric dimensioning & tolerancing, welding, and assembly prints.	
Welding	
Manufacturing Processes, Hot-Welding 10-457-103	2 Credits
Introduces the hot-welding processes used in industry. Students examine the manufacturing of steel, heat treating, foundry work, casting, rolling, forging, extrusion and welding.	
Cutting Processes 10-457-161	2 Credits
Covers laser cutting, abrasive water jet cutting, oxy-fuel cutting, plasma arc cutting and air-carbon arc cutting. Individual parts are produced using computerized and manual equipment. The parts may be joined, by welding, to complete an assembly. Students work in a team environment to complete an assignment.	
<i>Pre-requisites: ACCPL Arith \geq 65 OR ACT Math \geq 18 OR Program Prep, Weld Print Read, Weld Symbols, GMAW Tech 1, GMAW Tech 2, FCAW Tech, GTAW Tech, and Basic Robotic Arc Weld; Co-requisites: 2D/3D CAD Model for Welders OR Welding Shop Drawings.</i>	
Welding & Metal Fab Intro & Safety 10-621-105	1 Credit
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.	
Weld Print Reading 10-621-108	1 Credit
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>Co-requisite: Weld/Metal Fab Intro & Safety (10-621-105)</i>	
Weld Symbols 10-621-114	1 Credit
Teaches students to interpret detailed weld symbols using the American Welding Society standard.	

Co-requisite: Weld/Metal Fab Intro & Safety (10-621-105)

Welding Metallurgy

10-621-116

3 Credits

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.

SMAW Techniques 1

10-621-121

2 Credits

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.

Co-requisite: Must purchase AWS Handbook by enrolling in catalog number 94-621-001.

SMAW Techniques 2

10-621-122

2 Credits

A continuation of SMAW Techniques 1. Students will complete lab exercises from SMAW Techniques 1. The student will be able to thoroughly understand a written welding procedure. Emphasis will be placed on the AWS D1.1 welding code. Upon completion of this course, the student will be able to weld in all positions without a backing plate on both V-Groove plate and pipe.

Pre-requisite: SMAW Techniques 1 (10-621-121)

GMAW Techniques 1

10-621-123

2 Credits

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.

Co-requisite: Must purchase AWS Handbook by enrolling in catalog number 94-621-001.

GMAW Techniques 2

10-621-124

2 Credits

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.

Pre-requisite: GMAW Techniques 1 (10-621-123)

FCAW Techniques

10-621-125

2 Credits

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.

Co-requisite: Must purchase AWS Handbook by enrolling in catalog number 94-621-001.

Marketing, Sales & Service

Interior Design

Fundamentals of Design

10-304-110

3 Credits

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.

Basic Interior Design

10-304-125

3 Credits

Focuses on the basic elements, materials, and mathematics of interior design. Topics include furniture arranging and the treatment of windows, walls and floors.

Color Theory

10-304-127

3 Credits

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.

Commercial CAD

10-304-128

2 Credits

Introduces the principles of computer-aided design and planning. Students develop floor plans and design workstations and open office systems.

Prerequisite: Drafting for Interior Design (10-304-131) OR Drafting Skills for Interiors (10-304-167) OR are not currently pursuing a degree

Textiles

10-304-129

3 Credits

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.

Business Principles for Interior Design

10-304-135

1 Credit

Presents the business aspects of a career in interior design. Topics include business forms, billing procedures and business setup.

History of Furniture

10-304-144

3 Credits

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.

<p>Computer Basics for Design 10-304-150 1 Credit</p> <p>Introduces interior design software. This course covers computer hardware, printers, data storage materials and using the mouse. Students create and save design files and folders, plot or print, and do page setup using desktop icons, menus, toolbars and basic Windows functions.</p>
<p>Flooring 10-304-152 1 Credit</p> <p>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.</p>
<p>Sketching for Interior Design 10-304-164 1 Credit</p> <p>Drawing exercises will include various approaches to perspective. The visual learner will gain understanding of perspective through methods geared toward drawing what you see. The graphic or analytical learner will use a method of calculated use of points and lines. Timed exercises will be used to increase confidence in freehand drawing skills.</p>
<p>SketchUp 10-304-165 1 Credit</p> <p>Explores the use of the Google SketchUp software for creating virtual 3-D models of architectural elements and interior spaces. Using various design, rendering, and visualization features available in the software the learner will be able to produce presentation-quality materials and portfolio-ready graphics. The course will also cover the basics of virtual walkthrough and animation in the 3-D environment. Familiarity with computers and Microsoft Windows is required.</p> <p><i>Pre-requisite: Drafting for Interior Design (10-304-131) OR Drafting Skills for Interiors (10-304-167)</i></p>
<p>Presentation Techniques 10-304-166 3 Credits</p> <p>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.</p>
<p>Drafting Skills for Interiors 10-304-167 3 Credits</p> <p>Introduces the techniques and language of architectural drafting and construction. Basic floor plan and elevation drafting is practiced.</p>
<p>Interior Display 10-304-173 2 Credits</p> <p>Provides hands-on experiences in the art of display and arrangement. Topics include the selection and display of accessories, floral design, matting and framing, tools and techniques for hanging art, event planning and visual display for retail design.</p>
<p>Introduction to Commercial Design</p>

10-304-174**3 Credits**

Introduces the design, specification and documentation of commercial interiors. Provides students with knowledge of space planning, programming, office furnishings, finishes and materials, lighting, codes, building systems, sustainability and client presentation. Students develop CAD skills by producing documentation and furniture plans.

