2018-2019
CVTC ACADEMIC CATALOG

CVTC. The right choice.

Chippewa Valley Technical College

VISIT CVTC

A campus visit is an extremely important part of choosing the college that is right for you. Online research can only show you so much, but an in-person visit to CVTC will reveal what pictures and text on a page can't capture.

> **Go to cvtc.edu/visit to plan your CVTC visit.**

CAMPUS LOCATIONS

> **For more information, please contact CVTC's Student Central:**
Call: 715-833-6200 • Fax: 715-833-6470 • TDD: 715-833-6254 • Email: StudentCentral@cvtc.edu

Eau Claire

Clairemont Campus

Business Education Center

620 W. Clairemont Avenue
Eau Claire, WI 54701

Diesel Education Center

2710 Arbor Court
Eau Claire, WI 54701

Health Education Center

615 W. Clairemont Avenue
Eau Claire, WI 54701

Eau Claire West Campus

Emergency Service Education Center

3623 Campus Road
Eau Claire, WI 54703

Energy Education Center

4000 Campus Road
Eau Claire, WI 54703

Eau Claire Gateway Campus

Manufacturing Education Center

2320 Alpine Road
Eau Claire, WI 54703

Chippewa Falls Campus

770 Scheidler Road
Chippewa Falls, WI 54729

Menomonie Campus

403 Technology Drive East
Menomonie, WI 54751

Neillsville Center

11 Tiff Avenue
Neillsville, WI 54456

River Falls Campus

500 S. Wasson Lane
River Falls, WI 54022

Chippewa Valley Technical College

2018-2019 College Calendar

2018 Summer	
May 21 – June 8	Interim Period
May 28	Memorial Day Holiday – College Closed
June 11 – August 3	8-Week Summer Session
August 2	Eau Claire Graduation (TBA)
July 4	July 4th Holiday – College Closed
August 6 – 24	Interim Period

2018-2019 School Year	
August 22 – 23	Instructor In-service
August 24	Non-Contract Day
August 27	Classes Begin (First Semester)
September 3	Labor Day Holiday – College Closed
October 19	End of 8 Weeks
November 22 – 23	Thanksgiving Holiday – College Closed
December 17	Last Day of First Semester Classes
December 18	Eau Claire Graduation (TBA)
December 18	Instructor In-service
December 24 and 25	Christmas Holiday – College Closed
December 31 and January 1	New Year's Holiday – College Closed
January 2 – 18	Winter Term
January 16 – 17	Instructor In-service
January 18	Non-Contract Day
January 21	Classes Begin (Second Semester)
March 15	End of 8 Weeks
March 18 – 22	Spring Break
April 19	Spring Holiday – College Closed
May 16	Last Day of Second Semester Classes
May 16	River Falls Graduation (TBA)
May 17	Eau Claire Graduation (TBA)
May 17	Instructor In-service

2019 Summer	
May 20 – June 7	Interim Period
May 27	Memorial Day Holiday – College Closed
June 10 – August 2	8-Week Summer Session
August 1	Eau Claire Graduation (TBA)
July 4	July 4th Holiday – College Closed
August 5 – 23	Interim Period

Approved: 5/10/2017
Revised: Click here to enter a date.

2018-2019
Tuition & Fees Schedule

Tuition is defined as program fees, material fees, parking fees, supplemental fees and other class fees. Other class fees may include books, equipment, field trips, uniforms, graduation and sales tax.

Description of Fee	Cost
Estimated Tuition (WI, MN residents)	$134.20 per credit
Estimated Tuition (Out of State*)	$201.30 per credit
Estimated Tuition (Liberal Arts)	$181.50 per credit
Activity Fee	5.5% of current per-credit tuition rate
Application Processing Fee	$30.00
Safety & Security Fee	$3 per credit, $45 max
Online Course Fee	$10 per credit, $10 minimum
Health Services Fee**	$7.00 - $19.00

**Out-of-state tuition fees do not apply to distance education offerings. International students need to contact the U.S. Citizenship and Immigration Services Designated School Official (DSO) at (715) 833-6343.*

*** Fees vary based on location and number of credits registered for.*

CVTC Program Name	Estimated Total Cost for Tuition, Tools & Books	Section of the Catalog
Accounting	$12,185.38	Associate Degree
Accounting Assistant	$6,263.48	1 year Diploma
Agronomy Management	$10,705.86	Associate Degree
Agronomy Technician	$6,415.8	1 year Diploma
Air Conditioning, Heating & Refrigeration Technician	$6,979.30	1 year Diploma
Air Conditioning, Heating & Refrigeration Technology	$12,912.44	Associate Degree
Alcohol & Other Drug Abuse	$12,723.10	Associate Degree
Animal Science Management	$11,425.80	Associate Degree
Architectural Structural Design	$11,494.36	Associate Degree
Auto Collision Repair & Refinish Technician	$11,890.29	1 year Diploma
Automation Engineering Technology	$12,065.74	Associate Degree
Automotive Maintenance Technician	$10,664.32	1 year Diploma
Automotive Technician	$15,025.06	2 year Diploma
Bookkeeper	$1,675.72	<1 year Diploma
Business Management	$11,211.48	Associate Degree

CVTC Program Name	Estimated Total Cost for Tuition, Tools & Books	Section of the Catalog
Central Service Technician	$1438.48	<1 year Diploma
Child Care Services	$5,059.24	1 year Diploma
Cosmetology	$9,650.02	1 year Diploma
Criminal Justice	$12,413.52	Associate Degree
Criminal Justice-Law Enforcement 720 Academy	$4,642.61	<1 year Diploma
Culinary Management	$13,404.3	Associate Degree
Culinary Production Specialist	$6,606.74	1 year Diploma
Dental Assistant	$3,294.28	<1 year Diploma
Dental Hygienist	$16,809.7	Associate Degree
Design and Drafting Technology	$2,763.36	<1 year Diploma
Diagnostic Medical Sonography	$13,412.13	Associate Degree
Diesel Truck Mechanic	$5,567.95	1 year Diploma
Diesel Truck Technician	$15,573.65	2 year Diploma
Digital Marketing	$11,075.76	Associate Degree
Early Childhood Education	$10,766.80	Associate Degree
Electrical Maintenance	$2,577.80	<1 year Diploma
Electrical Power Distribution	$10,206.80	1 year Diploma
Electromechanical Maintenance Technician	$4,686.92	1 year Diploma
Emergency Medical Technician	$837.90	<1 year Diploma
Entrepreneurship	$5,556.40	1 year Diploma
Executive Assistant	$11,424.30	Associate Degree
Farm Business & Production Management	$3,544.92	<1 year Diploma
Farm Operation	$4,175.08	1 year Diploma
FireMedic	$14,250.57	Associate Degree
Foundations of Teacher Education	$9,598.80	Associate Degree
Health Information Management & Technology	$12,399.54	Associate Degree
Human Resources	$11,871.30	Associate Degree
Individualized Technical Studies	$8,977.38 ◊	Associate Degree
Industrial Mechanic	$7,979.46	1 year Diploma
Industrial Mechanical Technician	$12,705.88	Associate Degree
IT - Network Specialist	$10,707.04	Associate Degree
IT - Software Developer	$10,408.46	Associate Degree
IT – Software Development Specialist	$1,350.72	<1 year Diploma
Landscape, Plant & Turf Management Technician	$5,220.74	1 year Diploma
Landscape, Plant & Turf Management	$10,783.30	Associate Degree
Liberal Arts - Associate of Science	$13,704.64	Associate Degree
Library and Information Services	$9,889.98	Associate Degree

CVTC Program Name	Estimated Total Cost for Tuition, Tools & Books	Section of the Catalog
Livestock Technician	$5,655.82	1 year Diploma
Machine Tool Operator	$6,964.64	1 year Diploma
Machine Tooling Technics	$12,910.28	2 year Diploma
Manufacturing Engineering Technologist	$11,689.46	Associate Degree
Manufacturing Quality	$2,772.78	<1 year Diploma
Marketing	$10,982.88	Associate Degree
Mechanical Design Technology	$10,443.30	Associate Degree
Mechanical Maintenance	$3,756.70	<1 year Diploma
Medical Assistant	$7,122.14	1 year Diploma
Medical Laboratory Technician	$12,446.44	Associate Degree
Motorcycle, Marine & Outdoor Power Products Technician	$9,059.46	1 year Diploma
Nail Technician	$1,941.22	<1 year Diploma
Nursing	$14,371.60	Associate Degree
Nursing Assistant	$568.24	<1 year Diploma
Office Assistant	$6,348.22	1 year Diploma
Office Receptionist	$3,068.62	<1 year Diploma
Organizational Leadership	$10,141.30	Associate Degree
Paralegal	$11,387.28	Associate Degree
Paralegal Post-Baccalaureate (Paralegal Studies)	$3,896.92	<1 year Diploma
Paramedic	$8,026.83	1 year Diploma
Paramedic Technician	$12,678.54	Associate Degree
Pharmacy Technician	$6,181.32	1 year Diploma
Physical Therapist Assistant	$11,262.12	Associate Degree
Professional Communications	$10,615.80	Associate Degree
Radiography	$12,087.50	Associate Degree
Renewable Energy	$3,381.44	<1 year Diploma
Residential Construction	$8,162.88	1 year Diploma
Respiratory Therapy	$11,232.86	Associate Degree
Surgical Technologist	$6,400.80	1 year Diploma
Technical Studies - Journeyworker	$2,000.00 ◊	Associate Degree
Truck Driving	$2,601.96	<1 year Diploma
Welding	$8,651.54	1 year Diploma
Welding Fabrication	$14,331.52	2 year Diploma

◊ This total only includes General Education courses. The actual cost will depend upon on program classes chosen.

ASSOCIATE DEGREE PROGRAMS

Accounting - 10-101-1

Associate Degree - Two Years

Offered in Eau Claire • August or January entry dates in Eau Claire

Description

If you enjoy working with numbers, have an interest in business, and are searching for a career path full of opportunity, the Accounting program may be right for you. Accounting is often referred to as the language of business. In this program, you will learn to record and interpret business data. You'll develop analytical skills that will enable you to seek a career as an accountant, controller, account receivable/payable clerk, tax preparer, payroll specialist, and office manager.

Computerized applications are incorporated to reflect current industry practices. You'll be prepared to

- Set up and maintain accounting records and systems
- Analyze financial records
- Prepare individual and small business tax returns
- Prepare monthly and year-end financial reports
- Calculate, record, and make required payroll deposits and filings

Accounting is a high growth area. Accounting graduates are eligible to take the Accreditation in Accountancy (ABA) and/or an Enrolled Agent (EA) exam to further support your educational background. There are many opportunities when you have an accounting degree. You have options!

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): August, January	EFFECTIVE: August 2018

ACCOUNTING

Associate Degree

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
	First Semester			***Grade of "C" or better for all (101) program course prerequisites***
101-100	Orientation to Accounting	2	1	
101-111	Accounting I	5	4	
101-121	Payroll Accounting	3	3	
101-149	Intro to QuickBooks	4	2	
801-136	English Composition 1 **OR**	3	3	
801-219	English Composition 1			
809-198	Introduction to Psychology	3	3	
	Total Hrs. /Week and Total Credits	**20 hrs.**	**16 cr.**	
	Second Semester			***Grade of "C" or better for all (101) program course prerequisites***
101-106	Accounting Spreadsheets	4	2	101-111 or concurrent
101-113	Accounting II	5	4	101-111
102-160	Business Law	3	3	
801-196	Oral/Interpersonal Communication	3	3	
804-134	Mathematical Reasoning **OR**	4	3	
804-189	Introductory Statistics	3		
	Total Hrs. /Week and Total Credits	**19 hrs.**	**15 cr.**	
	Third Semester			***Grade of "C" or better for all (101) program course prerequisites***
101-116	Intermediate Accounting	5	4	101-113
101-123	Income Tax I	5	4	101-111, or instructor approval
101-125	Cost Accounting	4	3	101-113
801-198	Speech **OR**	3	3	
801-223	English Composition 2			801-136 or 801-219 with C or better
	Total Hrs. /Week and Total Credits	**17 hrs.**	**14 cr.**	
	Fourth Semester			***Grade of "C" or better for all (101) program course prerequisites***
101-104	Database for Accounting	3	2	101-106
101-118	Managerial Accounting	3	3	101-116, 101-121, 101-123, 101-125
101-131	Accounting Systems	4	3	101-116, 101-150
101-160	Accounting Internship (128 hours) **OR**		2	101-116
101-126	Income Tax Preparation **OR**	4		Spring only, 101-123
101-133	Accounting for Government & Nonprofit Entities	2		Fall only, 101-113
101-163	Accounting Capstone	3	3	101-116, 101-121, 101-123, 101-125
809-195	Economics **OR**	3	3	
809-291	Principles of Microeconomics			
	Total Hrs. /Week and Total Credits	**21 hrs.**	**16 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 61

A grade of "C" or better is required in all program (101) courses.

If a student does not enroll in any courses at CVTC for two or more consecutive semesters, the student will be required to reapply with Admissions. Students must abide by any changes in admission requirements and degree requirements.

Agronomy Management - 10-093-9

Associate Degree - Two Years

Offered in Eau Claire • August entry date in Eau Claire

Description

If you're interested in technology, large equipment, and how it all works together then the Agronomy Management Program may be the right fit for you! This two-year Associates Degree will provide you with the necessary skills and hands on training to meet the needs of local businesses in the agronomy field.

The Agronomy Management Program gives you an opportunity to work with all of the latest technology used in agronomy. Along becoming familiar with the technology, you will learn business management skills, agronomy skills, and various equipment functions as well. While completing the Agronomy Management, you will complete the following certifications:

- Wisconsin Commercial Pesticide Applicator License
- Wisconsin Seed Treatment Certification
- Commercial Driver's License

Some of the jobs that you can expect after graduating from the Agronomy Management Program:

- Precision Farming Specialist
- Sales Agronomist
- Agriculture Equipment Salesperson
- Seed Salesperson
- Agronomist
- Cooperative Operations Manager

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): August	EFFECTIVE: August 2018

AGRONOMY MANAGEMENT

Associate Degree

Course Number	Course Title	Credits	Prerequisite(s)/Comments
	First Semester		
093-116	Introductory Soils	3	
093-110	Introduction to Agronomy	2	
093-112	Precision Farming	2	
093-114	Plant Protection Products	2	
093-118	Agriculture Equipment	2	
804-134	Mathematical Reasoning	3	
801-136	English Composition	3	
	Total Hrs./Week and Total Credits	**17 cr.**	
	Winter Term		
093-122	Nutrient Management	2	
458-308	CDL License Training – Pre-Trip	1	458-307, 458-309 or concurrent
	Total Hrs./Week and Total Credits	**3 cr.**	
	Second Semester		
093-120	Plant Science ***[1st 8 weeks]***	3	
093-124	Pest Management ***[1st 8 weeks]***	1	
091-188	Feed Analysis ***[1st 8 weeks]***	2	
458-307	CDL License Training-Online ***[1st 8 weeks]***	2	
801-196	Oral/Interpersonal Communication ***[1st 8 weeks]***	3	
093-126	Precision Field Applications 1 ***[2nd 8 weeks]***	1	Co-requisite: 458-308
458-309	CDL License Training – Lab ***[2nd 8 weeks]***	1	458-307, 458-308 or concurrent
	Total Hrs./Week and Total Credits	**14 cr.**	
	Summer Term		
093-130	Agronomy Internship	1	Program student
093-132	Crop Scouting	2	
	Total Hrs./Week and Total Credits	**3 cr.**	
	Third Semester		
006-140	Agribusiness Sales	2	
093-107	Precision Management	2	
093-134	Precision Field Applications 2	1	
093-136	Row Crop Management	2	
806-134	General Chemistry	4	
809-198	Introduction to Psychology	3	
	Total Hrs./Week and Total Credits	**14 cr.**	
	Winter Term		
006-130	Agribusiness Financial Management	2	
	Total Hrs./Week and Total Credits	**2 cr.**	
	Fourth Semester		
006-138	Agriculture Marketing ***[1st 12 weeks]***	2	
093-140	Fertilizer Systems & Technology ***[1st 12 weeks]***	2	
093-142	Agronomy Capstone Project ***[1st 12 weeks]***	1	
093-144	Crop Planning ***[1st 12 weeks]***	2	
809-195	Economics ***[1st 12 weeks]***	3	
	Total Hrs./Week and Total Credits	**10 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 62 **2.0 MINIMUM PROGRAM CUMULATIVE GPA REQUIRED FOR GRADUATION**

If a student does not enroll in any courses at CVTC for two or more consecutive semesters, the student will be required to reapply with Admissions. Students must abide by any changes in admission requirements and degree requirements.

Air Conditioning, Heating & Refrigeration Technology - 10-601-1

Associate Degree - Two Years

Offered in Eau Claire • August or January entry dates in Eau Claire

Description

This is a program and career area that draws on your mechanical ability and analytical skills and offers excellent employment opportunities - including career advancements in many HVAC/R- and energy-related occupations. The Air Conditioning, Heating, & Refrigeration Technology (ACHR) program prepares you for careers designing, installing, and maintaining air conditioning, heating, and refrigeration equipment. You'll also learn how to work with geothermal, solar, and other renewable energy equipment.

The first semester of instruction serves as an introduction to the industry:

- Gas, oil, and electric furnaces
- Basic refrigeration and air conditioning systems
- Principles of ACHR electricity

The rest of your program will focus on specific applications:

- Geothermal systems
- Solar heating
- Print reading
- Load calculations
- Solving technical problems
- CAD
- Air handling system design and installation
- Advanced temperature controls
- Hydronics
- HVAC systems design and drafting

After you graduate, you will be prepared to take the Environmental Protection Agency (EPA) Certification Exam for safe handling of refrigerants. The Industry Competency Exam (ICE) sponsored by the Air Conditioning and Refrigeration Institute for HVAC/R technicians is a requirement for all students.

Nationally there is a shortage of design, installation, and maintenance technicians, and an increasing need for technicians trained to work with alternative energy systems. This could be the program you need to launch your career!

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): August, January	EFFECTIVE: August 2018

AIR CONDITIONING, HEATING AND REFRIGERATION TECHNOLOGY

Associate Degree

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
	First Semester			
601-125	Safety – HVAC	2	1	Program student
601-105	Refrigeration Principles	4	2	601-106, 601-140, 601-148 or concurrent
601-106	Refrigeration Theory	2	1	
601-107	Heating Theory	2	1	
601-108	Principles of Gas Heat and Airflow	4	2	601-107, 601-140, 601-148 or concurrent
601-109	Principles of Oil, Electricity & Hydronic Heating	2	1	601-107, 601-140, 601-148 or concurrent
601-116	Principles of Air Conditioning	4	2	601-106, 601-140, 601-148 or concurrent
601-140	Electricity Theory	2	1	
601-145	Geothermal Applications	2	1	
601-148	Electricity Principles	4	2	601-140 or concurrent
801-196	Oral/Interpersonal Communication	3	3	
	Total Hrs./Week and Total Credits	**31 hrs.**	**17 cr.**	
	Second Semester			
601-118	Sustainability for HVAC	2	1	
601-121	HVAC/R Service & Applications	6	3	Program student, 601-105, 601-106, 601-116
601-122	HVACR Industry Skills	2	1	Program student
601-130	Sheet Metal Layout	2	1	
601-144	Solar/Wind Applications	4	2	
601-146	Schematic Wiring-HVACR	2	1	601-140, 601-148
601-147	Schematic Wiring-Troubleshooting	2	1	601-140, 601-146, 601-148 or concurrent
601-151	Technical Problems-HVAC	4	2	Program student, 601-107, 601-108, 601-109
601-161	HVAC Load Calculations & Psychrometrics	6	3	Program student
804-134	Mathematical Reasoning	4	3	
	Total Hrs./Week and Total Credits	**34 hrs.**	**18 cr.**	
	Third Semester			
601-112	Principles of Air Handling	6	3	601-107, 601-108, 601-109
601-114	Plan & Print Reading-HVAC	4	2	
601-119	Hydronic System Design	6	3	Program student
601-165	CAD-HVAC	6	3	601-114 or concurrent
804-113	College Technical Math 1A	4	3	
809-195	Economics	3	3	
	Total Hrs./Week and Total Credits	**29 hrs.**	**17 cr.**	
	Fourth Semester			
601-113	HVAC Systems Design	6	3	601-112, 601-114, 601-161; Co-requisite: 601-117
601-117	Drafting HVAC	4	2	601-165; Co-requisite: 601-113
601-143	Advanced HVAC Controls	4	2	601-146, 601-147
801-136	English Composition 1	3	3	
806-143	College Physics 1	4	3	804-134
809-199	Psychology of Human Relations	3	3	
	Total Hrs./Week and Total Credits	**24 hrs.**	**16 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 68 **2.0 MINIMUM PROGRAM CUMULATIVE GPA REQUIRED FOR GRADUATION**

If a student does not enroll in any courses at CVTC for two or more consecutive semesters, the student will be required to reapply with Admissions. Students must abide by any changes in admission requirements and degree requirements.

Alcohol and Other Drug Abuse - 10-550-1

Associate Degree - Two Years

Offered in Eau Claire • January entry date in Eau Claire

Description

If your healthy lifestyle includes low-risk choices regarding substance use, the ability to work independently and within a team, and a desire to use your written and oral communication skills to help others, the Alcohol & Other Drug Abuse program could be the career training for you.

AODA associates are held to high ethical standards to inspire respect, trust, and confidence. Your conduct must never compromise your ability to fulfill your professional responsibilities. To succeed, your skills and character must include

- Emotional stability, maturity, self-awareness, self-discipline, and personal responsibility
- A minimum of six months free of substance use-related problems
- An interest in working with people and appreciation of cultural diversity
- Strong reading, writing, and abstract thinking skills

This program offers you opportunities to learn skills you'll use every day in your career such as:

- Clinically evaluate for substance use disorders and treatment needs
- Facilitate referral to meet needs
- Demonstrate case management skills
- Demonstrate counseling skills with individuals, groups, and families
- Provide culturally relevant education related to substance use
- Document and maintain clinical records per agency, federal and state guidelines
- Adhere to accepted ethical and behavior conduct

Program graduates are licensed in Wisconsin as Substance Abuse Counselors-In Training, qualifying for entry-level employment in a rewarding career.

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): January	EFFECTIVE: January 2019

ALCOHOL AND OTHER DRUG ABUSE

Associate Degree

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
	First Semester			
550-108	Substance Use: Risk & Reality (T)	3	3	Spring only
550-113	Introduction to the Prevention and Treatment Profession (T)	3	3	Program student, Spring only
550-114	Ethics and Public Policy (T)	3	3	Program student, Spring only
801-136	English Composition 1 (T) **OR**	3	3	
801-219	English Composition 1 (T)			
801-196	Oral/Interpersonal Communication (T) **OR**	3	3	
810-201	Fundamentals of Speech (T)			
809-198	Introduction to Psychology (T) **OR**	3	3	
809-251	General Psychology (T)			
	Total Credits		**18 cr.**	
	Second Semester (Summer)			
806-177	General Anatomy & Physiology (T, L)	10	4	High School Chemistry or 836-133 with a "C" or better
	Total Credits		**4 cr.**	
	Third Semester			
550-102	SUD Counseling/Interviewing (T, L)	4	3	Fall only, 550-108, 550-113, 550-114, 801-196 (or 810-201), 809-198 (or 809-251)
550-110	SUD Counseling Theory/Methods (T, L)	4	3	Fall only, 550-108, 550-113, 550-114, 801-136 (or 801-219), 809-198 (or 809-251)
550-122	Psychopharmacology (T)	3	3	Fall only, 550-108, 550-113, 550-114; 806-177, 809-198 (or 809-251)
550-154	Culturally Skilled Counseling (T)	3	3	Fall only. 550-108, 550-113, 550-114, 809-198 (or 809-251), (550-102, 550-110 or concurrent)
801-197	Technical Reporting (T)	3	3	801-136 (or 801-219)
809-188	Developmental Psychology (T)	3	3	
	Total Credits		**18 cr.**	
	Fourth Semester			
550-104	Internship I (C)	8	2	Spring only, 550-102, 550-110, 550-122, 550-154, 809-188 (550-111 or concurrent)
550-111	Group Facilitation (T, L)	3	2	Spring only, 550-102, 550-110, 550-154, 809-188
550-115	SUD Assessment and Treatment Planning (T, L)	4	3	Spring only, 550-102, 550-110, 550-122, 550-154, 801-197, 809-188 (550-121, 550-160 or concurrent)
550-121	Information Management for Prevention and Treatment (T, L)	3	2	Spring only, 550-102, 550-110, 801-197
550-160	SUDs and Mental Disorders (T)	3	3	Spring only, 550-102, 550-110, 550-122, 550-154, 809-188
550-161	SUDs and Criminality (T)	3	3	Spring only, 550-102, 550-110, 550-122, 550-154, 809-188
809-196	Introduction to Sociology (T) **OR**	3	3	
809-271	Introductory Sociology (T)			
	Total Credits		**18 cr.**	
	Fifth Semester			
550-106	Internship Advanced I (C) ***[weeks 1-8]***	24	3	Fall only, 550-104, 550-111, 550-115, 550-121, 550-122, 550-160, 809-196 (or 809-271), [550-120 or concurrent], Co-requisites: 550-107, 550-150
550-107	Internship Advanced II, (C) ***[weeks 9-16]***	24	3	Fall only, Co-requisites: 550-106, 550-150
550-120	Family and Community Systems, (T, L)	4	3	Fall only, 550-102, 550-110, 550-111, 809-196 (or 809-271)
550-150	Issues-Internship II Seminar, (T) (48 hours)		3	Fall only, Co-requisites: 550-106, 550-107
	Total Credits		**12 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 70 **A GRADE OF "C" OR BETTER IS REQUIRED IN ALL COURSES**

T = Theory L = Lab C = Clinical

IMPORTANT: Successful completion of all course prerequisites is necessary in order to take courses in the required sequence and progress in the program each semester. Unsuccessful completion of 550-104, 550-106, or 550-107 will prevent a student from continuing in the program, resulting in the need to reapply to the program after obtaining program director approval.

If a student does not enroll in any courses at CVTC for two or more consecutive semesters, the student will be required to reapply with Admissions. Students must abide by any changes in admission requirements and degree requirements.

Program students who interrupt their program for any reason must meet with an academic advisor and will be re-admitted to core classes only on a space-available basis after continuing students have registered.

Animal Science Management - 10-091-7

Associate Degree - Two Years

Offered in Eau Claire • August entry date in Eau Claire

Description

Students earning an associate degree in Animal Science Management at Chippewa Valley Technical College (CVTC) are qualified for a wide variety of exciting careers in the dairy, beef, or specialty livestock industry with competitive salaries. Students will participate in technical, hands-on training through CVTC's partnership with over 30 different regional farms used as learning labs. Graduates will find employment in Ag sales, herd management, reproduction and genetics, nutrition, consulting, and financial planning. Recent advances in livestock management, precision dairy practices, and other areas relating to animal production, care, and use underline the significant changes in today's animal agriculture and its growing importance to society as a whole.

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): August	EFFECTIVE: August 2018

ANIMAL SCIENCE MANAGEMENT

Associate Degree

Course Number	Course Title	Credits	Prerequisite(s)/Comments
	First Semester		
091-180	Animal Science	3	
091-110	Livestock Evaluation and Judging	2	
091-112	Livestock Modernization	2	
006-105	Industry Skills	2	
804-134	Mathematical Reasoning	3	
801-136	English Composition	3	
	Total Hrs./Week and Total Credits	**15 cr.**	
	Winter Term		
091-122	Animal Breeding and Genetics	2	
	Total Hrs./Week and Total Credits	**2cr.**	
	Second Semester		
091-120	Livestock Housing ***[1st 12 weeks]***	2	
091-188	Feed Analysis ***[1st 8 weeks]***	2	
091-184	Herd Health ***[1st 12 weeks]***	3	
802-103	Spanish for the Workforce ***[1st 8 weeks]***	2	
801-196	Oral/Interpersonal Communication ***[1st 8 weeks]***	3	
	Total Hrs./Week and Total Credits	**12 cr.**	
	Summer Term		
091-130	Animal Science Internship	1	Program student
	Total Hrs./Week and Total Credits	**1 cr.**	
	Third Term		
006-140	Agriculture Sales	2	
091-132	Ruminant Nutrition and Feeding	2	
091-134	Advanced Reproduction	2	
091-121	Livestock Records Software	3	
806-134	General Chemistry	4	
809-198	Introduction to Psychology	3	
	Total Hrs./Week and Total Credits	**16 cr.**	
	Winter Term		
006-130	Agribusiness Financial Management	2	
	Total Hrs./Week and Total Credits	**2 cr.**	
	Fourth Term		
091-140	Herd Management ***[1st 12 weeks]***	2	
091-142	Lactation and Physiology ***[1st 12 weeks]***	2	
091-144	Transition and Replacement Animals ***[1st 12 weeks]***	1	
091-145	Special Livestock University ***[1st 12 weeks]***	1	
091-146	Animal Science Seminar ***[1st 12 weeks]***	1	
091-147	Animal Science Capstone ***[1st 12 weeks]***	2	
809-195	Economics ***[1st 12 weeks]***	3	
	Total Hrs./Week and Total Credits	**12 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 60 **2.0 MINIMUM PROGRAM CUMULATIVE GPA REQUIRED FOR GRADUATION**

If a student does not enroll in any courses at CVTC for two or more consecutive semesters, the student will be required to reapply with Admissions. Students must abide by any changes in admission requirements and degree requirements.

Architectural Structural Design - 10-614-7

Associate Degree - Two Years

Offered in Eau Claire • August entry date in Eau Claire

Description

If you enjoy working with computer applications and have an interest in construction, consider the Architectural Structural Design program.

As a graduate, you would be part of the team that completes the complex plans needed before construction of major buildings. Your responsibilities could cover a wide range:

- Design and prepare site plans for residential and commercial buildings
- Design and prepare construction documents (architectural and structural) for wood frame, masonry, concrete, and steel frame buildings
- Design and prepare presentation drawings for proposed buildings and present ideas
- Prepare plans, schedules, and details using AutoCAD, and Revit software systems
- Prepare structural steel shop drawings and erection plans for commercial buildings
- Select and prepare the required design calculations for concrete and steel beams and columns, footings, floor slabs, and open web steel joists

Your training will help you understand technical data and the proper use of construction materials:

- Architectural drafting
- Structural drafting
- Surveying
- Structural analysis
- Construction in concrete/steel
- Estimating

Traditionally, graduates find employment in engineering offices. The program emphasizes the development of computer-aided drafting skills, providing you with the skills you need to succeed in today's highly competitive job market. This could be the career area you're looking for!

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): August	EFFECTIVE: August 2018

ARCHITECTURAL STRUCTURAL DESIGN

Associate Degree

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
	First Semester			
614-164	CAD Architecture	5	3	Fall only, Program student
614-100	Drafting Fundamentals/Wood Frame Const.	6	3	Fall only, Program student
614-125	Mechanical Systems	4	3	Fall only, Program student, 614-100 and 614-164 or concurrent
614-140	Structural Analysis	5	4	Fall only, Program student
804-115	College Technical Mathematics 1	5	5	
	Total Hrs./Week and Total Credits	**25 hrs.**	**18 cr.**	
	Second Semester			
614-111	Architectural Drafting 1	5	3	Spring only, 614-100, 614-140, 614-125 and (606-161 or 614-164); Co-requisite: 614-117
614-117	Revit Architecture	5	3	Spring only, 614-100 and (606-161 or 614-164), Co-requisite: 614-111
614-123	Construction Steel	5	3	Spring only, 614-100, 614-140, 614-125 and (606-161 or 614-164), and 614-117 or concurrent
614-124	Construction Concrete	4	2	Spring only, 614-100, and (606-161 or 614-164)
801-136	English Composition 1	3	3	
804-116	College Technical Mathematics 2	4	4	804-115
	Total Hrs./Week and Total Credits	**26 hrs.**	**18 cr.**	
	Third Semester			
614-113	Architectural Drafting 2	5	3	Fall only, 614-111, 614-117, 614-123, 614-124, 614-140; Co-requisite 614-155
614-148	Structural Drafting 1	6	4	Fall only, 614-111, 614-123, 614-124, 804-116
614-152	Construction Methods	4	2	Fall only, 614-140, 614-111, 614-124
614-155	Surveying & Site Planning	6	4	Fall only, 614-111, 804-116; Co-requisite 614-113
806-154	General Physics 1	5	4	804-115
	Total Hrs./Week and Total Credits	**26 hrs.**	**17 cr.**	
	Fourth Semester			
614-149	Structural Drafting 2	4	2	Spring only, 614-148
614-151	Technical Problems-Architectural Structural	7	3	Spring only, 614-113, 614-148, 614-152, 614-155
614-160	Model Based Steel Detailing	5	3	Spring only, 614-140, 614-148
801-197	Technical Reporting	3	3	801-136
809-195	Economics ***(See Tips for other options)***	3	3	
809-199	Psychology of Human Relations	3	3	
	Total Hrs./Week and Total Credits	**25 hrs.**	**17 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 70 **2.0 MINIMUM PROGRAM CUMULATIVE GPA REQUIRED FOR GRADUATION**

If a student does not enroll in any courses at CVTC for two or more consecutive semesters, the student will be required to reapply with Admissions. Students must abide by any changes in admission requirements and degree requirements.

Automation Engineering Technology - 10-664-1

Associate Degree - Two Years

Offered in Eau Claire • August or January entry dates in Eau Claire

Description

The Automation Engineering Technology program can prepare you for a career in servicing, installing, and repairing the automated equipment used in manufacturing, food and ethanol processing, and mining. Automated manufacturing processes are increasing in speed and complexity. For you, this means exciting jobs with great pay!

This could be a good career area for you if you can work in a team environment but also can solve problems and function on your own. You'll need to find solutions rapidly while working on complex mechanical and electrical systems. Successful students have good mechanical aptitude and a curiosity about how things work.

In addition to classroom instruction, you will work on state-of-the-art equipment used in the field. The Automation Engineering Technology program can help you develop skills that apply in several career areas:

- Electronics
- Pneumatics
- Hydraulics
- Computers
- Programmable Logic Controllers (PLC)
- Robotics
- Mechanics
- Other automated equipment

Graduates of this program work on equipment that makes everything from paper products to electronics to food products. If you're interested in gaining the foundation for a lifetime of opportunities in high-tech manufacturing, processing, and mining, this could be the program for you.

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): August, January	EFFECTIVE: August 2018

AUTOMATION ENGINEERING TECHNOLOGY

Associate Degree

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
	First Semester			
605-107	Basic Electronics **OR**	5	3	
605-110	Basic Electronics: DC/AC **AND**	4	2	
605-111	Basic Elec: Reactive Components	2	1	605-110 or concurrent
606-185	Blueprint Reading	2	1	
612-101	Related Fluid Power	4	2	
620-101	Automated Processes	3	2	
620-155	Industrial Electronics I **OR**	3	2	
620-107	Industrial Electronics Basics I **AND**	2	1	
620-108	Industrial Electronics Basics II	2	1	620-107 or concurrent
620-193	Electronic Software Applications	4	2	
804-113	College Technical Math 1A	4	3	
	Total Hrs./Week and Total Credits	**25-27 hrs.**	**15 cr.**	
	Second Semester			
605-108	Devices and Digital **OR**	5	3	605-107 or 605-111
605-120	Devices **AND**	4	2	605-107 or 605-111
605-130	Digital Electronics	2	1	605-107 or 605-111
620-135	PLC Introduction	3	2	620-155 or 620-108 or instructor permission
620-144	Applied EM Machine Principles	4	2	
620-156	Industrial Electronics II	3	2	605-107 (or 605-111), 620-155 (or 620-108), 620-193
801-136	English Composition 1	3	3	
806-154	General Physics I	5	4	804-113
	Total Hrs./Week and Total Credits	**23 hrs.**	**16 cr.**	
	Third Semester			
605-109	Industrial Computer Technology	4	2	620-193
620-136	PLC Applications	6	3	620-135
620-145	Industrial Robotic Systems	4	2	620-156
620-158	Sensors	3	2	605-108 (or 605-120 and 605-130), 620-156 or concurrent
620-191	Motion Control Applications	5	3	605-108 (or 605-120 and 605-130), 620-156
809-199	Psychology of Human Relations	3	3	
	Total Hrs./Week and Total Credits	**25 hrs.**	**15 cr.**	
	Fourth Semester			
605-152	SCADA Concepts	4	2	620-136
620-146	Machine Troubleshooting Techniques ***[1st 8 weeks]***	8	2	612-101, 620-136, 620-144, 620-145
620-147	Control Applications ***[2nd 8 weeks]***	8	2	612-101, 620-136, 620-144, 620-145
620-148	Automated Systems Interfacing	8	4	620-136
620-150	Instrumentation	3	2	620-156, 620-158
801-197	Technical Reporting	3	3	801-136
809-195	Economics	3	3	
	Total Hrs./Week and Total Credits	**29 hrs.**	**18 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 64 **2.0 MINIMUM PROGRAM CUMULATIVE GPA REQUIRED FOR GRADUATION**

If a student does not enroll in any courses at CVTC for two or more consecutive semesters, the student will be required to reapply with Admissions. Students must abide by any changes in admission requirements and degree requirements.