Prerequisites: Color Theory (10-304-127); Drafting for Interior Design (10-304-131) OR Drafting Skills for Interiors (10-304-167); Commercial CAD (10-304-128)

Marketing**Marketing 1, Principles of****10-104-151****3 Credits**

Introduces modern marketing practices. The course examines the role played by marketing in society and covers consumer motivation, market segmentation, product development, advertising and channels of distribution.

Intro to Sales**10-104-166****3 Credits**

Examines the basic concepts and principles of sales as they apply to retailing. It includes wholesaling and industrial selling, the function of selling in business and living, careers in personal selling, requirements and rewards, buying motives, product knowledge, prospecting and approach, product presentation, sale closing, account servicing and handling objections.

Transportation**Auto Body - Chassis & Finish****Collision Repair Welding 1****10-405-144****2 Credits**

Provides instruction in welding safety; introduction to the GMAW (MIG) welding process and equipment; and skills training in GMAW (MIG) welding on light gauge automotive steels in the flat, vertical and overhead positions. Students apply safe welding standards to a variety of industry applications on metals in a lab setting.

Co-requisite: Intro to Auto Refinishing (10-405-181) OR Intro to Collision Repair (10-405-180)

Intro to Collision Repair**10-405-180****2 Credits**

Focuses on developing the skills in professionalism, safety, and the use of basic hand and power tools and equipment in accordance with industry-accepted standards. Students are introduced to collision repair industry terms and definitions, as well as identifying and using collision repair information and procedures.

Intro to Automotive Refinishing**10-405-181****2 Credits**

Provides the learner with safety considerations and environmental regulations and how they apply to surface coating application. Emphasis is on personal protection, types of equipment operation and maintenance, and spray gun set-up and transfer efficiencies. Learners are also introduced to buffing and polishing in this course.

Automotive Technology

Please note: Automotive Service Fundamentals is the co-requisite to Steering & Suspension Systems. Students should not enroll in Steering & Suspension Systems as a stand-alone choice; however, student may take Automotive Service Fundamentals by itself.

Brake Systems

10-602-104

3 Credits

Focuses on developing the skills needed to diagnose, service and repair vehicle braking systems with an introduction to ABS. (ABS diagnosis, service and repair will be addressed in the Advanced Chassis course.)

Pre-requisite: Completion of 94-602-100 Bennett Mechanical Assessment with a score of 27% or completion of Science Principles for Transportation (10-806-175); ACCPL Reading \geq 47 OR ACT Read \geq 15 OR Program Prep; Co-requisite: Automotive Service Fundamentals (10-602-107)

Automotive Service Fundamentals

10-602-107

2 Credits

Focuses on developing skills in professionalism, safety, and the use of basic and power tools in accordance with industry standards. Students are introduced to the automotive service industry and learn to use both comprehensive and manufacturer's service information to perform basic under-hood and under-car services.

Pre-requisite: Completion of 94-602-100 Bennett Mechanical Assessment with a score of 27% or completion of Science Principles for Transportation (10-806-175); ACCPL Reading \geq 47 OR ACT Read \geq 15 OR Program Prep

Steering & Suspension Systems

10-602-124

3 Credits

Focuses on developing the skills needed to diagnose, service and repair steering and suspension systems including wheel alignment procedures.

Pre-requisite: ACCPL Reading \geq 47 OR ACT Read \geq 15 OR Program Prep; Co-requisite: Automotive Service Fundamentals (10-602-107) or Intro to Auto Refinishing (10-405-181) or Intro to Collision Repair (10-405-180)

Electrical & Electronic Systems 1

10-602-125

2 Credits

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.