Business Management - 10-102-3

Associate Degree - Two Years

Offered in Eau Claire and River Falls • August or January entry dates in Eau Claire, August entry date in River Falls

Description

If you're interested in business, enjoy leadership roles, like being in charge, and are seeking a broad business background, the Business Management program could be a good match for you.

The program is designed to enhance your ability to make sound business decisions. You'll learn how to effectively plan, organize, direct, and evaluate business functions essential to efficient and productive business organizations.

Look around you: business leaders are found in nearly all work settings in virtually every sector of the economy. Business management salaries vary by company and position. Most graduates begin in entry-level positions and advance through the ranks of the organization. Some graduates have developed their own successful businesses.

So what are you waiting for?

The Business Management program can help you develop a broad range of skills that you can use to launch your professional career. This could be the program for you!

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): August, January	EFFECTIVE: August 2018

BUSINESS MANAGEMENT – Eau Claire

Associate Degree

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
	First Semester			
102-112	Principles of Management	3	3	
102-133	Leadership for Business Excellence	3	3	
104-102	Marketing Principles	3	3	
116-193	Introduction to Human Resources	3	3	
801-136	English Composition 1	3	3	
	Total Hrs./Week and Total Credits	**15 hrs.**	**15 cr.**	
	Second Semester			
102-109	Business Analytics	3	3	
102-113	Business Ethics	3	3	
102-130	Innovative Business Mindset **OR**	3	3	
104-104	Sales Presentations			
801-196	Oral/Interpersonal Communication **OR**	3	3	
801-198	Speech			
804-134	Mathematical Reasoning **OR**	4	3	
804-189	Introductory Statistics	3		
	Total Hrs./Week and Total Credits	**16 hrs.**	**15 cr.**	
	Third Semester			
101-105	Intro to Accounting **OR**	3	3	
101-111	Accounting 1	5	4	
102-150	Global Business	3	3	
102-160	Business Law	3	3	
102-188	Project Management	3	3	
809-198	Introduction to Psychology	3	3	
	Total Hrs./Week and Total Credits	**15-17 hrs.**	**15-16 cr.**	
	Fourth Semester			
101-172	Business Finance	3	3	101-105 or 101-111 with C- or better
102-114	Managing Operations	3	3	
102-116	Strategic Management	3	3	
102-118	Business Management Capstone	3	3	102-109, 102-112, 102-113, 102-133, 102-188
102-115	Business Management Internship		1	Program student, 102-109, 102-112, 102-113, 102-188, 102-133, (102-116, 102-118 or concurrent)
809-195	Economics	3	3	
	Total Hrs./Week and Total Credits	**15 hrs.**	**16 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 61-62 **2.0 MINIMUM PROGRAM CUMULATIVE GPA REQUIRED FOR GRADUATION**

If a student does not enroll in any courses at CVTC for two or more consecutive semesters, the student will be required to reapply with Admissions. Students must abide by any changes in admission requirements and degree requirements.

Criminal Justice - 10-504-5

Associate Degree - Two Years

Offered in Eau Claire and River Falls • August entry date in Eau Claire and River Falls

Description

The criminal justice field is becoming increasingly complex and important. This career area needs people who have good skills and highly-developed personal strengths:

- View toward community service
- Motivated
- High ethical and moral standards
- Strong written and oral communication skills

The program provides the foundation for your career as a law enforcement officer at the municipal, county, or state level. Your career path could include serving as a correctional officer, working for a private investigation agency, or providing security for retail, commercial, or industrial establishments.

The program includes related general education courses and criminal justice courses. You will receive theoretical and practical information on various types of law, community policing, corrections, and criminal justice ethics. Other courses will strengthen your ability to interact with the public, work with people from diverse backgrounds, and communicate in a professional manner.

As you complete the coursework, you'll be working toward the 720-hours of training required for certification by the Wisconsin Department of Justice, Training and Standards Bureau. You would have to meet criteria and apply for the 720 Law Enforcement Academy once you have obtained 60 college credits in your 4th semester.

Opportunities for employment are good, and most employment areas offer good chances for advancement. This could be the training you need to begin a rewarding career in law enforcement or other careers in the criminal justice field.

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): August	EFFECTIVE: August 2018

CRIMINAL JUSTICE

Associate Degree

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
	First Semester			
504-900	Introduction to Criminal Justice	3	3	Fall only
504-901	Constitutional Law	3	3	Fall only
504-170	Introduction to Corrections	3	3	Fall only
801-136	English Composition 1	3	3	
809-122	Introduction to American Government	3	3	
	Total Credits		**15 cr.**	
	Second Semester			
504-903	Professional Communications	3	3	Spring only, 504-900, 504-901
504-902	Criminal Law	3	3	Spring only, Program student, 504-900, 504-901
504-907	Community Policing Strategies	3	3	Spring only, 504-900, 504-901
801-196	Oral/Interpersonal Communication	3	3	
801-197	Technical Reporting	3	3	801-136
809-198	Introduction to Psychology	3	3	
	Total Credits		**18 cr.**	
	Third Semester			
504-904	Juvenile Law and Justice	3	3	Fall only, 504-900, 504-901, 504-902
504-905	Report Writing	3	3	Fall only, 504-901, 504-902, 801-136, 801-197
504-906	Criminal Investigations I	3	3	Fall only, 504-901, 504-902, 504-903
504-103	Law Enforcement Employment Strategies **OR**	4	3	Program student
504-162	Contemporary Issues in Criminal Justice **OR**	3		Fall only
802-211	Spanish 1	4	4	
809-172	Intro to Diversity Studies	3	3	
809-196	Introduction to Sociology	3	3	
	Total Credits		**18-19 cr.**	
	Fourth Semester			
504-107	Law Enforcement Crisis Management	3	3	Spring only, Program student, 504-900, 504-901, 504-903, 504-905, 504-907
504-908	Traffic Theory	3	3	Spring only
504-121	Patrol Procedures	3	3	Program student, 504-903, 504-906, 504-907; Co-requisite: 504-908
504-909	Criminal Investigations II	3	3	504-901, 504-902, 504-903, 504-904, 504-905, 504-906
804-134	Mathematical Reasoning	4	3	
504-166	Criminal Justice Internship ***[Summer only]*** **OR**	16	3	Program student, 504-900, 504-901, 504-902, 504-907, 504-170
504-910	LE Academy Prep **OR**	2	2	Program student
809-159	Abnormal Psychology	3	3	
	Total Credits		**17-18 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 68-70 **2.0 MINIMUM PROGRAM CUMULATIVE GPA REQUIRED FOR GRADUATION**

If a student does not enroll in any courses at CVTC for two or more consecutive semesters, the student will be required to reapply with Admissions. Students must abide by any changes in admission requirements and degree requirements.

DeptChair/PgmDir: TBISHOP AssocDean: EANDERSON AcadAdvisor: JMOLDENHAUER (EC), CTHAO (RF) PgmAssist: JALCANTAR
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Culinary Management - 10-316-1

Associate Degree - Two Years

Offered in Eau Claire • August or January entry dates in Eau Claire

Description

The Culinary Management associate degree will prepare diversified culinarians to implement theory and management skill sets towards professional food preparation and service standards in an ever demanding marketplace. Students will learn basic and advanced culinary technique, menu planning, beverage management, restaurant operations, nutrition, purchasing, cost control, and food service supervision. A required internship will allow the practice of these skill demonstrations in a program mentor's location. Graduates have a number of superior employment opportunities locally or wherever their career requirements may lead.

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): August or January	EFFECTIVE: August 2018

CULINARY MANAGEMENT

Associate Degree

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
	First Semester			
316-101	Food Theory	3	3	Program student
316-102	Introduction to Culinary	10	5	Program student
316-105	Food Safety & Sanitation	2	2	Program student
316-107	Beverage Management	2	2	Program student
804-134	Mathematical Reasoning **OR**	4	3	
804-189	Introductory Statistics	3		
	Total Hrs./Week and Total Credits	**20-21 hrs.**	**15 cr.**	
	Second Semester			
316-111	Advanced Culinary Arts	10	5	316-101, 316-102, 316-105
316-112	Garde Manger	6	3	Program student
316-114	Purchasing & Receiving	2	2	Program student
316-116	Menu Design & Development	2	2	Program student
801-196	Oral/Interpersonal Communication	3	3	
	Total Hrs./Week and Total Credits	**23 hrs.**	**15 cr.**	
	Third Semester			
102-112	Principles of Management	3	3	
116-193	Introduction to Human Resources	3	3	
316-121	Restaurant Operations BOH	6	3	316-111
809-198	Introduction to Psychology	3	3	
	Elective		3	
	Total Hrs./Week and Total Credits	**18 hrs.**	**15 cr.**	
	Fourth Semester			
316-130	Nutrition	2	2	Program student
316-132	Cost Control	2	2	Program student
316-134	Restaurant Operations FOH	6	3	316-121
316-136	Culinary Arts Internship (144 hours)		2	Program student, 316-102, 316-105
801-136	English Composition 1	3	3	
809-103	Think Critically & Creatively **OR**	3	3	
809-166	Introduction to Ethics: Theory & Application			
	Total Hrs./Week and Total Credits	**16 hrs.**	**15 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 60 **2.0 MINIMUM PROGRAM CUMULATIVE GPA REQUIRED FOR GRADUATION**

If a student does not enroll in any courses at CVTC for two or more consecutive semesters, the student will be required to reapply with Admissions. Students must abide by any changes in admission requirements and degree requirements.

Dental Hygienist - 10-508-1

Associate Degree - Two Years

Offered in Eau Claire • August entry date in Eau Claire

Description
The Dental Hygienist program is a good option if you are seeking a career in the health field, have good organizational skills, enjoy working with people, and are detail-oriented.

During your educational program, you will work as a member of a dental health team and learning in CVTC's very own operational dental clinic, focusing on the assessment, diagnosis, treatment planning, implementation, evaluation, and documentation of dental disease as well as prevention of dental disease. You will:

- Perform oral inspections
- Remove deposits and stains from teeth
- Learn radiographic (xray) techniques using digital sensors as well as analog or traditional film-based xrays
- Counsel patients in preventative dental care

There is also a service-learning requirement, allowing you to receive a broad base of dental experience in general dentistry as well as specialty areas, giving you a better understanding of the array of dental options available to patients.

The program prepares you to take the national, regional, and state practical exams that are required for you to be licensed. Graduates of the program are held to high standards. They must:

- Meet the dental health needs of diverse populations
- Customize and proceed with emergency care protocol based on recognizing symptoms of medical/dental emergencies
- Use the most current infection control guidelines and safety precautions in all laboratory and clinical settings
- Apply principles of dental practice management as a member of a dental health team
- Demonstrate ethical and professional behavior in all roles as a dental hygienist

Graduates are working in public and private dental practices, hospitals, community dental health facilities, and in research. Job prospects are expected to remain excellent. You have opportunities!

This program is accredited by the Commission on Dental Accreditation of the American Dental Association.

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): August	EFFECTIVE: August 2018

DENTAL HYGIENIST

Associate Degree

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
	First Semester (Summer)			
806-177	General Anatomy and Physiology (T, L)	10	4	High School Chemistry with a "C" or better (or 836-133 or concurrent)
	Total Hrs./Week and Total Credits		**4 cr.**	
508-101	Dental Health Safety (L) (August, 32 hours) ***Internet and on-campus lab***	11	1	Program student, ***must be completed prior to program start (See tip sheet, computer skills are strongly recommended)***
	Second Semester			
508-102	Oral Anatomy, Embryology, Histology (T, L)	5	4	Program student, 806-177, (508-101, 806-186, 806-197 or concurrent)
508-103	Dental Radiography (T, C)	4	2	Program student, 806-177, (508-101, 508-102, 806-186, 806-197 or concurrent)
508-105	Dental Hygiene Process 1 (T, C)	8	4	Program student, 806-177, (508-101, 508-102, 508-103, 806-186, 806-197 or concurrent)
806-186	Introduction to Biochemistry (T, L)	5	4	
806-197	Microbiology (T, L)	5	4	806-177
	Total Hrs./Week and Total Credits	**27 hrs.**	**19 cr.**	
	Third Semester			
508-106	Dental Hygiene Process 2 (T, C)	10	4	508-102, 508-103, 508-105
508-108	Periodontology (T,L)	3	3	Program student, 508-102, 508-103, 806-186, 806-197, (508-106, 508-111 or concurrent)
508-109	Cariology (T)	1	1	Program student, 806-186, 806-197, (508-106 or concurrent)
508-110	Nutrition and Dental Health (T)	2	2	Program student, 806-186
508-111	General and Oral Pathology (T)	3	3	Program student, 508-102, 508-103, 806-177, (508-106 or concurrent)
801-136	English Composition 1 (T) **OR**	3	3	
801-219	English Composition 1 (T)			
	Total Hrs./Week and Total Credits	**23 hrs.**	**16 cr.**	
	Fourth Semester			
508-112	Dental Hygiene Process 3 (T, C)	13	5	508-106, 508-108, 508-109, 508-110, 508-111
508-113	Dental Materials (T, L)	3	2	508-101, (508-102, 508-103 or concurrent)
508-114	Dental Pharmacology (T)	2	2	806-186, 806-197, 508-106, (508-112 or concurrent)
508-115	Community Dental Health (T)	2	2	508-112 or concurrent
809-198	Introduction to Psychology (T)	3	3	
	Total Hrs./Week and Total Credits	**23 hrs.**	**14 cr.**	
	Fifth Semester			
508-107	Dental Hygiene Ethics and Professionalism (T)	1	1	Program student, 508-112; Co-requisite: 508-117
508-117	Dental Hygiene Process 4 (C)	12	4	508-112, 508-113, 508-114, 508-115
508-118	Dental Anxiety & Pain Management (T, L)	3	2	Program student, 508-102, 508-103, 508-112, 508-114
508-168	Health Career Occupations (T)	1	1	Program student, 508-112; Co-requisite: 508-117
801-196	Oral/Interpersonal Communication (T) **OR**	3	3	
801-198	Speech (T)			
809-172	Intro to Diversity Studies (T) **OR**	3	3	
809-196	Introduction to Sociology (T)			
809-188	Developmental Psychology (T)	3	3	
	Total Hrs./Week and Total Credits	**26 hrs.**	**17 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 70 **A GRADE OF "C" OR BETTER IS REQUIRED IN ALL COURSES**

T = Theory/Lecture L = Lab C = Clinical

If a student does not enroll in any courses at CVTC for two or more consecutive semesters, the student will be required to reapply with Admissions. Students must abide by any changes in admission requirements and degree requirements. Program students who interrupt their program for any reason must meet with an academic advisor and apply to the Re-entry (R list), and will be admitted to core classes on a space available basis.
If a student is not successful in 508-102, 508-103, 508-105, the student will be required to reapply for program admission.

Dental Hygienist is a full time program. When a student is admitted as a program student, they must complete the 508 core courses as outlined on this program requirement sheet.

Diagnostic Medical Sonography - 10-526-2

Associate Degree - Two Years

Offered in Eau Claire • August entry date in Eau Claire

Description

The Diagnostic Medical Sonography (DMS) program can prepare you for entry-level employment in a general ultrasound department. Duties of a sonographer include performing abdominal, obstetrical, and gynecologic imaging; superficial structure imaging; and limited vascular ultrasound imaging.

Sonographers operate high-technology equipment while working with patients who may be sick, disabled, and/or dependent. You must apply knowledge of anatomy, physiology, and pathophysiology to the human body for success in this program and in your profession. You will be required to complete a seven-month internship during the second year and must be prepared to relocate for that portion of your program.

Advanced standing status in this program is available for people with a minimum of two years of education in allied health, such as Radiography or Nursing.

Upon graduation, you will be prepared for and therefore eligible to complete the national registry examination in ultrasound physics, obstetrics/gynecology, and abdominal ultrasound (ARDMS Boards).

The program is accredited through the Committee on Allied Health Education and Accreditation/JRC-DMS, 6021 University Boulevard, Suite 500, Ellicott City, MD 21043; www.jrcdms.org; e-mail jrcdms@intersocietal.org.