Pre-requisite: Completion of 94-602-100 Bennett Mechanical Assessment with a score of 27% or completion of Science Principles for Transportation (10-806-175); ACCPL Reading \geq 47 OR ACT Read \geq 15 OR Program Prep; Co-requisite: Auto Service Fundamentals (10-602-107) or Intro to Auto Refinishing (10-405-181) or Intro to Collision Repair (10-405-180)

Electrical & Electronic Systems 2

10-602-127	3 Credits
Focuses on developing the skills needed to diagnose, service and repair electrical and electronic systems Including batteries, starting, charging, and lighting systems, and computer control systems.	
<i>Pre-requisite: ACCPL Reading >= 47 OR ACT Read >= 15 OR Program Prep; Co-requisite: Electrical & Electronic Systems 1 (10-602-125); Engine Repair 2 (10-602-123); Engines Machining (10-602-161)</i>	
Science Principles for Transportation	
10-806-175	3 Credits
Introduces the physics principles involved with technical measurement, force application, fluid properties, heat and electricity. Emphasizes problem-solving skills, teamwork and the application of scientific principles in the transportation industry.	
<i>Co-requisite: Math for the Trades (31-804-307) or College Technical Math 1 or 1A(10-804-115/113) or College Mathematics (10-804-107)</i>	
Combustion Engines	
Introduction to Diesel Technology	
10-412-101	4 Credits
Introduces the student to the diesel shop environment, and emphasizes shop safety and general shop practices. The course prepares the student for success in the core diesel program classes.	
<i>Co-requisite: Service Management (10-412-128) & Intro Transportation Welding (10405147) & Oral/Interpersonal Comm (10-801-196) OR Human Relations (31-809-300) & Comm, Applied (31-801-318); AND Diesel Textbooks (94-412-001) & Uniforms (94-412-002).</i>	
Diesel Heavy Duty Brake Systems	
10-412-112	3 Credits
Focuses on the air brake system component operation and maintenance for trucks and tractor/trailers. Students will learn to perform overhaul procedures for cam; wedge and disc air operated foundation brakes, as well as heavy-duty hydraulic brakes. It provides the opportunity for students to test and troubleshoot the entire air and hydraulic brake systems, including ABS systems found in trucks.	
<i>Pre-requisites: ACCPL Reading >= 47 or ACT Read >= 15 or Program Prep AND Intro to Diesel Technology (10-412-101); Co-requisites: Diesel Steering and Suspension (10-412-113); Diesel Preventative Maintenance (10-412-114); Drive Train (10-412-118).</i>	
Diesel Steering and Suspension	
10-412-113	2 Credits
Focuses on heavy-duty truck suspensions and steering systems. Students will learn about the operation, maintenance and overhaul of various types of heavy-duty suspensions. It provides technicians with the opportunity to perform total vehicle alignments. Testing and troubleshooting of power steering systems and steering complaints are also covered.	
<i>Pre-requisites: ACCPL Reading >= 47 or ACT Read >= 15 or Program Prep AND Intro to Diesel Technology (10-412-101); Co-requisites: Diesel Heavy Duty Brake Systems (10-412-112); Diesel Preventative Maintenance (10-412-114); Drive Train (10-412-118).</i>	
Diesel Preventive Maintenance	
10-412-114	3 Credits

Focuses on the techniques for performing preventive maintenance and DOT criteria for performing annual inspections. Discussion includes the importance of vehicle maintenance and inspections. Students learn record-keeping requirements and earn an annual inspection certificate upon successful completion of the test at the conclusion of the class.

Pre-requisites: ACCPL Reading \geq 47 or ACT Read \geq 15 or Program Prep AND Intro to Diesel Technology (10-412-101); Co-requisites: Diesel Heavy Duty Brake Systems (10-412-112); Diesel Steering and Suspension (10-412-113); Drive Train (10-412-118).

Drive Train
10-412-118

4 Credits

Focuses on the operation and maintenance of the power train. Students will learn the procedures for overhauling, adjusting and troubleshooting heavy-duty transmission, clutches and various final drives found on over-the-road trucks and tractors. Students will learn how to calculate the change driveline angles.

Pre-requisites: ACCPL Reading \geq 47 or ACT Read \geq 15 or Program Prep AND Intro to Diesel Technology (10-412-101); Co-requisites: Diesel Heavy Duty Brake Systems (10-412-112); Diesel Steering and Suspension (10-412-113); Diesel Preventative Maintenance (10-412-114).

Tune-up & Diagnostic Testing
10-412-127

4 Credits

Focuses on key troubleshooting skills and methodology. Engine system testing procedures and tools are used to analyze symptom-based engine problems. Application of computer diagnostic tools is employed in actual live road testing situations. Engine dynamometer operation will also be part of this course.

Pre-requisites: ACCPL Reading \geq 47 or ACT Read \geq 15 or Program Prep AND Intro to Diesel Technology (10-412-101); Co-requisites: Diesel H.D. Fuel Systems (10-412-132); Diesel Engine Rebuilding (10-412-133); Diesel Elect Fuel Management (10-412-134).

Service Management
10-412-128

4 Credits

Focuses on business operations, shop liability and human relations issues in the diesel mechanics field. Students will be introduced to regulations for federal and state agencies such as OSHA, DILHR, DOT and the DNR.

Co-requisites: Introduction to Diesel Technology (10-412-101) AND Intro, Transportation Welding (10-405-147); AND Oral/Interpersonal Communication (10-801-196) OR Human Relations (31-809-300) and Communication, Applied (31-801-318).

Diesel Heavy Duty Fuel Systems
10-412-132

3 Credits

Focuses on modern fuel subsystems' design and functionality. Lab demonstrations cover testing of the heavy duty fuel systems and troubleshooting, with a strong emphasis on component identification, inspection and adjustment.

Pre-requisites: ACCPL Reading \geq 47 or ACT Read \geq 15 or Program Prep AND Intro to Diesel Technology (10-412-101); Co-requisites: Tune-up & Diagnostic Testing (10-412-127); Diesel Engine Rebuilding (10-412-133); Diesel Elect Fuel Management (10-412-134).

Diesel Engine Rebuilding
10-412-133

3 Credits

Provides students with the opportunity to disassemble, identify each part of a modern diesel engine, measure all wear points and make reuse recommendations. Students will also reassemble an electronic controlled diesel engine. Component analysis, function and operation theories of the diesel engine are lecture topics studied.

Pre-requisites: ACCPL Reading \geq 47 or ACT Read \geq 15 or Program Prep AND Intro to Diesel Technology (10-412-101); Co-requisites: Tune-up & Diagnostic Testing (10-412-127); Diesel H.D. Fuel Systems (10-412-132); Diesel Elect Fuel Management (10-412-134).

Diesel Electronic Fuel Management Systems**10-412-134****3 Credits**

Focuses on electronic computer controlled engine management system function, component identification and computer based diagnostic tool operation. Lab demonstrations cover component identification, function and testing of the engine management systems. The course also introduces the student to proper operation and use of electronic testing with the use of a digital volt ohm meter.

Pre-requisites: ACCPL Reading >= 47 or ACT Read >= 15 or Program Prep AND Intro to Diesel Technology (10-412-101); Co-requisites: Tune-up & Diagnostic Testing (10-412-127); Diesel H.D. Fuel Systems (10-412-132); Diesel Engine Rebuilding (10-412-133).

Welding for Technicians**10-442-104****1 Credit**

Acquaints students with the common techniques and procedures for SMAW, GMAW and FCAW welding. Topics include welding metal from 3/16" to 3/4" thick, cutting metal with plasma and oxy-fuel, metal identification, selection of electrodes and American Welding Society symbols. Students will also develop skills in working with other people.

Transport Trailer Service**Semi-Trailer Repair 1****30-412-300****3 Credits**

Focus is on how to repair Semi-trailer side panels, roofs, and top and bottom rails. Students will learn how to replace doors, cross members, and check trailers for leaks. It provides the students the opportunity to perform general trailer maintenance.

Co-requisites: Intro to Semi-Trailer Repair (30-412-305); Semi-Trailer Elec 1 (30-412-301); Semi-Trailer Brakes & ABS (30-412-302); Semi-Trailer Suspension Repair (30-412-304); Semi-Trailer Repair 1 (30-412-300); Semi-Trailer Annual Inspection (30-412-303).

Semi-Trailer Electrical**30-412-301****2 Credits**

Focuses on the fundamentals of electricity and how to repair electrical circuits found on Semi-trailers. Students will learn testing and troubleshooting procedures for trailer systems presently used in the industry, as well as how to perform repairs.

Co-requisites: Intro to Semi-Trailer Repair (30-412-305); Semi-Trailer Elec 1 (30-412-301); Semi-Trailer Brakes & ABS (30-412-302); Semi-Trailer Suspension Repair (30-412-304); Semi-Trailer Repair 1 (30-412-300); Semi-Trailer Annual Inspection (30-412-303).

Semi-Trailer Brakes & ABS**30-412-302****2 Credits**

Focuses on the air brake system component theory, operation, repair and maintenance for Semi-trailers. Students will learn to perform overhaul procedures for cam, wedge, and disc air operated foundation brakes. It provides the opportunity for students to test and troubleshoot the entire air brake system including ABS systems found on Semi-trailers.

Co-requisites: Intro to Semi-Trailer Repair (30-412-305); Semi-Trailer Elec 1 (30-412-301); Semi-Trailer Brakes & ABS (30-412-302); Semi-Trailer Suspension Repair (30-412-304); Semi-Trailer Repair 1 (30-412-300); Semi-Trailer Annual Inspection (30-412-303).

Semi-Trailer Annual Inspection**30-412-303****1 Credit**

Focuses on the techniques required to perform preventive maintenance and DOT criteria for performing annual inspections on Semi-trailers. Discussion includes the importance of vehicle maintenance and inspections. Students learn record-keeping requirements and earn an annual inspection certificate upon successful completion of the test at the conclusion of the class.

Co-requisites: Intro to Semi-Trailer Repair (30-412-305); Semi-Trailer Elec 1 (30-412-301); Semi-Trailer Brakes & ABS (30-412-302); Semi-Trailer Suspension Repair (30-412-304); Semi-Trailer Repair 1 (30-412-300); Semi-Trailer Annual Inspection (30-412-303).