Chippewa Valley Technical College

PROGRAM REQUIREMENT SHEET

www.cvtc.edu - 1-800-547-2882

START DATE(S): August	EFFECTIVE: August 2018

DIAGNOSTIC MEDICAL SONOGRAPHY

Associate Degree

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
806-177	*General Anatomy & Physiology (T, L) **OR**	5	4	High School Chemistry with a "C" or better (or 836-133 or concurrent)
806-207	*Anatomy & Physiology 1 (T, L)			806-245
	Total Hrs./Week and Total Credits	**5 hrs.**	**4 cr.**	
	First Semester			
501-101	Medical Terminology (T)	3	3	
526-200	Introduction to DMS (T, L)	4	3	Program student
526-210	Cross Sectional Anatomy (T)	2	2	Program student; 806-177 or 806-207
804-134	Mathematical Reasoning (T)	4	3	
806-154	General Physics 1 (T, L)	5	4	804-134
806-179	*Advanced Anatomy & Physiology (T, L) **OR**	5	4	806-177
806-208	*Anatomy & Physiology 2 (T, L)			806-207
	Total Hrs./Week and Total Credits	**23 hrs.**	**19 cr.**	
	Second Semester			
526-221	Sonography Physics 1(T,L)	4	3	Program student, 526-200, 526-210, 804-134, 806-154, (806-179 or 806-208); Co-requisite 526-207, 526-208, 526-223
526-207	Abdominal Sonography (T, L)	6	4	501-101, 526-210, (806-179 or 806-208)
526-208	OB/GYN Sonography 1 (T, L)	4	3	501-101, 526-208, (806-179 or 806-208)
526-223	Vascular Imaging 1 (T, L)	4	3	Program student; 526-200, 526-210, (806-179 or 806-208); Co-requisite 526-207, 526-208, 526-221
	Total Hrs./Week and Total Credits	**18 hrs.**	**13 cr.**	
	Third Semester (Summer)			
809-196	Introduction to Sociology (T)	6	3	
801-136	English Composition 1 (T)	6	3	
	Total Hrs./Week and Total Credits	**12 hrs.**	**6 cr.**	
	Fourth Semester			
526-211	Superficial Sonography (T, L)	3	2	526-207, 526-208; 526-210; Co-requisite 526-222
526-212	OB/GYN Sonography 2 (T, L)	4	3	526-208; Co-requisite 526-203, 526-222
526-222	Sonography Physics 2 (T)	2	2	Program student, 526-221; Co-requisite 526-211, 526-212, 526-224
526-203	Scanning With Proficiency (L) ***[2nd 8 weeks]***	4	1	Program student; Co-requisite 526-212
526-224	Vascular Imaging 2 (T, L)	4	3	Program student, 526-223; Co-requisite 526-222
801-196	Oral/Interpersonal Communication (T)	3	3	
809-198	Introduction to Psychology (T)	3	3	
	Total Hrs./Week and Total Credits	**23 hrs.**	**17 cr.**	
	Fifth Semester			
526-209	DMS Clinical Experience 1 (C) ***[1st 8 weeks, 320 total hours]***	40	2	Program student, 526-212; Co-requisite 526-226
526-226	DMS Clinical Experience 2 (C) ***[2nd 8 weeks, 319 total hours]***	40	4	Program student; Co-requisite 526-209
	Total Hrs./Week and Total Credits	**40 hrs.**	**6 cr.**	
	Sixth Semester (Summer Internship)			
526-215	DMS Clinical Experience 3 (C) ***[11 weeks, 440 total hours]***	40	4	Program student, 526-226
526-217	Registry Review (T)	2	1	
	Total Hrs./Week and Total Credits	**42 hrs.**	**5 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 70 **A GRADE OF "C" OR BETTER IS REQUIRED IN ALL COURSES.**

C =Clinical L = Lab T = Theory/Lecture

***Anatomy and Physiology Sequence Options**

806-177 General Anatomy & Physiology (or 806-207 Anatomy & Physiology 1) is an admission requirement and must be completed **prior to** placement on the waiting list. Students must complete 806-177 General Anatomy & Physiology and 806-179 Advanced Anatomy & Physiology as graduation requirements. Students planning to transfer to a four year university may choose to take the sequence of 806-207 Anatomy & Physiology 1 and 806-208 Anatomy & Physiology 2.

If a student does not enroll in any courses at CVTC for two or more consecutive semesters, the student will be required to reapply with Admissions. Students must abide by any changes in admission requirements and degree requirements. Unsuccessful completion of any first semester course (except Advanced A & P or A & P 2) will prevent a student from continuing in the program, resulting in the need to reapply to the program.

Program students who interrupt their program for any reason must meet with an academic advisor, apply to the Return list (R list), and will be admitted to core classes on a space available basis.

Digital Marketing - 10-104-8

Associate Degree - Two Years

Offered in Eau Claire • August entry date in Eau Claire

Description

This Digital Marketing program explores several aspects of the new digital marketing environment, including topics such as digital marketing analytics, search engine optimization, social media marketing, mobile marketing and promotional design. When you complete the program you will have a richer understanding of the foundations of the new digital marketing landscape and acquire a set of skills.

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): August	EFFECTIVE: August 2018

DIGITAL MARKETING

Associate Degree

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
	First Semester			
104-102	Marketing Principles	3	3	
104-112	Visual Design	4	4	
104-104	Sales Presentations	3	3	
801-136	English Composition 1	3	3	
809-198	Intro to Psychology	3	3	
	Total Hrs./Week and Total Credits	**16 hrs.**	**16 cr.**	
	Second Semester			
104-105	Marketing Research	4	3	104-102
104-162	Mobile Marketing	3	3	
104-164	Digital Video and Audio	4	4	104-112 or concurrent
104-109	Social Media Marketing Strategy	3	3	
104-125	Advertising	3	3	104-102
	Total Hrs./Week and Total Credits	**17 hrs.**	**16 cr.**	
	Third Semester			
104-127	Digital Marketing Campaigns	3	3	104-109
104-163	Social Media Policies and Ethics	2	2	
104-148	Digital Design Web Building	3	3	104-112 or concurrent
801-198	Speech	3	3	
804-134	Mathematical Reasoning **OR**	4	3	
804-189	Introductory Statistics	3		
	Total Hrs./Week and Total Credits	**15 hrs.**	**14 cr.**	
	Fourth Semester			
101-105	Introduction to Accounting **OR**	3	3	
101-111	Accounting 1	5	4	
104-174	Digital Marketing Analytics	2	2	
104-184	Personal Branding-Digital Age	2	2	Program student, 104-127; Co-requisite: 104-153
104-153	Digital Marketing Internship		1	Program student, 104-127; Co-requisite: 104-184
809-195	Economics	3	3	
809-172	Intro to Diversity Studies **OR**	3	3	
809-196	Intro to Sociology			
	Total Hrs./Week and Total Credits	**13-15 hrs.**	**14-15 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 60-61 **2.0 MINIMUM PROGRAM CUMULATIVE GPA REQUIRED FOR GRADUATION**

If a student does not enroll in any courses at CVTC for two or more consecutive semesters, the student will be required to reapply with Admissions. Students must abide by any changes in admission requirements and degree requirements.

Early Childhood Education - 10-307-1

Associate Degree - Two Years

Offered in Eau Claire • August entry date in Eau Claire

Description

If you're seeking a career that involves helping children learn about themselves and the world around them, the Early Childhood Education program might be for you.

As an early childhood teacher, you would play a vital role in the development of children. You'll work with children individually and in groups to help them improve their social skills and prepare for formal education.

In this program you'll study the physical, emotional, intellectual, and social development of children. You'll be placed with qualified teachers and child care providers in a variety of early childhood community settings, such as group and family child care settings, Head Starts, preschools, and kindergartens. You'll also help create and complete a class advocacy project to improve the status of children and their families in this region.

You may enroll in the program full- or part-time. If you already have experience working in child care or early childhood education, you could qualify for credit for prior learning. If you would like to continue your education, many of the credits you earn will transfer to selected universities toward a four-year degree in early childhood or elementary education.

The need for qualified, experienced childcare providers is strong. This is a career area that offers the rewards of working with children and the satisfaction of knowing you are helping them grow and develop. It could be just what you're looking for!

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): August	EFFECTIVE: August 2018

EARLY CHILDHOOD EDUCATION

Associate Degree

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
Complete 1st and 2nd semesters to graduate with the Child Care Services Technical Diploma (31-307-1)				
	First Semester			
307-148	ECE: Foundations of Early Childhood Education	3	3	Fall only; Program student
307-151	ECE: Infant and Toddler Development	3	3	Fall only; Program student
307-167	ECE: Health, Safety, and Nutrition	4	3	Fall only; Program student; Co-requisite 307-174
307-174	ECE: Introductory Practicum	9	3	Fall only, Program student; Co-requisite 307-167
801-136	English Composition 1	3	3	
	Total Hrs./Week and Total Credits	**22 hrs.**	**15 cr.**	
	Second Semester			
307-108	ECE: Early Language & Literacy	4	3	Spring only; Program student
307-110	ECE: Social Studies, Art, Music & Movement	4	3	Spring only; Program student
307-175	ECE: Preschool Practicum	9	3	Spring only; Program student, 307-174
307-188	ECE: Guiding Children's Behavior	3	3	Spring only; Program student
307-179	ECE: Child Development	3	3	Spring only; Program student
	Total Hrs./Week and Total Credits	**23 hrs.**	**15 cr.**	
Continue and complete 3rd and 4th semesters to graduate with the Early Childhood Education Associate Degree (10-307-1)				
	Third Semester			
307-112	ECE: STEM	4	3	Fall only; Program student
307-177	ECE: Intermediate Practicum	9	3	Fall only; Program student, 307-175
307-195	ECE: Family and Community Relationships	3	3	Fall only; Program student
804-134	Mathematical Reasoning	4	3	
	Elective **(See Tip Sheet)**		3	
	Total Hrs./Week and Total Credits	**23 hrs.**	**15 cr.**	
	Fourth Semester			
307-187	ECE: Children with Differing Abilities	3	3	Spring only; Program student
307-199	ECE: Advanced Practicum	9	3	Spring only; Program student, 307-177
801-196	Oral/Interpersonal Communication	3	3	
809-198	Introduction to Psychology	3	3	
809-172	Intro to Diversity Studies **OR**	3	3	
809-122	Introduction to American Government			
	Total Hrs./Week and Total Credits	**21 hrs.**	**15 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 60 **2.0 MINIMUM PROGRAM CUMULATIVE GPA REQUIRED FOR GRADUATION**

If a student does not enroll in any courses at CVTC for two or more consecutive semesters, the student will be required to reapply with Admissions. Students must abide by any changes in admission requirements and degree requirements.

Executive Assistant - 10-106-6

Associate Degree - Two Years

Offered in Eau Claire and River Falls • August entry date in Eau Claire, August entry date in River Falls

Description

Are you looking for a rewarding career? Do you like being active on the job? Are you a people person? Do you enjoy working with technology? Are you interested in a variety of tasks? If so, the Executive Assistant associate degree program is for you!

The job of an executive assistant combines organizational and people skills with an expertise in information processing and office technology. Executive assistants work with customers, perform general administrative/office duties, develop and prepare correspondence, conduct research, prepare presentations and events, process and transmit information, and assist others within the organization. The efficiency of any organization depends, in part, upon the executive assistants who are at the center of communications.

The Executive Assistant program provides you with up-to-date training for today's high tech office and also provides a strong background in customer service and office-related skills and knowledge. In this program students learn to be efficient and effective office employees through the application of business procedures (proofreading, telephone messaging, managing records, arranging meetings and travel, communicating, researching, etc.) and software skills (word processing, desktop publishing, spreadsheets, presentations, electronic calendars, and databases). During the final semester in the program, you'll gain valuable work experience in a local business office while completing your administrative professional internship.

As an executive assistant, you will be employed in one of the largest and fastest growing occupations. Potential careers are available in diverse settings such as education, government, insurance/investment, industrial/manufacturing, legal, medical and service organizations.

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): August	EFFECTIVE: August 2018

EXECUTIVE ASSISTANT

Associate Degree

Course Number	Course Title	Weeks	Hours/ Week	Credits	Prerequisite(s)/Comments
	First Semester				
103-102	Microsoft Office Suite	1-8	4	2	Fall only
106-150	Office Procedures 1 **OR**	1-4	4	1	Fall only
509-130	Medical Office Procedures	9-16	6	2	Program student
106-113	Customer Service Foundations	5-8	4	1	Fall only
106-152	Job Search-Business Support Professional 1	9-12	4	1	Fall only
106-114	Customer Communication Techniques	9-12	4	1	Fall only
106-115	Customer Care Strategies	13-16	4	1	Fall only
106-172	Microsoft Outlook	13-16	4	1	Fall only
101-105	Accounting, Intro to **OR**		3	3	
106-162	Legal Terminology **OR**		3		Fall only
501-101	Medical Terminology		3		
809-198	Intro to Psychology **OR**		3	3	
809-199	Psychology of Human Relations				
	Total Hours/Week & Total Credits		**14-20**	**14-15 cr.**	
	Second Semester				
106-122	Document Processing	1-4	8	1	Spring only, 103-102
106-139	Business Presentations	1-4	4	1	Spring only, 103-102
106-160	Office Procedures 2	5-8	4	1	Spring only
106-128	Business Words at Work 1	5-8	8	1	Spring only, 103-102
106-129	Business Words at Work 2	9-12	4	1	Spring only, 106-128 or concurrent
106-135	Business Support Professional Internship 1 *(64 hours)*	9-16	8	1	Spring only, 106-122, 106-130, 106-172 or concurrent
106-130	Business Words at Work 3	13-16	4	1	Spring only, 106-129 or concurrent
102-109	Business Analytics		3	3	
101-149	Intro to QuickBooks **OR**		4	2	
106-182	Legal Computing **OR**		2		Spring only
530-103	Medical Insurance & Billing		2		
809-103	Think Critically and Creatively		3	3	
	Total Hours/Week & Total Credits		**20-22**	**15 cr.**	
	Third Semester				
106-107	Publications	1-4	4	1	Fall only, 103-102
106-116	Database	5-8	8	1	Fall only, 103-102
106-179	Photo Editing	5-8	4	1	Fall only
106-167	Office Procedures 3	9-12	4	1	Fall only
106-178	Adobe Tools	9-12	4	1	Fall only
106-111	Executive Assistant Professional Development	13-16	4	1	Fall only
106-169	Applied Software	13-16	4	1	Fall only, 106-107, 106-116, 106-122, 106-139, 106-172, (106-124 and 106-125 or 102-109), or concurrent
102-188	Project Management		3	3	
101-121	Payroll Accounting **OR**		3	3	
102-112	Principles of Management **OR**		3	3	
116-193	Introduction to Human Resources		3	3	
801-136	English Composition 1		3	3	
	Total Hours/Week & Total Credits		**13-21**	**16 cr.**	
	Fourth Semester				
106-155	Job Search-Business Support Professional 2	1-4	4	1	Spring only, 106-152
106-100	Web Technologies 1	1-4	4	1	Spring only
106-176	Google Tools	1-4	4	1	Spring only
106-102	Web Technologies 2	5-8	4	1	Spring only, 106-100 or concurrent
106-112	Executive Assistant Career Planning	5-8	4	1	Spring only, 106-111
106-177	Apps for Productivity	5-8	4	1	Spring only
106-156	Records Management	9-12	4	1	Spring only
106-168	Business Support Professional Internship 2 *(64 hours)*	9-16	8	1	Spring only, 106-167, 106-169, (106-100, 106-102, 106-155, 106-156 or concurrent)
106-180	Executive Assistant Capstone	13-16	4	1	Spring only, 102-109, 102-188, 106-169, (106-100, 106-102, 106-107, 106-116, 106-156, 106-167, 106-176, 106-178, 106-179 or concurrent)
801-197	Technical Reporting		3	3	801-136
804-134	Mathematical Reasoning **OR**		4	3	
804-189	Introductory Statistics		3		
	Total Hours/Week & Total Credits		**19**	**15 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 60

2.0 MINIMUM PROGRAM CUMULATIVE GPA REQUIRED FOR GRADUATION

If a student does not enroll in any courses at CVTC for two or more consecutive semesters, the student will be required to reapply with Admissions. Students must abide by any changes in admission requirements and degree requirements.

FireMedic - 10-531-2

Associate Degree - Two Years

Offered in Eau Claire • June entry date in Eau Claire

Description

If you keep a clear head during emergencies and want to help people in need, the FireMedic program could be a good match for you.

This program prepares you for a career in fire service and paramedic arenas. It's a career area that requires highly developed character:

- Emotional stability and maturity
- Good verbal and written communication skills
- Good math and mechanical ability
- Ability to display good judgment under stress
- Caring for and empathy toward all people

Your coursework focuses on preparing you to respond to the diverse incidents of today's emergency service. Your program will include special courses in water, confined space, trench, high angle, and vehicle extrication rescue. When you finish the program you are prepared to take the National Registry for Emergency Medical Technician (EMT)-Paramedic, Firefighter I, and Fire Apparatus Driver Operator exam.

While most graduates seek employment as career firefighters/paramedics, you have other opportunities. Your combined training in firefighting and paramedics strengthens your chances for placement in a related field. Your career path may lead you to working as a member of an industrial emergency response team or serving as a representative for a fire/emergency medical equipment vendor. According to the U.S. Department of Labor, the employment outlook for firefighters and paramedics is good. You have opportunities and options!