**Semi-Trailer Suspension Repair
30-412-304**

2 Credit

Focuses on the operation, maintenance and overhaul of various types of heavy-duty Semi-trailer suspensions. Students will learn how to perform axle alignments, replace landing gear, and repair tire inflation systems.

Co-requisites: Intro to Semi-Trailer Repair (30-412-305); Semi-Trailer Elec 1 (30-412-301); Semi-Trailer Brakes & ABS (30-412-302); Semi-Trailer Suspension Repair (30-412-304); Semi-Trailer Repair 1 (30-412-300); Semi-Trailer Annual Inspection (30-412-303).

**Intro to Semi-Trailer Repair
30-412-305**

2 Credit

Focuses on the operation, maintenance and overhaul of various types of heavy-duty Semi-trailer suspensions. Students will learn how to perform axle alignments, replace landing gear, and repair tire inflation systems.

Co-requisites: Intro to Semi-Trailer Repair (30-412-305); Semi-Trailer Elec 1 (30-412-301); Semi-Trailer Brakes & ABS (30-412-302); Semi-Trailer Suspension Repair (30-412-304); Semi-Trailer Repair 1 (30-412-300); Semi-Trailer Annual Inspection (30-412-303).

General Studies

College Skills

**College Success 1
10-890-100**

1 Credit

Encourages students to explore and develop the skills, attitudes and habits leading to academic success. Topics include study skills such as memory devices, test-taking and note-taking; personal development skills including learning style and time management, and orientation to FVTC services and resources.

**College and Career Success
10-890-110DE**

2 Credits

Participants examine career options, develop academic and career goals, and learn specific skills to enhance their success in meeting their professional and personal goals. Topics include personal and academic assessments, determining career fits, and personal development skills including learning styles, time management, test-taking, how to access academic resources, and goal setting.

Communication Skills

English Composition 1

10-801-136	3 Credits
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.	
<i>Pre-requisite: ACCPL Reading >= 54 & Sentence >= 83 OR ACT (Read/English) >= 18 OR Program Prep</i>	
Written Communication	
10-801-195	3 Credits
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.	
<i>Pre-requisite: ACCPL Reading >= 54 & Sentence >= 83 OR ACT (Read/Sent) >= 18 OR Program Prep</i>	
Oral/Interpersonal Communication	
10-801-196	3 Credits
Focuses on developing various communication skills including speaking and listening. Students practice intrapersonal/interpersonal and nonverbal communication skills through oral presentations, group activities and written projects.	
<i>Pre-requisite: ACCPL Reading >= 54 & Sentence >= 83 OR ACT (Read/Sent) >= 18 OR Program Prep</i>	
Speech	
10-801-198	3 Credits
Covers the fundamentals of oral presentation, topic selection, audience analysis, speech organization, research, evidence and support, delivery, evaluation, listening and group problem solving.	
<i>Pre-requisite: ACCPL Reading >= 54 & Sentence >= 83 OR ACT (Read/Sent) >= 18 OR Program Prep</i>	
Introduction to College Writing	
10-831-103	3 Credits
Introduces basic principles of composition including organization, development, unity, and coherence in paragraphs and multi-paragraph documents. This course does not count toward program degree completion.	
Introduction to Reading and Study Skills	
10-838-105	3 Credits
Provides learners with opportunities to develop study skills and expand reading skills including comprehension, fluency and vocabulary skills. Learners apply reading skills to academic tasks and read to acquire information from a variety of sources. This course does not count toward program degree completion.	
Mathematics	
College Mathematics	
10-804-107	3 Credits

Designed to review and develop fundamental concepts of mathematics pertinent to the areas of arithmetic and algebra; geometry and trigonometry; and probability and statistics. Special emphasis is placed on problem solving, critical thinking and logical reasoning, making connections, and using calculators.

Pre-requisite: ACCPL Arithmetic \geq 65 OR ACT Math \geq 18 OR Program Prep

College Technical Math 1A

10-804-113

3 Credits

Included topics are solving linear, quadratic, and rational equations; graphing; formula rearrangement; solving systems of equations; percent; proportions; and operations on polynomials. 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.

Pre-requisite: ACCPL Arithmetic \geq 65 OR ACT Math \geq 18 OR Program Prep

College Technical Math 1B

10-804-114

2 Credits

Continuation of College Technical Math 1A. Topics include measurement systems; computational geometry; right and oblique triangle trigonometry; and trigonometric functions on the unit circle. Emphasis will be on the application of skills to technical problems. Successful completion of College Technical Math 1A and College Technical Math 1B is the equivalent of College Technical Math 1.

Pre-requisite: College Technical Math 1A (10-804-113)

College Technical Math 1

10-804-115

5 Credits

Includes solving linear, quadratic, and rational equations; graphing; formula rearrangement; solving systems of equations; percents; proportions; measurement systems; computational geometry; right and oblique triangle trigonometry; trigonometric functions on the unit circle; and operations on polynomials. Emphasis will be on the application of skills to technical problems. This course is the equivalent of successful completion of College Technical Math 1A and College Technical Math 1B.

Pre-requisite: ACCPL Arithmetic \geq 65 OR ACT Math \geq 18 OR Program Prep

College Technical Math 2

10-804-116

4 Credits

Included topics are vectors; trigonometric functions and their graphs; identities; exponential and logarithmic functions and equations; radical equations; equations with rational exponents; dimension of a circle; velocity; sine and cosine graphs; complex numbers in polar and rectangular form; trigonometric equations; conic sections; and analysis of statistical data. Emphasis will be on the application of skills to technical problems.

Pre-requisite: College Technical Math 1 (10-804-115) or College Technical Math 1B (10-804-114)

Math for Natural Resources Common Topics

10-804-117

2 Credits

Includes real numbers, linear equations, rate, ratio, proportion, percent, measurement systems, computational geometry and right-triangle trigonometry. Emphasis is on applied problems from the field of natural resources (surveying, water treatment, forestry, plant and wild life management).

Pre-requisite: ACCPL Arithmetic \geq 65 OR ACT Math \geq 18 OR Program Prep; Co-requisite: Natural Resources Common Topics (10-057-143)

Math w/ Business Apps 10-804-123	3 Credits
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.	
<i>Pre-requisite: ACCPL Arithmetic >= 65 OR ACT Math >= 18 OR Program Prep</i>	
Introductory Statistics 10-804-189	3 Credits
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.	
Pre-Algebra 10-834-109	3 Credits
Provides an introduction to algebra. Includes operations on real numbers, solving linear equations, percent and proportion, and an introduction to polynomials and statistics. This course does not count toward program degree completion.	
Math for the Trades 31-804-307	2 Credits
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	
Beginning Laboratory Science 10-506-101	3 Credits
Introduces the learner to beginning laboratory concepts and procedures. Emphasis will be on general laboratory safety, basic laboratory equipment utilization and calibration techniques. An introduction to scientific inquiry will be addressed. Proper techniques in documentation as it relates to quality control in verification of a quality system will be introduced. Concepts in data analysis will be reviewed as it relates to creation of a laboratory notebook.	
<i>Pre-requisite: ACCPL Reading >= 80 & Sentence >= 83 & Arithmetic >= 65 OR ACT (Sent/Math) >= 18 & Read >= 20 OR Program Prep</i>	
General Biology 10-806-114	4 Credits
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.	
<i>Pre-requisite: ACCPL Reading >= 54 & Sentence >= 83 OR ACT (Read/Sent) >= 18 OR Program Prep</i>	

General Chemistry**10-806-134****4 Credits**

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

Pre-requisite: ACCPL Algebra ≥ 51 OR ACT(Math) ≥ 18 OR Program Prep with a C or better OR College Math 1 (10-804-115/113) OR Algebra (10-804-109) OR Tech Math (10-804-121) OR Math Tech Basic (10-804-125) OR College Math (10-804-107) OR Math Common Topics (10-804-117)

General Anatomy & Physiology**10-806-177****4 Credits**

Examines basic concepts of human anatomy and physiology as they relate to health sciences. Using a body systems approach, the course emphasizes the interrelationships between structure and function at the gross and microscopic levels of organization of the entire human body. It is intended to prepare health care professionals who need to apply basic concepts of whole body anatomy and physiology to informed decision-making and professional communication with colleagues and patients. (This course also provides the foundation, and is pre-requisite to, Advanced Anatomy and Physiology.)

Pre-requisite: ACCPL Read ≥ 80 OR ACT Read ≥ 20 OR Program Prep; ACCPL Sentence ≥ 83 OR ACT Engl ≥ 18 OR Program Prep; 2 semesters of HS Chemistry OR Gen Chemistry (10-806-134) with C or better. Can't enroll in multiple sections of Gen A&P in the same term.

Intro to Biochemistry**10-806-186****4 Credits**

Provides students with skills and knowledge of organic and biological chemistry necessary for application within Nursing and other Allied Health careers. Emphasis is on recognizing the structure, physical properties and chemical reactions of organic molecules, body fluids, and acids. Additional emphasis is placed on biological functions and their relationships to enzymes, proteins, lipids, carbohydrates and DNA.

Pre-requisite: Two semesters of high school chemistry or General Chemistry (10-806-134) with grade of C or better; ACCPL Reading ≥ 54 & Sentence ≥ 83 OR ACT (Read/Sent) ≥ 18 OR Program Prep

Basic Anatomy**10-806-189****3 Credits**

Examines concepts of anatomy and physiology as they relate to health careers. Learners correlate anatomical and physiological terminology to all body systems.

Pre-requisite: ACCPL Reading ≥ 54 & Sentence ≥ 83 OR ACT (Read/Sent) ≥ 18 OR Program Prep

Human Biology**10-806-198****4 Credits**

Emphasizes the structure of the human body and the functional interrelationships of the body's systems. Consideration is given to the human body and disease, human genetics, human ecology, and the role that humans play in the environment.