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): June	EFFECTIVE: June 2018

FIREMEDIC

Associate Degree

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
	First Semester (Summer)			
503-105	Principles of Firefighting (L)	6	3	Program or pre-program student
503-107	Fire Dept. Apparatus Ops (T, L)	10	3	Program or pre-program student, 503-105, 806-177 or concurrent
806-177	General Anatomy & Physiology	5	4	High School Chemistry (or 836-133 or 806-134 with a C or better)
	Total Credits		**10 cr.**	
	Second Semester			
503-141	Special Rescue (L)	6	2	Program student, 503-105
531-911	EMS Fundamental (T)	2	2	Program student, 806-177 or concurrent
531-912	Paramedic Medical Principles (T)	4	4	Program student; 531-911 or concurrent
801-197	Technical Reporting (T)	6	3	801-136 with a C or better
806-179	Advanced Anatomy and Physiology (T, L)	5	4	806-177
	Total Credits		**15 cr.**	
	Third Semester			
531-913	Advanced Patient Assessment Principles (T, L)	4	3	Program student; 531-912 or concurrent
531-914	Advanced Pre-hospital Pharmacology (T, L)	4	3	Program student; 531-913 or concurrent
531-915	Paramedic Respiratory Management (T, L)	3	2	Program student; 531-914 or concurrent
531-916	Paramedic Cardiology (T, L)	5	4	Program student; 531-915 or concurrent
531-925	Paramedic Clinical Field 1A (C)		2	Program student; 531-916 or concurrent
	Total Credits		**14 cr.**	
	Fourth Semester (Summer)			
531-919	Paramedic Medical Emergencies (T)	4	4	Program student
531-926	Paramedic Clinical/Field 1B		1	Program student; 531-925 or concurrent
503-144	Advanced Firefighting Concepts	2	1	Program student; 503-919 or concurrent
	Total Credits		**6 cr.**	
	Fifth Semester			
531-920	Paramedic Trauma (T, L)	4	3	Program student; 531-919 or concurrent
531-921	Special Patient Populations (T, L)	4	3	Program student; 531-920 or concurrent
531-922	EMS Operations (T)	1	1	Program student; 531-921 or concurrent
531-924	Paramedic Clinical/Field 2 (C)	33	4	Program student
503-130	FireMedic Internship (C)	12	1	Program student; 503-105, 503-107, 503-141
531-190	FireMedic Capstone (T, L)	2	1	Program student; 531-922
	Total Credits		**13 cr.**	
	Sixth Semester			
801-136	English Composition 1 (T)	3	3	
809-172	Intro to Diversity Studies (T)	3	3	
809-198	Introduction to Psychology (T)	3	3	
	Total Credits		**9 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 67 **A GRADE OF "C" OR BETTER IS REQUIRED IN ALL COURSES**

T – Theory L – Lab C - Clinical

If a student does not enroll in any courses at CVTC for two or more consecutive semesters, the student will be required to reapply with Admissions. Students must abide by any changes in admission requirements and degree requirements.

Foundations of Teacher Education - 10-522-2

Associate Degree - Two Years

Offered Online • August entry date

Description

If you love working with school-aged children and feel a career in education is calling you, the Foundations of Teacher Education associate degree program at Chippewa Valley Technical College is right for you. The two-year program is offered online. They typical instructional assistant or paraprofessional will work under the supervision of a licensed teacher, performing a variety of tasks in the classroom including monitoring student's activities, tutoring, correcting papers, proctoring assessments, facilitating small group and supervising various classroom and school events. CVTC's Foundations of Teacher Education degree program is convenient, affordable and flexible. The online classes make it easy to perform coursework whenever it is convenient. Students will benefit from instructors with teaching experience. Students will gain practicum experience and training at area public schools. CVTC's Foundations of Teacher Education program meets Title I requirements and fulfills the requirements of Every Student Succeeds Act (ESSA) for paraprofessionals. CVTC's Foundations of Teacher Education program will provide opportunities to concentrate in Career and Technical Education disciplines leading to Secondary CTE teaching careers.

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): August	EFFECTIVE: August 2018

FOUNDATIONS OF TEACHER EDUCATION

Associate Degree

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
	First Semester			
522-103	EDU: Introduction to Educational Practices	3	3	
522-104	EDU: Technology/Media Resources	3	3	
522-107	EDU: Overview of Special Education	3	3	
801-136	English Composition 1	3	3	
809-198	Introduction to Psychology	3	3	
	Total Hrs./Week and Total Credits		**15 cr.**	
	Second Semester			
522-102	EDU: Techniques for Reading and Language Arts	3	3	
522-106	EDU: Child and Adolescent Development	3	3	
522-111	EDU: Guiding and Managing Behavior	3	3	
522-129	EDU: Practicum 1	9	3	Program student
801-198	Speech	3	3	
	Total Hrs./Week and Total Credits		**15 cr.**	
	Third Semester			
522-101	EDU: Teamwork in School Settings	3	3	
522-120	EDU: Techniques for Science	3	3	
522-122	EDU: Advanced Reading and Language Arts	3	3	522-102
809-122	Intro to American Government	3	3	
	Elective	-	3	
	Total Hrs./Week and Total Credits		**15 cr.**	
	Fourth Semester			
522-124	EDU: Supporting Students with Disabilities	3	3	522-107
522-118	EDU: Techniques for Math	3	3	
522-132	EDU: Positive Classroom Management Techniques	3	3	522-111
522-131	EDU: Practicum 2	9	3	Program student, 522-129
804-189	Introductory Statistics **OR**	3	3	
806-201	Principles of Biology **OR**	6		
804-134	Mathematical Reasoning	4		
	Total Hrs./Week and Total Credits		**15 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 60 **2.0 MINIMUM PROGRAM CUMULATIVE GPA REQUIRED FOR GRADUATION**

If a student does not enroll in any courses at CVTC for two or more consecutive semesters, the student will be required to reapply with Admissions. Students must abide by any changes in admission requirements and degree requirements.

Health Information Management & Technology - 10-530-6

Associate Degree - Two Years

Offered in Eau Claire • August entry date in Eau Claire

Description

If you are interested in the healthcare industry and information technology, the Health Information Management & Technology Program (HIMT) is the right choice. When studying health information, students will acquire a versatile yet focused skill set incorporating electronic health record (EHR) data management, data analytics, information integrity, data quality, workflow re-design and medical coding and billing.

Health information professionals use their knowledge of healthcare, information technology, and data management to form the link between clinicians, administrators, and information technology professionals, all “behind the scenes” of direct patient care.

The HIMT Program's curriculum focuses on:

- Healthcare Compliance: regulatory, medical coding, fraud surveillance, clinical documentation improvement
- Revenue Management: fee and revenue cycle
- Data Use and Analytics: analytics and decision support, statistics, consumer informatics, data quality & integrity
- Information Governance: EHR data management
- Health Information Protection: access, disclosure, archival, & privacy & security

The HIMT program is accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM). Graduates from this program are eligible to take the national certification examination offered by AHIMA to become a Registered Health Information Technician (RHIT). These are credentials required by employers for most positions in this field.

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): August	EFFECTIVE: August 2018

HEALTH INFORMATION MANAGEMENT & TECHNOLOGY

Associate Degree

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
	First Semester			
501-101	Medical Terminology	3	3	
501-130	Healthcare IT	3	2	Program student, Co-requisite: 530-107
530-107	HIMT Fundamentals	4	3	Program student, 501-130 or concurrent
530-182	Human Disease for the Health Professions ***[Online only]***	3	3	501-101 and 806-177 or concurrent
806-177	General Anatomy and Physiology	5	4	High School Chemistry with a "C" or better (or 836-133 or concurrent)
	Total Hrs./Week and Total Credits	**18 hrs.**	**15 cr.**	
	Second Semester			
530-103	Medical Insurance & Billing ***[Online only]***	3	2	
530-184	CPT Coding	4	3	Program student, 501-101, 530-107, 530-182, 806-177
530-197	ICD Diagnosis Coding	4	3	Program student, 501-101, 530-107, 530-182, 806-177
801-136	English Composition 1	3	3	
804-134	Mathematical Reasoning	4	3	
	Total Hrs./Week and Total Credits	**18 hrs.**	**14 cr.**	
	Third Semester (Summer)			
530-178	Healthcare Law & Ethics ***[Online only]***	6	2	Program student, 530-107
530-118	Healthcare Statistics & Data Analytics	6	2	Program student, 530-107, (804-134 or concurrent)
801-196	Oral/Interpersonal Communication	6	3	
	Total Hrs./Week and Total Credits	**18 hrs.**	**7 cr.**	
	Fourth Semester			
530-160	Healthcare Informatics	4	3	Program student, 501-130, 530-107
530-185	Healthcare Reimbursement	3	2	Program student, 530-103, 530-184, 530-197, (530-199 or concurrent)
530-199	ICD Procedure Coding	3	2	Program student, 501-101, 530-107, 530-182, 806-177
530-194	HIM Organizational Resources ***[Online only]***	3	2	Program student, 530-107, 530-118, 530-178
530-124	HIMT Practicum 1 (Clinical)	6	2	Program student, 530-118, 530-178, (530-160, 530-185 or concurrent)
809-172	Intro to Diversity Studies **OR**	3	3	
809-195	Economics			
	Total Hrs./Week and Total Credits	**22 hrs.**	**14 cr.**	
	Fifth Semester			
530-150	Applied HIM Technology	4	2	Program student, 530-118, 530-160
530-161	Health Quality Management ***[Online only]***	4	3	Program student, 530-118
530-195	Applied Coding	3	2	Program student, 530-185
530-126	HIMT Practicum 2 (Clinical)	6	2	Program student, 530-124, 530-194, (530-150, 530-161, 530-195 or concurrent)
809-198	Introduction to Psychology	3	3	
	Total Hrs./Week and Total Credits	**20 hrs.**	**12 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 62 **A GRADE OF "C" OR BETTER IS REQUIRED IN ALL COURSES**

If a student does not enroll in any courses at CVTC for two or more consecutive semesters, the student will be required to reapply with Admissions. Students must abide by any changes in admission requirements and degree requirements.

Program students who interrupt their program for any reason must meet with an academic advisor, apply to the Return list (R list), and will be admitted to core classes on a space available basis.

Human Resources - 10-116-1

Associate Degree - Two Years

Offered in Eau Claire • August or January entry dates in Eau Claire

Description

Most organizations realize that their success depends on recruiting, developing, and retaining their employees, which is why the human resources function plays a critical role in business today. As a result, according to the U.S. Bureau of Labor Statistics, employment of human resource professionals will experience strong employment demand in the coming years.

Our Human Resources Program equips students with the skills necessary to engage and motivate human talent in a diverse and competitive workplace. Human resource professionals lead organizations in meeting safety and legal compliance requirements, coordinating performance and compensation objectives, and recruiting, retaining, and training staff. CVTC's Human Resources Program is your first step toward a rewarding career.

This program includes internship and capstone courses and covers the key functions within human resources. You'll learn to

- Create an organizational workforce plan
- Develop training programs
- Examine organizational total rewards programs
- Incorporate employment law into business practices
- Facilitate effective employee relations
- Model leadership skills to promote effective workplace relationships
- Apply risk and safety programs to protect an organization from potential liability

Graduates pursue careers as human resources generalists, staffing consultants/recruiters, trainers, payroll or benefits administrators, human resource specialists in private industry, non-profit organizations, and government agencies. Consider enrolling in CVTC’s Human Resources Program today!

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): August – Face-to-Face January – Online	EFFECTIVE: August 2018

HUMAN RESOURCES

Associate Degree

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
	First Semester			
116-193	Introduction to Human Resources	3	3	
102-112	Principles of Management	3	3	
102-133	Leadership for Business Excellence	3	3	
104-102	Marketing Principles	3	3	
801-136	English Composition 1	3	3	
	Total Hrs./Week and Total Credits	**15 hrs.**	**15 cr.**	
	Second Semester			
102-116	Strategic Management	3	3	
116-110	Employee Benefits	3	3	116-193
801-198	Speech	3	3	
804-134	Mathematical Reasoning **OR**	4	3	
804-189	Introductory Statistics	3		
809-195	Economics	3	3	
	Total Hrs./Week and Total Credits	**16 hrs.**	**15 cr.**	
	Third Semester			
116-112	Training & Development	3	3	
116-113	Human Resource Law	3	3	116-193
116-114	Recruitment & Selection	3	3	116-193
116-116	Employee Relations	3	3	116-193
116-138	Safety, Security and Risk	3	3	
	Total Hrs./Week and Total Credits	**15 hrs.**	**15 cr.**	
	Fourth Semester			
101-121	Payroll Accounting	3	3	
116-111	Performance Mgmt & Total Rewards	3	3	
116-115	Human Resources Capstone	2	2	116-114, 116-116, (116-110, 116-112, 116-113, 116-128, 116-138 or concurrent)
116-128	Human Resources Internship		1	Program student, 116-114, 116-116, (116-110, 116-112, 116-113, 116-138 or concurrent)
801-196	Oral/Interpersonal Communication	3	3	
809-198	Intro to Psychology	3	3	
	Total Hrs./Week and Total Credits	**14 hrs.**	**15 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 60 **2.0 MINIMUM PROGRAM CUMULATIVE GPA REQUIRED FOR GRADUATION**

If a student does not enroll in any courses at CVTC for two or more consecutive semesters, the student will be required to reapply with Admissions. Students must abide by any changes in admission requirements and degree requirements.

Individualized Technical Studies - 10-825-1

Associate Degree - Two Years

Offered in Eau Claire • June, August or January entry dates in Eau Claire

Description

If you've got a career goal in mind and have not been able to find just the right educational program to help you prepare for it, the Individualized Technical Studies program could be what you're looking for.

This program allows you to combine courses from two or more major areas of study into an Associate of Applied Science Degree that meets your career preparation goals. You begin by completing a program plan outlining your career objectives and the courses you'll need to meet those objectives.

This program is designed to focus on your needs and plans:

- Provides the flexibility to meet your educational needs based on your career goals
- Accepts that your goals cannot be achieved through enrollment in any single instructional program offered at CVTC, and allows you to create your own educational program
- Allows you to pursue the Associate of Applied Science Degree full- or part-time
- Works with employers to provide a flexible program of study to meet the educational needs of their employees

The Individualized Technical Studies program may be just what you need to help take your career to the next level.

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): June, August, January	EFFECTIVE: June 2018

INDIVIDUALIZED TECHNICAL STUDIES

Associate Degree

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
	First Semester			
	Technical Core Courses		9	
	Choose 6 credits from the following:			
801-136	English Composition 1	3	3	
801-196	Oral/Interpersonal Communication	3	3	
801-197	Technical Reporting	3	3	801-136
801-198	Speech	3	3	
	Total Credits		**15 cr.**	
	Second Semester			
	Technical Core Courses		12	
	Choose 3 credits from the following			
809-122	Intro to American Government	3	3	
809-128	Marriage & Family	3	3	
809-166	Intro to Ethics: Theory & Application	3	3	
809-172	Intro to Diversity Studies	3	3	
809-195	Economics	3	3	
809-196	Intro to Sociology	3	3	
	Total Credits		**15 cr.**	
	Third Semester			
	Technical Core Courses		12	
	Choose 3 credits from the following			
809-159	Abnormal Psychology	3	3	
809-188	Developmental Psychology	3	3	
809-198	Intro to Psychology	3	3	
809-199	Psychology of Human Relations	3	3	
	Total Credits		**15 cr.**	
	Fourth Semester			
	Technical Core Courses		12	
	Choose 3 credits from the following			
804-133	Math & Logic	4	3	
804-134	Mathematical Reasoning	4	3	
804-115	College Technical Math 1	5	5	
804-116	College Technical Math 2	4	4	
804-189	Introductory Statistics	3	3	
806-134	General Chemistry	5	4	
	Total Credits		**15 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 60 **2.0 MINIMUM PROGRAM CUMULATIVE GPA REQUIRED FOR GRADUATION**

If a student does not enroll in any courses at CVTC for two or more consecutive semesters, the student will be required to reapply with Admissions. Students must abide by any changes in admission requirements and degree requirements.

Industrial Mechanical Technician - 10-462-1

Associate Degree - Two Years

Offered in Eau Claire • June, August or January entry dates in Eau Claire

Description
If you have an interest in working with technology, enjoy troubleshooting systems, earn an associate degree and take pride in craftsmanship, the Industrial Mechanical program could be a good match for you.

This program will prepare you to install, maintain, operate, diagnose, and repair automated equipment used in manufacturing industries and to maintain facilities/buildings with automated systems that create the products we use every day.

The Industrial Mechanical program provides you with the skills you need in essential career areas:

- Mechanics
- Electrical
- Water Treatment
- Centrifugal pumps
- Building maintenance of heating and cooling systems
- Process control
- Fluid handling systems and piping systems
- Pneumatics
- Troubleshooting
- Welding
- Hydraulics
- Programmable Logic Controllers (PLCs)
- Advanced technologies

As a multi-skilled industrial maintenance technician, you will become proficient in areas that greatly enhance your employment opportunities:

- Laser alignment
- Thermal and vibration analysis
- Mechanical equipment installation, disassembly, and assembly
- Pneumatics and hydraulics
- Conveyance systems
- Machine tool
- Electrical troubleshooting
- Building system maintenance
- Welding
- Preventative maintenance
- Process pumping and piping systems
- Automated machine troubleshooting
- Programmable Logic Controllers (PLCs)

Graduates of the 1 year program simply apply to the program and take only 8 technical credits and 21 general education credits to earn their associate degree. (See program application for details.)

According to the Department of Labor, graduates with broad skills in machine repair and maintenance should have favorable job prospects. Some employers have reported difficulty in recruiting workers with the necessary skills. This could be the career area and educational program you've been searching for!

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): June, August, October, January, and March	EFFECTIVE: June 2018

INDUSTRIAL MECHANICAL TECHNICIAN – DAYTIME

Associate Degree

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
	First Semester			
419-116	Basic Hydraulics	4	2	Program student or instructor approval
419-117	Basic Pneumatics	4	2	Program student or instructor approval
442-120	Related Welding- Industrial Mechanic **OR**	4	2	Program student or instructor approval
106-114	Customer Communication Techniques **AND**	4	1	
106-115	Customer Care Strategies	4	1	
462-111	Mechanical Concepts	4	2	Program student or instructor approval
462-115	Industrial PC Network Concepts	4	2	Program student or instructor approval
462-119	Industrial Mechanical Skills	4	2	Program student or instructor approval
462-130	Manufacturing Prints & Networks	2	1	Program student or instructor approval
625-180	Manufacturing Skills Standards	2	2	
	Total Credits		**15 cr.**	
	Second Semester			
462-118	Industrial Electricity Principles	6	3	Program student or instructor approval
462-120	Centrifugal Pumps & Alignment	6	3	Program student, 462-126 or concurrent, or instructor approval
462-121	IOT Automated Manufacturing	8	4	Program student, 462-118 or concurrent, or instructor approval
462-123	PLC Manufacturing Applications	6	3	Program student, 462-121 or concurrent, or instructor approval
462-126	Mechanical Alignment & Bearings	4	2	Program student, 462-111, 462-119 or concurrent, or instructor approval
	Total Credits		**15 cr.**	
	Third Semester (8 weeks)			
419-102	Hydraulic System Operations	8	2	Program student, 419-116, or instructor approval
419-118	Pneumatic System Operations	8	2	Program student, 419-117, or instructor approval
462-122	Preventative and Periodic Maintenance	4	1	Program student, 462-111, or instructor approval
462-132	Machine Troubleshooting & Repair, Advanced	8	2	Program student, 462-120, (462-123, 419-102, 419-118 or concurrent) or instructor approval
	Total Credits		**7 cr.**	
	Fourth Semester			
462-140	Piping Systems	4	2	Program student, 462-120, or instructor approval
462-150	Building System Maintenance	4	2	Program student, 462-123, or instructor approval
801-136	English Composition 1	3	3	
804-134	Mathematical Reasoning	4	3	
	Total Credits		**10 cr.**	
	Fifth Semester			
462-141	Process Control & Water Treatment Systems	4	2	Program student, 462-120, 462-123, 462-140, or instructor approval
462-151	New Technologies in Industrial Maintenance	4	2	Program student, 462-120, 462-123, 462-150, or instructor approval
801-197	Technical Reporting	3	3	801-136
809-195	Economics	3	3	
809-199	Psychology of Human Relations	3	3	
	Total Credits		**13 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 60 **2.0 MINIMUM PROGRAM CUMULATIVE GPA REQUIRED FOR GRADUATION**

If a student does not enroll in any courses at CVTC for two or more consecutive semesters, the student will be required to reapply with Admissions. Students must abide by any changes in admission requirements and degree requirements.