Pre-requisite: ACCPL Reading ≥ 54 & Sentence ≥ 83 OR ACT (Read/Sent) ≥ 18 OR Program Prep

Social Science

Think Critically & Creatively 10-809-103	3 Credits
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>Pre-requisite: ACCPL Reading >= 54 & Sentence >= 83 OR ACT (Read/Sent) >= 18 OR Program Prep</i>	
Leadership as an Art 10-809-110	3 Credits
Focuses on the development of leadership abilities. Students create a personal philosophy of leadership and discuss moral and ethical responsibilities. Through study and observation of great leaders plus hands-on activities, students develop fundamental concepts of leadership.	
Marriage and Family 10-809-128	3 Credits
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.	
Abnormal Psychology 10-809-159	3 Credits
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.	
<i>Pre-requisite: Introduction to Psychology (10-809-198) or Psychology of Human Relations (10-809-199)</i>	
Intro to Ethics: Theory & App 10-809-166	3 Credits
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.	
<i>Pre-requisite: ACCPL Reading >= 54 & Sentence >= 83 OR ACT (Read/Sent) >= 18 OR Program Prep</i>	
Introduction to Diversity Studies 10-809-172	3 Credits
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.	
<i>Pre-requisite: ACCPL Reading >= 54 & Sentence >= 83 OR ACT (Read/Sent) >= 18 OR Program Prep</i>	
Developmental Psychology 10-809-188	3 Credits

<p>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.</p>	
<p><i>Pre-requisite: Intro to Psychology (10-809-198) or enrollment in the Nursing-Associate Degree or Practical Nursing plan</i></p>	
<p>Economics 10-809-195</p>	<p>3 Credits</p>
<p>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.</p>	
<p><i>Pre-requisite: ACCPL Reading >= 54 & Sentence >= 83 OR ACT (Read/Sent) >= 18 OR Program Prep</i></p>	
<p>Intro to Sociology 10-809-196</p>	<p>3 Credits</p>
<p>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.</p>	
<p><i>Pre-requisite: ACCPL Reading >= 54 & Sentence >= 83 OR ACT (Read/Sent) >= 18 OR Program Prep</i></p>	
<p>Contemporary American Society 10-809-197</p>	<p>3 Credits</p>
<p>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.</p>	
<p><i>Pre-requisite: ACCPL Reading >= 54 & Sentence >= 83 OR ACT (Read/Sent) >= 18 OR Program Prep</i></p>	
<p>Intro to Psychology 10-809-198</p>	<p>3 Credits</p>
<p>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.</p>	
<p><i>Pre-requisite: ACCPL Reading >= 54 & Sentence >= 83 OR ACT (Read/Sent) >= 18 OR Program Prep</i></p>	
<p>Psychology of Human Relations 10-809-199</p>	<p>3 Credits</p>
<p>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.</p>	
<p><i>Pre-requisite: ACCPL Reading >= 54 & Sentence >= 83 OR ACT (Read/Sent) >= 18 OR Program Prep</i></p>	
<p>Human Relations 31-809-300</p>	<p>2 Credits</p>

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.

Global Studies

Global Studies

Global Business Fundamentals

10-138-150

3 Credits

Provides the opportunity to develop the knowledge, skills and understanding of global business foundations, global business environments, organizing and managing global business, marketing in a global economy and global financial management.

Global Understanding

10-141-158

3 Credits

Develop global perspectives while acquiring skills to effectively work in global environments. Learners compare and contrast patterns of work related practices. Topics include the impact of geography, history, religion, and politics in shaping behaviors and social interactions like; non-verbal communication, negotiating, conflict management, team work, decision making and motivation.

Global Leadership & Professional Development

10-141-164

3 Credits

This course emphasizes global leadership and professional development, focusing on academics, professionalism, and personal growth. Students will learn about key global leadership principles and how to apply the principles to their personal, professional, and academic life. The course provides training for future "agents of change" professionals with global awareness.

Foreign Languages

Spanish 1 Culinary Arts

10-141-100

3 Credits

An introduction to the Spanish language focusing on terminology as it pertains to communicating culinary and restaurant tasks. Upon completion of this course, the participant will have the basic ability to understand spoken Spanish, deliver basic job related commands, explain simple culinary/restaurant procedures, and gain insight into culture as it relates to interacting with Spanish speakers.

Spanish 1 Health Care

10-141-110

3 Credits

Students learn basic phrases and questions necessary for health care tasks. Upon completion, the participant will have the basic ability to understand spoken Spanish, gain insight into cross-cultural issues as well as to express and obtain explanations of common symptoms, the nature and the duration of an illness and obtain patient vitals.

<p>Spanish 2 Health Care 10-141-111</p>	3 Credits
<p>Presents more complex phrases, questions and in-depth vocabulary for health-related tasks. At the conclusion of this course, the participant will have the ability to understand more complex spoken Spanish, gain further insight into cross-cultural issues as well as to obtain information about more complex health symptoms and illnesses. Spanish 1 Health Care (10-141-110) or consent of instructor is required.</p>	
<p>Spanish 3 Health Care 10-141-112</p>	3 Credits
<p>A continuation of Spanish 2 Health Care (10-141-111) presents increasingly complex phrases, grammar and in-depth vocabulary for health-related tasks. Students will understand and express complex spoken Spanish as it relates to health care, gain awareness of cross-cultural issues as well as obtain information about more specific health-related symptoms and illnesses. Spanish 2 Health Care (10-141-111) or consent of instructor is required.</p>	
<p>Spanish 4 Health Care 10-141-113</p>	3 Credits
<p>A continuation of Spanish 3 Health Care (10-141-112) presents increasingly complex phrases, grammar and vocabulary. Students will understand and express more complex health-related Spanish including identifying more symptoms and illnesses and further study of cross-cultural topics. A capstone course which focuses on practice and application of concepts learned in Spanish Health Care 1-3. Spanish 3 Health Care (10-141-112) or consent of instructor is required.</p>	
<p>Spanish 1 Law Enforcement 10-141-115</p>	3 Credits
<p>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.</p>	
<p>Spanish 1 10-802-100</p>	3 Credits
<p>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.</p>	
<p>Spanish 2 10-802-101</p>	3 Credits
<p>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.</p>	
<p>Spanish 3 10-802-102</p>	3 Credits
<p>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.</p>	

Spanish 4 10-802-103	3 Credits
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.	
Spanish for True Beginners 10-802-106	1 Credit
Teaches the basics of meeting and greeting, pronunciation and fundamentals of Spanish sentence structure. Useful words and expressions will boost ability and confidence to communicate in Spanish. Culturally relevant topics will be covered. No previous Spanish language experience needed.	
Spanish Conversation Intermediate 10-802-110	2 Credits
Designed for students and professionals who have attained an intermediate level of Spanish at FVTC or elsewhere, desiring to practice and enhance their conversational ability. Upon completion of the course, students will speak Spanish at an intermediate level with increasing comfort and effectiveness. Completion of Spanish 3 or consent of instructor is required.	
Chinese Mandarin 1 10-802-117	3 Credits
Establishes a foundation in the Mandarin Chinese language presenting everyday situations. It focuses on vocabulary building, basic grammar, word recognition and usage, conversation, and understanding of culture and tradition.	
French 1 10-802-118	3 Credits
Establishes a foundation in the French language presenting everyday situations. It focuses on vocabulary building, basic grammar, word recognition and usage, conversation, and understanding of culture and tradition.	
German 1 10-802-119	3 Credits
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.	
Italian 1 10-802-120	3 Credits
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.	
French Advanced Conversation 10-802-125	3 Credits
Further develops learners' reading, writing, listening and speaking skills in French. Completion of this course focused on speaking skills will enable students to gain the knowledge and skills necessary to effectively engage in verbal communication on a variety of topics. Completion of French 2, French 3, or instructor consent required.	

German Advanced Conversation**10-802-128****3 Credits**

Further develops learners' German reading, writing, listening and speaking skills. Completion of this course focused on speaking skills will enable students to gain knowledge and skills necessary to effectively engage in verbal communication on a variety of topics. Completion of German 2, 3, German Intermediate Conversation or instructor consent required.

Italian Advanced Conversation**10-802-182****3 Credits**

Further develops learners' Italian reading, writing, listening and speaking skills. Completion of this course focused on speaking skills will enable students to gain knowledge and skills necessary to effectively engage in verbal communication on a variety of topics. Completion of Italian 2, 3, Italian Intermediate Conversation or instructor consent required.

Japanese 1**10-802-183****3 Credits**

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.

Russian 1**10-802-193****3 Credits**

Establishes a foundation in Russian language, focusing on language of common, everyday situations. Expands on vocabulary, basic grammar, word recognition and usage, conversation, and understanding of culture and tradition.

Japanese Intermediate Conversation**10-802-196****3 Credits**

Expands on the fundamentals of level 2 grammar and communication and further develops learners' reading, writing, listening and speaking skills in conversational Japanese. Completion of this course will enable students to gain the knowledge and skills necessary to effectively engage in communication. Completion of Japanese 2 or 3, or consent of instructor is required.

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 (usually online) in order to gain admission into a Fox Valley Technical College program. Youth Options students are required to apply for Nursing Assistant and EMT-Basic programs.

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 Youth Options classes.

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

Department of Public Instruction form A (PI8700-A) – Youth Options students need to complete and return this form to their high school before registering for classes.

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

Term – FVTC has three separate terms per year: Spring, Summer, and Fall. Students are eligible to take courses through Youth Options during the Spring and Fall terms.