IT-Network Specialist - 10-150-2

Associate Degree - Two Years

Offered in Eau Claire • August or January entry dates in Eau Claire

Description

If you enjoy problem-solving and working with the latest computer and networking technology, a career in the field of Information Technology is for you. The Information Technology-Network Specialist program prepares you to install, configure, and administer the networking equipment and network services that are common in LAN and WAN environments.

The program provides training on important computer and networking technologies. You'll learn to

- Install and manage network operating systems, including Microsoft Windows, Unix, and Linux
- Install and troubleshoot client and server computer hardware and software
- Install and configure thin clients, virtual PCs, and servers
- Manage various types of directory services
- Implement network and user security
- Monitor network event logs for problem resolution
- Install, configure, and troubleshoot network hardware

The cost of the following professional certification exams is included in the course fees for the corresponding courses:

Professional Certification Exam	Course Number	Course Title
CompTIA A+	150-170	A+ Review
CompTIA Network+	150-181	Advanced NOS 2
CompTIA Security +	150-184	Network Security

Additionally, after completing the appropriate courses, students may qualify to take the following professional certification exams:

- CISA (Certified Information Systems Auditor)
- CWNA (Certified Wireless Network Administrator)
- CCNA (Cisco Certified Network Associate)
- MCTS (Microsoft Certified Technology Specialist)
- CCENT (Cisco Certified Entry Network Technician)

Career opportunities continue to grow dramatically, both within the district and nationally. This could be the training you need for a rewarding career!

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): August, January	EFFECTIVE: August 2018

INFORMATION TECHNOLOGY - NETWORK SPECIALIST

Associate Degree

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
	First Semester			
150-111	IT Software for Networking	3	2	
150-134	Network Infrastructure Concepts	3	2	Program student; Co-requisite: 150-111, 804-133
150-143	Computer Hardware	4	3	
150-150	CCNA 1: Introduction to Networks	4	3	Program student
150-163	Microsoft Client Operating Systems	3	2	
804-133	Math and Logic	4	3	
	Total Hrs./Week and Total Credits	**21 hrs.**	**15 cr.**	
	Second Semester			
150-105	IT Career Preparation	3	2	
150-151	CCNA 2: Routing and Switching Essentials	4	3	150-150
150-165	Microsoft Server 1	3	2	150-150, 150-163
150-176	Linux 1	3	2	
150-183	Wireless Networking	3	2	150-134
801-136	English Composition 1 **OR**	3	3	
801-219	English Composition 1			
	Total Hrs./Week and Total Credits	**19 hrs.**	**14 cr.**	
	Third Semester			
150-110	Help Desk & User Support	2	1	
150-118	Scripting	3	2	
150-153	CCNA 3: Scaling Networks	3	2	150-151
150-166	Microsoft Server 2	3	2	150-165
150-177	Linux 2	3	2	150-176
150-170	IT Service Center **OR**	3	2	150-143
150-182	Network Specialist Internship	8		Program student
801-196	Oral/Interpersonal Communication	3	3	
809-166	Introduction to Ethics: Theory and Application **OR**	3	3	
809-225	Ethics			
	Total Hrs./Week and Total Credits	**23 hrs.**	**17 cr.**	
	Fourth Semester			
150-132	Virtualized Systems	3	2	150-118, 150-166, 150-177
150-154	CCNA 4: Connecting Networks	3	2	150-153
150-155	Network Operations Management	3	2	150-118, 150-166, 150-177
150-184	IT Security Fundamentals	3	2	150-153
150-185	IT Networking Capstone	3	2	150-118, 150-153, 150-166, 150-177
809-196	Introduction to Sociology **OR**	3	3	
809-271	Introductory Sociology			
809-198	Introduction to Psychology **OR**	3	3	
809-251	General Psychology			
	Total Hrs./Week and Total Credits	**21 hrs.**	**16 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 62 **2.0 MINIMUM PROGRAM CUMULATIVE GPA REQUIRED FOR GRADUATION**

A minimum final grade of "C-" is required in all courses.

If a student does not enroll in any courses at CVTC for two or more consecutive semesters, the student will be required to reapply with Admissions. Students must abide by any changes in admission requirements and degree requirements.

IT-Software Developer - 10-152-1

Associate Degree - Two Years

Offered in Eau Claire • August or January entry dates in Eau Claire

Description

If you enjoy working with computers and are interested in the design and development of computer applications, games, and web pages, the Information Technology - Software Developer program could be just what you're looking for. It will benefit those who wish to distinguish themselves across a wide range of technical disciplines within the field of software development.

You'll receive hands-on learning with individual and team projects that will allow you to:

- Explore operating systems and platforms, including UNIX, Windows and Mac OS X
- Design and write computer programs using Java, C++, and Visual Basic .Net
- Analyze business processes and apply solutions with Agile software development and industry-standard reporting tools such as SSRS and Crystal
- Develop dynamic Web applications using state-of-the-art tools: XHTML/CSS, ASP.NET, Java, JSP, JavaScript, XML/AJAX, Flash, and PHP
- Manage data and databases using SQL, MS Access, SQL Server, and MySQL
- Develop valuable workplace skills: time management, collaboration, communication, critical thinking, and environmental awareness

Additionally, after completing the appropriate courses, students may qualify to take the following professional certification exams:

- MCTS (Microsoft Certified Technology Specialist)
- OCPJP (Oracle Certified Professional Java Programmer)
- MTA DB (Microsoft Technology Associate Data Base)
- CIW JavaScript Specialist
- MCSD (Microsoft Certified Software Developer)

Interest in web based applications is at an all-time high, and new computer applications are always in development. The Information Technology - Software Developer program could be what you need to turn your interest in computers into a lifelong career. Graduates of this program also have the opportunity to transfer their credits to selected four-year institutions.

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): August, January	EFFECTIVE: August 2018

INFORMATION TECHNOLOGY – SOFTWARE DEVELOPER

Associate Degree

Course Number	Course Title	Hours/ Week	Credits	Prerequisite(s)/Comments
	First Semester			
152-113	Introduction to Programming ***[1st 8 weeks]***	4	1	
152-106	Computer Concepts ***[1st 8 weeks]***	6	2	Program student
152-107	Web 1 - HTML and CSS ***[1st 8 weeks]***	8	3	Program student
152-101	Programming Fundamentals ***[2nd 8 weeks]***	8	3	Program student, 152-107, 152-113 or concurrent
152-132	Database 1 ***[2nd 8 weeks]***	8	3	Program student
804-133	Math and Logic	4	3	
	Total Hrs./Week and Total Credits	**21 hrs.**	**15 cr.**	
	Second Semester			
152-103	.NET Application Development ***[1st 8 weeks]***	8	3	152-101
152-142	Object Oriented Programming ***[1st 8 weeks]***	8	3	152-101
152-108	Web 2 - JavaScript ***[2nd 8 weeks]***	8	3	152-101, (152-107 or concurrent)
152-114	iOS Development ***[2nd 8 weeks]***	8	3	152-142 or concurrent
152-129	Java Web Programming ***[2nd 8 weeks]***	8	3	152-142 or concurrent
801-196	Oral/Interpersonal Communication	3	3	
	Total Hrs./Week and Total Credits	**23 hrs.**	**18 cr.**	
	Third Semester			
152-136	Database 2 ***[1st 8 weeks]***	8	3	152-132
152-159	Web Multimedia ***[1st 8 weeks]*** **OR**	8	3	152-108
152-161	Game Development 1 ***[1st 8 weeks]***			152-142
152-105	.NET – ASP ***[2nd 8 weeks]*** **OR**	8	3	152-103 or concurrent
152-115	Advanced iOS Develop ***[2nd 8 weeks]***			152-114
801-136	English Composition 1	3	3	
809-199	Psychology of Human Relations	3	3	
	Total Hrs./Week and Total Credits	**18 hrs.**	**15 cr.**	
	Fourth Semester			
152-151	Android Development ***[1st 8 weeks]***	8	3	152-129
152-126	Agile Programming with Design Patterns ***[1st 8 weeks]***	8	3	152-129
152-164	Database-Driven Web Design/Dev ***[2nd 8 weeks]***	8	3	152-108, 152-132
152-182	IT Developer Internship (128 hours) **OR**	-	2	Program student, instructor approval
152-166	IT Developer Capstone ***[2nd 8 weeks]***	6	2	Program student, 152-126 or concurrent
809-196	Introduction to Sociology	3	3	
	Total Hrs./Week and Total Credits	**17-19 hrs.**	**14 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 62 **2.0 MINIMUM PROGRAM CUMULATIVE GPA REQUIRED FOR GRADUATION**

A grade of "C-" or better is required in all courses.

If a student does not enroll in any courses at CVTC for two or more consecutive semesters, the student will be required to reapply with Admissions. Students must abide by any changes in admission requirements and degree requirements.

*Only the first year of the Information Technology-Software Developer program is available at the River Falls Campus. Students will need to attend the second year of the program at the Business Education Center in Eau Claire.

Landscape, Plant & Turf Management - 10-001-1

Associate Degree - Two Years

Offered in Eau Claire • August entry date in Eau Claire

Description

If this is how you would describe yourself, the Landscape, Plant and Turf Management program may be what you need to begin a rewarding career:

- Interested in plants and/or landscaping
- Enjoy working outdoors
- Prefer a hands-on career field
- Have an eye for detail
- Learn quickly

You'll be provided with well-rounded horticultural training, real-life experience, and the business skills necessary for a life-long career owning, managing, or working in a horticulture business in an environmentally sustainable and financially profitable manner. The program provides you with a broad background in landscape and turf management, plant selection, certified pesticide application training, working with diverse populations, and environmentally sustainable management practices.

This is a broad-based program, and you will receive training in all core career components including:

- Landscape Management
- Golf Course and Athletic Field Management
- Greenhouse Operation and Management
- Interior Plantscaping
- Vegetable and Fruit Production

Communities, businesses, golf courses, and institutions such as universities recognize the importance of good landscaping and are expected to continue to provide good employment opportunities for landscape, plant, and turf management specialists. More and more homeowners are contracting with outside firms to maintain their landscaping. Interest in locally-produced foods is growing. All of these trends point to good career opportunities. You have options!

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): August	EFFECTIVE: August 2018

LANDSCAPE, PLANT & TURF MANAGEMENT

Associate Degree

Course Number	Course Title	Credits	Prerequisite(s)/Comments
	First Semester		
001-100	Introduction to Horticulture (T, L)	3	Fall only, Program or pre-program student
001-116	Landscape Plants (L)	2	Fall only, Program or pre-program student
001-120	Horticulture Soils (T, L)	3	Fall only, Program or pre-program student
801-136	English Composition 1 (T)	3	
804-134	Mathematical Reasoning (T, L)	3	
	Total Hrs./Week and Total Credits	**14 cr.**	
	Winter Term		
001-108	Business Apps for the Green Industry (T)	2	Winter only, Program or pre-program student
	Total Hrs./Week and Total Credits	**2 cr.**	
	Second Semester		
001-103	Turf Management and Irrigation (L) ***[14 weeks]***	2	Spring only, Program or pre-program student
001-113	Pesticide and Fertilizer Applications (T, L) ***[14 weeks]***	3	Spring only, Program or pre-program student
001-110	Integrated Plant/Pest Management (T, L) ***[1st 8 weeks]***	2	Spring only, Program or pre-program student
001-125	Horticulture Equipment & Safety (T) ***[2nd 8 weeks]***	2	Spring only, Program or pre-program student
801-196	Oral/Interpersonal Communication (T) ***[1st 8 weeks]***	3	
	Total Hrs./Week and Total Credits	**12 cr.**	
	Summer Term		
001-109	Horticulture Internship (192 hours)	2	Summer only, Program student, 001-100
	Total Hrs./Week and Total Credits	**2 cr.**	
	Fourth Semester		
001-102	Landscape Design and Construction (L)	2	Fall only, Program or pre-program student
001-111	Sustainable Land Use Management (T, L)	3	Fall only, Program or pre-program student
102-112	Principles of Management (T)	3	
806-134	General Chemistry (T, L)	4	
809-198	Introduction to Psychology (T)	3	
	Total Hrs./Week and Total Credits	**15 cr.**	
	Winter Term		
001-114	Entrepreneurship for the Green Industry (T)	2	Program or pre-program student
	Total Hrs./Week and Total Credits	**2 cr.**	
	Fifth Semester		
001-104	Greenhouse Management (T, L) ***[14 weeks]***	3	Spring only, Program or pre-program student
001-115	Vegetable and Fruit Production (T, L) ***[14 weeks]***	3	Spring only, Program or pre-program student
001-112	Interior Plants and Plantscaping (T, L) ***[2nd 8 weeks]***	2	Spring only, Program or pre-program student
802-103	Spanish for the Workplace (T) ***[1st 8 weeks]***	2	
809-195	Economics (T) ***[1st 8 weeks]***	3	
	Total Hrs./Week and Total Credits	**13 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 60 **2.0 MINIMUM PROGRAM CUMULATIVE GPA REQUIRED FOR GRADUATION**

T = Theory/Lecture L = Lab

If a student does not enroll in any courses at CVTC for two or more consecutive semesters, the student will be required to reapply with Admissions. Students must abide by any changes in admission requirements and degree requirements.

Liberal Arts - Associate of Science - 20-800-2

Liberal Arts Transfer - Two Years

Offered in Eau Claire, River Falls and Menomonie • June, August or January entry dates in Eau Claire, River Falls and Menomonie

Description

If you have a wide variety of academic interests or if you are currently uncertain about a specific academic program in which to specialize, the Liberal Arts program may be for you.

Courses in the Liberal Arts program serve two purposes: (1) they may be used toward an associate of science degree in Liberal Arts at CVTC; and (2) they may transfer to a university to be included in a baccalaureate (4-year) degree from that university. CVTC's three principal partners in the Liberal Arts program are the University of Wisconsin-Eau Claire, the University of Wisconsin-River Falls, and the University of Wisconsin-Stout.

For students who have not chosen a major field of post-secondary study, enrolling in the Liberal Arts program will offer a variety of general education courses that may prove helpful in that selection process while, at the same time, fulfilling many requirements of a university baccalaureate program.

Students who have chosen a major field of post-secondary study should contact the university to which they may transfer to verify how each of these general education courses will fit into the chosen program.

CVTC advisors are available to assist in the course selection process to assure that selected courses will meet the minimum credit requirements of each area of the Liberal Arts program while also achieving the degree requirements of a specific university baccalaureate program.

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): June, August, and January	EFFECTIVE: June 2018

LIBERAL ARTS

Associate of Science Degree

A minimum of 60 credits is required to complete Chippewa Valley Technical College's Associate of Science in Liberal Arts with credits in the following areas:

ENGLISH (6 credits minimum)	**Credits**
801-219 English Composition 1	3
801-223 English Composition 2	3

SPEECH (3 credits minimum)	**Credits**
810-201 Fundamentals of Speech	3
810-205 Interpersonal/Small Group Communication	3

HUMANITIES (6 credits minimum)	**Credits**
801-204 Introduction to Literature	3
801-240 Introduction to Creative Writing	3
801-243 American Literature to 1865	3
801-239 American Literature Since 1865	3
802-218 Latin American Studies	3
803-211 U.S. History to 1877	3
803-212 U.S. History 1877-Present	3
803-214 Native American History	3
803-236 The Vietnam Era	3
809-225 Ethics	3
815-201 Art Appreciation	3
890-261 Foundation of Research Methods	4

SOCIAL SCIENCE (6 credits minimum)	**Credits**
809-202 Social Problems	3
809-214 Introduction to Gender Studies	3
809-223 International Relations	3
809-227 American Government	3
809-251 General Psychology	3
809-271 Introductory Sociology	3
809-291 Principles of Microeconomics	3
809-292 Principles of Macroeconomics	3
809-229 Political Theory	3

HEALTH/WELLNESS/PHYSICAL ED (1 credit minimum)	**Credits**
807-266 Wellness Today	2

DIVERSITY/ETHNIC STUDIES (3 credits minimum)	**Credits**
803-214 Native American History	3
809-272 Race & Ethnicity in the U.S.	3

MATH (20 credits minimum Math and Science)*	**Credits**
804-224 College Algebra	4
804-230 Statistics	4
804-228 Plane Trigonometry	3
804-236 Calculus & Analytic Geometry 1	5
804-240 Calculus & Analytic Geometry 2	5
MATH PREPARATION	
804-118 Intermediate Algebra w Apps **	4

SCIENCE (20 credits minimum of Math and Science)*	**Credits**
CHEMISTRY	
806-245 Principles of General Chemistry 1	5
806-249 Principles of General Chemistry 2	5
PHYSICS	
806-220 Conceptual Physics	4
806-225 Intro to Astronomy	3
806-276 Principles of General Physics 1	5
806-280 Principles of General Physics 2	4
LIFE SCIENCE	
806-201 Principles of Biology	4
806-207 Anatomy & Physiology 1	4
806-208 Anatomy & Physiology 2	4
806-232 Human Reproductive Biology	3
806-286 Environmental Science	4

FOREIGN LANGUAGE (4 credits minimum)	**Credits**
802-211 Spanish 1	4
802-212 Spanish 2	4
802-213 Spanish 3	4

ELECTIVES (11 credits minimum; any excess credits from the previous areas will also count toward elective credit)	**Credits**
890-205 Academic Success	1
890-206 Career Success Strategies	1
890-207 Directed Study Service Learning	1
890-298 CPL Success Strategies	1

2.0 MINIMUM PROGRAM CUMULATIVE GPA REQUIRED FOR GRADUATION

Minimum of 20 total credits in Math and Science to include: Math at the level of College Algebra, Statistics, Quantitative Reasoning, or higher and Science to include two lab courses, one from each of 2 different science disciplines.

*****This course may be used for placement into College Algebra – not a transfer credit course.***

If a student does not enroll in any courses at CVTC for two or more consecutive semesters, the student will be required to reapply with Admissions. Students must abide by any changes in admission requirements and degree requirements.

Library & Information Services - 10-557-1

Associate Degree - Two Years

Offered Online • August entry date

Description

The Library & Information Services program prepares students for entering careers in libraries, education, or media professions. Program emphasis is placed on library and education ethics, advocating library services in the community, modeling exceptional customer service, and assessing a wide range of library, media, and educational technologies. The program will also provide continuing education opportunities for current employees and may lead to certification for Wisconsin public library directors. Completion of the Library & Information Services program will culminate in an Associate in Applied Arts degree and may meet some general education and program requirements of the University of Wisconsin. Some graduates will work as paraprofessionals in libraries, schools, and private industry, become library directors in the Wisconsin public library community, or choose to continue their education at various four-year institutions.

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): August	EFFECTIVE: August 2018

LIBRARY AND INFORMATION SERVICES

Associate Degree

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
	First Semester			
557-129	Online Learning & Technologies	1	1	
557-111	Foundations of Library & Information Services	3	3	
557-113	Basic Public Library Administration **OR**	3	3	Fall only
557-115	School Library Principles			Fall only
557-117	Managing & Organizing Collections	3	3	Fall only
103-102	Microsoft Office Suite	2	2	
801-136	English Composition 1	3	3	
	Total Hrs./Week and Total Credits		**15 cr.**	
	Second Semester			
557-121	Fundamentals of Access Services	3	3	Spring only
557-125	Children's Literature & Services **OR**	3	3	Spring only
557-143	Adult Literature & Services			Spring only
557-127	Outreach & Community Services	3	3	Spring only
801-196	Oral/Interpersonal Communication	3	3	
809-172	Intro to Diversity Studies	3	3	
	Total Hrs./Week and Total Credits		**15 cr.**	
	Third Semester			
557-123	Library & Educational Technologies	3	3	Fall only, 103-102, 557-129
557-128	Social Media & Web Technologies	3	3	Fall only, 103-102, 557-129
557-131	Young Adult Literature & Services	3	3	Fall only
557-133	Fundamentals of Reference Services	3	3	Fall only
809-198	Introduction to Psychology	3	3	
	Total Hrs./Week and Total Credits		**15 cr.**	
	Fourth Semester			
557-141	Library Mentorship	9	3	557-111 , 557-117, 557-121, 557-123, 557-133
557-145	Fundamentals of Technical Services	3	3	Spring only
557-147	Advanced Public Library Administration **OR**	3	3	Spring only, 557-113
557-148	Information Literacy			Spring only
557-149	Information Ethics & Legal Issues	3	3	Spring only, 557-111
804-134	Mathematical Reasoning	3	3	
	Total Hrs./Week and Total Credits		**15 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 60 **2.0 MINIMUM PROGRAM CUMULATIVE GPA REQUIRED FOR GRADUATION**

If a student does not enroll in any courses at CVTC for two or more consecutive semesters, the student will be required to reapply with Admissions. Students must abide by any changes in admission requirements and degree requirements.

Manufacturing Engineering Technologist - 10-623-8

Associate Degree - Two Years

Offered in Eau Claire • August entry date in Eau Claire

Description

The Manufacturing Engineering Technologist program prepares graduates to work in the manufacturing sector. They will assist engineering and management in the design and development of new products and in the improvement of production processes.

The program provides instruction for skilled production workers with hands-on training to:

- Apply principles, techniques, procedures, and equipment to the design and production of various goods and services
- Design and produce 2D and 3D components and assemblies
- Apply engineering economics and management principles to support strategic planning, resource allocation, leadership technique, production methods, and coordination of people and resources
- Analyze and troubleshoot manufacturing processes and systems for safety and quality
- Monitor production processes with an emphasis on safety and quality assurance

Coursework includes communication, math, chemistry, physics, and solid modeling design. You will design, analyze and recommend product and process improvements for manufactured industrial and consumer products. You will use measurement instrumentation, explore manufacturing processes, statistics, communication, math, quality assurance, safety, and computer aided design. In addition, the program offers training in leadership, sociology, psychology, and project management to help graduates prepare for their careers in manufacturing engineering technology.

This program is designed for workforce entry as Manufacturing Engineering Technologist and has been aligned with four-year degree pathways to engineering technology and industrial management.

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): August	EFFECTIVE: August 2018

MANUFACTURING ENGINEERING TECHNOLOGIST

Associate Degree

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
	First Semester			
623-101	Engineering Principles	2	1	
623-132	Manufacturing Workplace Safety	2	2	
801-136	English Composition 1	3	3	
804-115	College Technical Math 1	5	5	
806-134	General Chemistry	5	4	
	Total Credits	**17 hrs.**	**15 cr.**	
	Second Semester			
605-116	Engineering Electronics	5	3	
606-161	CAD, Basic	4	3	
801-196	Oral/Interpersonal Communication	3	3	
804-189	Introductory Statistics	3	3	
806-154	General Physics I	5	4	804-115
	Total Hrs./Week and Total Credits	**20 hrs.**	**16 cr.**	
	Third Semester			
606-130	Solid Modeling I	5	3	
623-107	Engineering Materials	4	3	Program student
623-111	Measurement for Engineering	4	2	
623-130	Lean Fundamentals	2	2	
623-154	Engineering Economy	3	3	804-115
809-198	Introduction to Psychology	3	3	
	Total Hrs./Week and Total Credits	**21 hrs.**	**16 cr.**	
	Fourth Semester			
606-102	Principles of Design	3	2	
606-104	Geometric Dimension & Tolerancing	2	1	
606-131	Solid Modeling II	5	3	606-130
625-110	Manufacturing and Quality Assurance	3	3	804-189
809-196	Introduction to Sociology	3	3	
102-112	Principles of Management **OR**	3	3	
102-188	Project Management **OR**			
623-114	Industry Practicum (192 hours)		3	Program student
	Total Hrs./Week and Total Credits	**19 hrs.**	**15 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 62 **2.0 MINIMUM PROGRAM CUMULATIVE GPA REQUIRED FOR GRADUATION**

If a student does not enroll in any courses at CVTC for two or more consecutive semesters, the student will be required to reapply with Admissions. Students must abide by any changes in admission requirements and degree requirements.

Marketing - 10-104-3

Associate Degree - Two Years

Offered in Eau Claire and River Falls • August entry date in Eau Claire, August entry date in River Falls

Description

If you're a "people person" with a flair for business, the Marketing Communications program could be just what you're looking for. This program is a good match for people with an interest in:

- Entrepreneurship/management
- Promotion/advertising
- Business to business sales
- Social media marketing
- Customer relationship management
- Sports, entertainment and event marketing
- Retail management

This program will help you learn how to make strategic marketing decisions regarding product, price, promotion, and distribution to help businesses compete in today's highly competitive marketplace.

You'll receive hands-on learning from class projects, tours, operating your own small business, and completing an internship. Your program will include training in all aspects of marketing.

- Sports and entertainment event marketing
- Promotion/advertising methods and techniques
- Effective sales techniques
- Strategic planning for marketing
- Management skills and abilities
- Marketing research
- Small business management
- Social media marketing

Marketing is the largest occupation in the United States. There are great opportunities in sales, research, promotion/advertising, buying, distribution, and management. A business must successfully meet customer needs and market its products or services. Marketing is more than "selling;" it's a diverse, challenging field offering you many opportunities. This program offers the training and skills that you need for a truly rewarding career!

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): August	EFFECTIVE: August 2018

MARKETING

Associate Degree

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
	First Semester			
102-112	Principles of Management	3	3	
104-102	Marketing Principles	3	3	
104-104	Sales Presentations	3	3	
801-136	English Composition 1	3	3	
809-198	Introduction to Psychology	3	3	
	Total Hrs./Week and Total Credits	**15 hrs.**	**15 cr.**	
	Second Semester			
104-100	Marketing Technologies	3	3	Spring only
104-105	Marketing Research	4	3	104-102
104-111	Consumer Behavior	3	3	Spring only
104-125	Advertising	3	3	104-102
104-191	Service Excellence	3	3	Spring only
	Total Hrs./Week and Total Credits	**16 hrs.**	**15 cr.**	
	Third Semester			
104-109	Social Media Marketing Strategy	3	3	
104-140	Business to Business Selling	3	3	Fall only
104-160	Event Planning & Marketing	3	3	Fall only
801-198	Speech	3	3	
804-134	Mathematical Reasoning **OR**	4	3	
804-189	Introductory Statistics	3		
	Total Hrs./Week and Total Credits	**16 hrs.**	**15 cr.**	
	Fourth Semester			
101-105	Introduction to Accounting **OR**	3	3	
101-111	Accounting 1	5	4	
104-169	Marketing Internship (72 hours)		1	Program Student, 104-160 or concurrent; Co-requisite: 104-182
104-182	Personal Branding	2	2	Program Student, 104-160 or concurrent; Co-requisite: 104-169
104-183	Marketing Strategy	3	3	Spring only, 104-102, 104-105, 104-125 or concurrent
809-172	Intro to Diversity Studies **OR**	3	3	
809-196	Introduction to Sociology			
809-195	Economics	3	3	
	Total Hrs./Week and Total Credits	**14-16 hrs.**	**15-16 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 60-61 **2.0 MINIMUM PROGRAM CUMULATIVE GPA REQUIRED FOR GRADUATION**

If a student does not enroll in any courses at CVTC for two or more consecutive semesters, the student will be required to reapply with Admissions. Students must abide by any changes in admission requirements and degree requirements.

Mechanical Design Technology - 10-606-1

Associate Degree - Two Years

Offered in Eau Claire and River Falls • August or January entry date in Eau Claire, August entry date in River Falls

Description

Any machine - from tractors to aerospace equipment - must be designed before it can be produced. The Mechanical Design program prepares students with skills to design and draw machines using modern engineering practices. Mechanical designers create drawings that give producers a clear picture of the product or component to be produced. The student will construct two-dimensional working drawings and three-dimensional part models on a microcomputer using CAD software. Quality, design, manufacturing, and product reliability are stressed in this program as is creativity, problem-solving ability, and team work.

Students in this program have the opportunity to learn about the newest trends in manufacturing technology through the school's membership in AutoDesk's Alliance for Manufacturing Productivity. The Society of Manufacturing Engineers offers certification at Chippewa Valley Technical College.

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): August, January	CAMPUS: Eau Claire & River Falls	EFFECTIVE: August 2018

MECHANICAL DESIGN TECHNOLOGY

Associate Degree

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
	First Semester			
606-103	Mechanical Design Concepts	4	2	
606-160	Manufacturing Materials and Processes	3	3	Program student
606-130	Solid Modeling 1	5	3	
801-136	English Composition 1	3	3	
804-115	College Technical Math 1	5	5	
	Total Hrs./Week and Total Credits		**16 cr.**	
	Second Semester			
606-104	Geometric Dimension and Tolerancing	2	1	
606-161	Basic CAD	4	3	
606-131	Solid Modeling 2	5	3	606-130
623-111	Measurement for Engineering	4	2	
804-116	College Technical Math 2	4	4	804-115
806-154	General Physics 1	5	4	804-115
	Total Hrs./Week and Total Credits		**17 cr.**	
	Third Semester			
606-118	Mechanisms	5	3	804-116, 806-154
606-132	Statics	2	2	804-115, (806-154 or concurrent)
606-140	Strength of Materials	2	2	606-132 or concurrent
606-112	Tool Design Practices	5	3	606-131, 606-161
801-197	Technical Reporting	3	3	801-136
	Total Hrs./Week and Total Credits		**13 cr.**	
	Fourth Semester			
606-127	Machine Design	6	4	606-140
606-151	Capstone Design Project	4	2	606-118, 606-133, 606-140, (606-127 or concurrent)
606-152	PLC and Fluid Power Application	3	2	Program student
809-195	Economics	3	3	
809-199	Psychology of Human Relations	3	3	
	Total Hrs./Week and Total Credits		**14 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 60 **2.0 MINIMUM PROGRAM CUMULATIVE GPA REQUIRED FOR GRADUATION**

If a student does not enroll in any courses at CVTC for two or more consecutive semesters, the student will be required to reapply with Admissions. Students must abide by any changes in admission requirements and degree requirements.

Medical Laboratory Technician - 10-513-1

Associate Degree - Two Years

Offered in Eau Claire • August entry date in Eau Claire

Description

Scope out your future in the Medical Laboratory Technician program at CVTC. If you find research exciting and like the thought of working in a lab, this is the right choice for you. This program helps you acquire the entry-level knowledge and skills you need to work in a clinical laboratory. Your work as a medical lab technician will help provide basic clues to potential illnesses, making this a rewarding career choice.

In the program you will learn how to:

- Collect and process biologic specimens for analysis
- Perform analytical tests on blood, body fluids, and tissues
- Recognize pre-analytical and analytical variables in laboratory testing
- Monitor quality control
- Perform preventative and corrective maintenance on laboratory instruments
- Maintain professional conduct in communication with patients, health care professionals, and the public

The program includes a clinical experience allowing students to practice the principles and procedures of laboratory medicine in a clinical laboratory setting, including the operation of state-of-the-art instrumentation and the use of laboratory information systems to report.

When you complete the program, you will be awarded an associate of applied science degree as a Medical Laboratory Technician and will be eligible to take the national certification exam offered by the American Society for Clinical Pathology Board of Certification (ASCP-BOC).

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): August	EFFECTIVE: August 2018

MEDICAL LABORATORY TECHNICIAN

Associate Degree

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
	First Semester			
513-110	Basic Lab Skills (L) ***[1st 8 weeks]***	4	1	Program student; Co-requisite: 513-113
513-111	Phlebotomy (T, L)	3	2	
513-113	QA Lab Math (T) ***[2nd 8 weeks]***	2	1	Co-requisite: 513-110
513-115	Basic Immunology Concepts (T, L)	3	2	Program student
801-136	English Composition 1 (T)	3	3	
806-186	Introduction to Biochemistry (T, L)	5	4	
806-177	General Anatomy & Physiology (T, L)	5	4	High School Chemistry with a "C" or better (or 836-133 or concurrent)
	Total Credits		**17 cr.**	
	Second Semester			***Grade of "C" or better for all prerequisites***
513-121	Coagulation (L) ***[weeks 1-6]***	4	1	513-110, 513-111, 513-113, 513-115; Co-requisite: 513-120
513-114	Urinalysis (T, L) ***[weeks 7-16]***	6	2	513-110, 513-113
513-120	Basic Hematology (T, L)	4	3	513-110, 513-111, 513-113, 513-115; Co-requisite: 513-121
513-109	Blood Bank (T, L)	6	4	513-110, 513-113, 513-115
806-197	Microbiology (T, L)	5	4	806-177
809-198	Introduction to Psychology (T)	3	3	
	Total Credits		**17 cr.**	
	Third Semester (Summer)			***Grade of "C" or better for all prerequisites***
801-196	Oral/Interpersonal Communication (T) **OR**	6	3	
801-197	Technical Reporting (T) **OR**			801-136
801-198	Speech (T)			
809-195	Economics (T) **OR**	6	3	
809-172	Introduction to Diversity Studies (T) **OR**			
809-166	Intro to Ethics: Theory and Application (T)			
	Total Credits		**6 cr.**	
	Fourth Semester			***Grade of "C" or better for all prerequisites***
513-116	Clinical Chemistry (T, L)	5	4	513-114, 806-177, 806-186
513-133	Clinical Microbiology (T, L)	6	4	Program student; 806-197; Corequisite: 513-140
513-140	Advanced Microbiology (T, L)	3	2	806-197; Co-requisite: 513-133
513-145	MLT Seminar (T)	2	2	Program student, third semester status, Fall only
513-130	Advanced Hematology (C)	3	2	513-120 and 513-121
	Total Credits		**14 cr.**	
	Winter Term *(Relocation likely)*			
513-151	Clinical Experience 1 (C) ***[192 hours]***		3	Program student; 513-116, 513-130, 513-145; Co-requisites: 513-144, 513-152
	Total Credits		**3 cr.**	
	Fifth Semester *(Relocation likely)*			***Grade of "C" or better for all prerequisites***
513-170	Intro to Molecular Diagnostics (T)	2	2	513-110
513-152	Clinical Experience 2 (C)		4	Program student; 513-116, 513-130, 513-145; Co-requisites: 513-144, 513-151
513-144	Clinical Experience 3 (C)		4	Program student; 513-116, 513-130, 513-145; Co-requisites: 513-151, 513-152
	Total Credits		**10 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 67 **A GRADE OF "C" OR BETTER IS REQUIRED IN ALL COURSES**

C = Clinical L = Lab T = Theory/Lecture

If a student does not enroll in any courses at CVTC for two or more consecutive semesters, the student will be required to reapply with Admissions. Students must abide by any changes in admission requirements and degree requirements.

Program students who interrupt their program for any reason must meet with an academic advisor, apply to the Re-Entry List (R List), and will be admitted to core classes on a space available basis.

Nursing - 10-543-1

Associate Degree - Two Years

Offered in Eau Claire and River Falls • August or January entry dates in Eau Claire and River Falls

Description

Could you be a registered nurse? The profession needs people with highly developed personal strengths:

- Effective communicator
- Able to work in teams
- Critical thinking skills
- Teaching ability
- Desire to help others
- Commitment to health

When you successfully complete the first year of this program you will have met the academic requirements to take the practical nursing (LPN) licensure examination. Upon completion of the second year of the program the student has met the academic requirements to take the NCLEX-RN licensure examination.

Employment of registered nurses is expected to grow much faster than the average for all occupations. The best employment opportunities are for those who are willing to relocate. This is a demanding program, and nursing is a demanding profession. But a career in nursing also offers tremendous rewards - and could be the career you've been searching for.

The program is a member of and accredited by the Accreditation Commission for Education in Nursing (ACEN), 3343 Peachtree Road, NE, Suite 850, Atlanta, GA 30326;

http://www.acenursing.org

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): August, January	EFFECTIVE: August 2018

NURSING

Associate Degree

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
806-177	General Anatomy & Physiology (T, L) *	5	4	High School Chemistry or 836-133 or concurrent with a "C" or better
806-179	Advanced Anatomy & Physiology (T, L) *	5	4	806-177
	Total Credits		**8 cr.**	
	First Semester			
543-101	Nursing Fundamentals (T)	2	2	Program student, 806-177 or concurrent
543-102	Nursing Skills (L)	6	3	Program student, (543-101, 543-103, 806-177 or concurrent)
543-103	Nursing Pharmacology (T)	2	2	Program student, 806-177 or concurrent
543-104	Nsg: Introduction to Clinical Practice (C), ***[8 weeks]***	12	2	Program student, (543-101, 543-102, 543-103, 806-177 or concurrent)
801-136	English Composition 1(T) **OR**	3	3	
801-219	English Composition 1 (T)			
809-188	Developmental Psychology (T)	3	3	
	Total Credits		**15 cr.**	
	Second Semester			
543-105	Nursing Health Alterations (T)	3	3	Program student, 543-101, 543-102, 543-103, 543-104, 806-177, (809-188 or concurrent)
543-106	Nursing Health Promotion (T)	3	3	Program student, 543-101, 543-102, 543-103, 543-104, 806-177, (809-188 or concurrent)
543-107	Nsg: Clinical Care Across the Lifespan (C), ***[8 weeks]***	12	2	Program student, 543-101, 543-102, 543-103, 543-104
543-108	Nsg: Introduction to Clinical Care Management (C), ***[8 weeks]***	12	2	Program student, 543-101, 543-102, 543-103, 543-104, (809-188 or concurrent)
801-196	Oral/Interpersonal Communication (T) **OR**	3	3	
801-198	Speech (T)			
	Total Credits		**13 cr.**	
	Third Semester			
543-109	Nsg: Complex Health Alterations 1 (T)	3	3	Program student, 543-105, 543-106, 543-107, 543-108, 806-179, (806-197 or concurrent)
543-110	Nsg: Mental Health and Community Concepts (T)	2	2	Program student, 543-105, 543-106, 543-107, 543-108, 806-179
543-111	Nsg: Intermediate Clinical Practice (C) ***[8 weeks]***	18	3	Program student, 806-179, (806-197, [809-198 or 809-199] or concurrent)
543-112	Nursing Advanced Skills (L)	2	1	Program student, 543-105, 543-106, 543-107, 543-108, 806-179
806-197	Microbiology (T, L)	5	4	806-177
809-198	Introduction to Psychology (T) **OR**	3	3	
809-199	Psychology of Human Relations (T)			
	Elective		3	
	Total Credits		**19 cr.**	
	Fourth Semester			
543-113	Nsg: Complex Health Alterations 2 (T) ***[12 weeks]***	4	3	543-109, 543-110, 543-111, 543-112, 806-197, (809-198 or 809-199)
543-114	Nsg: Management and Professional Concepts (T) ***[11 weeks]***	3	2	543-109, 543-110, 543-111, 543-112, 806-197, (809-198 or 809-199)
543-115	Nsg: Advanced Clinical Practice (C) ***[1st 8 weeks]***	18	3	543-109, 543-110, 543-111, 543-112, 806-197, (809-198 or 809-199)
543-116	Nursing Clinical Transition (C) ***[2nd 8 weeks]***	12	2	543-109, 543-110, 543-111, 543-112, 806-197, (809-198 or 809-199)
809-196	Introduction to Sociology (T) **OR**	3	3	
809-172	Intro to Diversity Studies (T)			
	Elective		2	
	Total Credits		**15 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 70 **A grade of "C" or better is required in all courses.**

A total of 5 elective credits are required. C = Clinical L = Lab T = Theory/Lecture

If a student does not enroll in any courses at CVTC for two or more consecutive semesters, the student will be required to reapply with Admissions. Students must abide by any changes in admission requirements and degree requirements. Students who interrupt their program for any reason must meet with an academic advisor, apply to the Re-entry List (R List), and will be admitted to core courses on a space available basis. If a student is not successful in 543-102 or 543-104 the student will be required to reapply for program admission.

***806-177 and 806-179 are admission and graduation requirements for the nursing program and they cannot be taken in the same semester. Students may choose to take the university level sequence of 806-207 Anatomy & Physiology 1 and 806-208 Anatomy & Physiology 2.**

Organizational Leadership - 10-196-1

Associate Degree - Two Years

Offered Online • August entry date

Description

This program is designed to meet the increasing demand for trained supervisors/leaders. The program content provides leadership training and education for individuals presently employed in supervisory positions and also those who wish to prepare themselves for such a position. The curriculum focuses on assisting the learner in developing a wide range of leadership skills in areas including human relations, budgeting, decision-making, communications, process improvement, project management, legal issues and managing for quality.

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): August	EFFECTIVE: August 2018

ORGANIZATIONAL LEADERSHIP

Associate Degree

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
	First Semester			
890-115	Online Success Strategies ***[1st 8 weeks]***	2	1	
196-163	Personal Skills for Leaders ***[1st 8 weeks]***	6	3	
801-136	English Composition 1	3	3	
102-133	Leadership for Business Excellence	3	3	
116-193	Introduction to Human Resources	3	3	
809-198	Introduction to Psychology	3	3	
	Total Hrs./Week and Total Credits		**cr. 16**	
	Second Semester			
102-113	Business Ethics	3	3	
801-196	Oral/Interpersonal Communication	3	3	
196-155	Communication in Leadership ***[1st 8 weeks]***	6	3	
196-142	Leading Change ***[2nd 8 weeks]***	6	3	
804-134	Mathematical Reasoning **OR**	4	3	
804-189	Introductory Statistics	3		
	Total Hrs./Week and Total Credits		**cr. 15**	
	Third Semester			
102-188	Project Management	3	3	
196-160	Employee Hiring & Development ***[1st 8 weeks]***	6	3	
809-196	Introduction to Sociology	3	3	
196-168	Organizational Development ***[2nd 8 weeks]***	6	3	
809-172	Introduction to Diversity Studies	3	3	
	Total Hrs./Week and Total Credits		**cr. 15**	
	Fourth Semester			
102-116	Strategic Management	3	3	
196-129	Trends in Leadership ***[1st 8 weeks]***	6	3	
196-180	Process Management ***[2nd 8 weeks]***	6	3	
809-195	Economics	3	3	
196-167	Leadership Capstone ***[2nd 8 weeks]***	4	2	Program student; ***Students registering for this course must have successfully completed all previous courses***
	Total Hrs./Week and Total Credits		**cr. 14**	

MINIMUM PROGRAM CREDITS REQUIRED = 60 **2.0 MINIMUM PROGRAM CUMULATIVE GPA REQUIRED FOR GRADUATION**

If a student does not enroll in any courses at CVTC for two or more consecutive semesters, the student will be required to reapply with Admissions. Students must abide by any changes in admission requirements and degree requirements.

Paralegal - 10-110-1

Associate Degree - Two Years

Offered in Eau Claire • August entry date in Eau Claire

Description

Do you see yourself working in an office with attorneys and investigators, serving clients to help meet their legal needs? Then the paralegal profession could be for you.

Working under the supervision of an attorney, paralegals:

- Investigate facts of a case
- Work with clients
- Use computers to find/organize legal information
- Review contracts, medical records, and court transcripts
- Draft documents and prepare them for filing with a court
- Perform legal research
- Assist with trial preparation and attend court

CVTC's Paralegal program is one of a select group of programs in the United States and the only paralegal program in the Chippewa Valley approved by the American Bar Association. CVTC's Paralegal program has been providing quality paralegal instruction in the Chippewa Valley since 1978. Our faculty, attorneys and paralegals, have practical legal experience to guide you along a path of excellence in the law. The Paralegal program is committed to preparing you for paralegal and legal assistant positions, improving the quality, accessibility, and affordability of legal services. Note that paralegals are not authorized to practice law.

Graduates work in many professional settings, often drawing on a second area of expertise to specialize in one or more areas of paralegal services:

- Hospitals or personal injury, medical malpractice, or elder law firms
- Immigration law, working with people who do not speak English
- Corporate legal departments
- Sports and entertainment agencies or companies
- Patent, copyright, trademark law firms
- Environmental law, working for state/federal government agencies
- Family law legal advocates
- Insurance companies, financial institutions, and real estate firms

If you have graduated with a Bachelor's in Arts or Science, you might consider obtaining a Paralegal diploma, which may be completed in one year.

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): August	EFFECTIVE: August 2018

PARALEGAL

Associate Degree

*Legal Speciality Classes (110) are restricted to the Paralegal Program and Paralegal Post-Baccalaureate Diploma

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
	First Semester			
*110-101	Introduction to Paralegalism and Legal Ethics	3	3	Fall only
*110-102	Civil Litigation I	3	3	Fall only
*110-104	Legal Research	3	3	Fall only
809-122	Introduction to American Government	3	3	
801-136	English Composition 1 **OR**	3	3	
801-219	English Composition 1			
	Total Hrs./Week and Total Credits	**15 hrs.**	**15 cr.**	
	Second Semester			***Grade of "C" or better for all prerequisites***
106-141	Computer Applications-Legal	3	3	
*110-103	Civil Litigation II	3	3	Spring only, 110-102, 110-104 (801-136 or 801-219)
*110-105	Legal Writing	3	3	Spring only, 110-102, 110-104 (801-136 or 801-219)
*110-106	Family Law	3	3	Spring only, 110-102, 110-104 (801-136 or 801-219)
809-195	Economics	3	3	
809-198	Introduction to Psychology	3	3	
	Total Hrs./Week and Total Credits	**18 hrs.**	**18 cr.**	
	Third Semester			***Grade of "C" or better for all prerequisites***
*110-168	Criminal Law-Paralegal	3	3	Fall only, 110-103 or (BA or BS)
*110-114	Administration of Estates	3	3	Fall only, 110-103 or (BA or BS)
*110-160	Employment Law **OR**	3	3	Fall only, 110-102, 110-104 (801-136 or 801-219)
*110-147	Immigration Law **OR**			Spring only, 110-102, 110-104 (801-136 or 801-219)
*110-180	Elder Law			110-102, 110-104 (801-136 or 801-219)
*110-110	Real Estate Law **OR**	3	3	Spring only, 110-102, 110-104 (801-136 or 801-219)
*110-115	Administrative Law			Fall only, 110-102, 110-104 (801-136 or 801-219)
804-189	Introductory Statistics **OR**	3	3	
806-225	Introduction to Astronomy	4		
809-128	Marriage and Family **OR**	3	3	
809-159	Abnormal Psychology			
	Total Hrs./Week and Total Credits	**21 hrs.**	**18 cr.**	
	Fourth Semester			***Grade of "C" or better for all prerequisites***
101-105	Intro to Accounting	3	3	
*110-107	Legal Aspects of Business Organizations	3	3	Spring only, 110-103 or concurrent
*110-122	Debtor and Creditor Relations **OR**	3	3	Spring only, 110-102, 110-104 (801-136 or 801-219)
*110-170	Contract Law			110-102, 110-104 (801-136 or 801-219)
*110-142	Paralegal Internship (144 hrs off campus work exp.) **OR**		3	110-101, (110-114 or 110-168), (110-103, 110-105 or concurrent)
*110-143	Paralegal Field Study, (144 hrs independent study)			110-101, (110-114 or 110-168), (110-103, 110-105 or concurrent)
801-196	Oral/Interpersonal Communication **OR**	3	3	
801-198	Speech			
	Total Hrs./Week and Total Credits	**15 hrs.**	**15 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 66

A MINIMUM FINAL GRADE OF C IN ALL 110 LEGAL SPECIALITY COURSES AND 2.0 MINIMUM CUMULATIVE GPA IS REQUIRED FOR GRADUATION

If a student does not enroll in any courses at CVTC for two or more consecutive semesters, the student will be required to reapply with Admissions. Students must abide by any changes in admission requirements and degree requirements.

Paramedic Technician - 10-531-1

Associate Degree - Two Years

Offered in Eau Claire • January entry date in Eau Claire

Description

If you're calm in emergencies, are interested in a career in the health field, and have a desire to help others, the Paramedic Technician program could be a good match for you.

As a paramedic, you would provide competent care to people by:

- Responding to medical and traumatic emergencies
- Assessing ill and injured people
- Initiating care (within your scope of practice)
- Providing for continuity of care
- Taking care of patients under direct medical control

You will also provide advanced care, including administering medications, interpreting EKGs, performing endotracheal intubation, and using monitors and other advanced procedures.

Emergency services function 24 hours a day, seven days a week, so you will have irregular working hours. You'll need to be emotionally stable, have good dexterity and agility, and be able to lift and carry heavy loads.

Upon graduation from the Paramedic Technician program, you are eligible to apply to write the National Registry of EMT's examination and apply to the Wisconsin Department of Health and Family Services for licensure. Your career could take you to a variety of settings, including ambulance services, fire departments, industrial settings, prisons, jails, and hospital emergency departments. Employment opportunities are expected to be good. This could be the start of a very promising, rewarding career for you!

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): January – Eau Claire	EFFECTIVE: January 2019

PARAMEDIC TECHNICIAN

Associate Degree

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
	First Semester			
806-177	General Anatomy & Physiology (T, L)	5	4	High School Chemistry (or 836-133 or 806-134 with a C or better or concurrent)
801-136	English Composition (T)	3	3	
809-198	Introduction to Psychology (T)	3	3	
	Total Hrs./Week and Total Credits	**16 hrs.**	**10 cr.**	
	Second Semester (Summer)			
806-179	Advanced Anatomy and Physiology (T, L)	5	4	806-177
531-911	EMS Fundamental (T)	2	2	Program student, 806-177 or concurrent
531-912	Paramedic Medical Principles (T)	4	4	Program student; 531-911 or concurrent
	Total Hrs./Week and Total Credits	**11 hrs.**	**10 cr.**	
	Third Semester			
531-913	Advanced Patient Assessment Principles (T, L)	4	3	Program student; 531-912 or concurrent
531-914	Advanced Pre-hospital Pharmacology (T, L)	4	3	Program student; 531-913 or concurrent
531-915	Paramedic Respiratory Management (T, L)	3	2	Program student; 531-914 or concurrent
531-916	Paramedic Cardiology (T, L)	5	4	Program student; 531-915 or concurrent
531-925	Paramedic Clinical/Field 1A (C)	8	2	Program student; 531-916 or concurrent
809-188	Developmental Psychology (T)	3	3	
	Total Hrs./Week and Total Credits	**27 hrs.**	**17 cr.**	
	Winter Term			
531-918	Advanced Emergency Resuscitation (L)	2	1	Program student
		2 hrs.	**1 cr.**	
	Fourth Semester			
531-926	Paramedic Clinical/Field 1B (C)	4	1	Program student; 531-925 or concurrent
531-919	Paramedic Medical Emergencies (T)	4	4	Program student
531-920	Paramedic Trauma (T, L)	4	3	Program student; 531-919 or concurrent
531-921	Special Patient Populations (T, L)	4	3	Program student; 531-920 or concurrent
801-197	Technical Reporting (T)	6	3	801-136
809-172	Intro to Diversity Studies (T)	3	3	
	Total Hrs./Week and Total Credits	**25 hrs.**	**17 cr.**	
	Fifth Semester (Summer)			
531-922	EMS Operations (T)	1	1	Program student; 531-921 or concurrent
531-923	Paramedic Capstone (T, L)	2	1	Program student; 531-922 or concurrent
531-924	Paramedic Clinical/Field 2 (C)	33	4	Program student
	Total Hrs./Week and Total Credits	**36 hrs.**	**6 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 61 **A grade of "C" or better is required in all courses to graduate.**

If a student does not enroll in any courses at CVTC for two or more consecutive semesters, the student will be required to reapply with Admissions. Students must abide by any changes in admission requirements and degree requirements.

Individuals who successfully complete all 531 courses with a minimum grade of "C" may apply for graduation for the Emergency Medical Technician-Paramedic Advanced Technical Diploma (31-531-1).

T = Theory L = Lab

Physical Therapist Assistant - 10-524-1

Associate Degree - Two Years

Offered in Eau Claire • August entry date in Eau Claire

Description

If you are dependable, patient, empathetic, able to do some lifting, have good communication skills, and are interested in a career in the health field, the Physical Therapist Assistant program could be for you.

The program prepares you to become a physical therapist assistant in a hospital, nursing home, rehabilitation center, or other health care facility. You would assist the physical therapist:

- Implement treatment programs
- Teach patients to perform exercises
- Conduct treatments using special equipment

Physical therapist assistants are employed in physical therapy clinics, nursing care facilities, physicians' offices, general medical and surgical hospitals, and other health care settings. They also work for home health organizations and school systems. The need for physical therapist assistants is projected to grow due to the increased need for support personnel in health care and the shortage of physical therapists. This could be the program you're looking for!

The Physical Therapist Assistant program at Chippewa Valley Technical College is accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE), 1111 North Fairfax St., Alexandria, Virginia 22314; Telephone: 703-706-3245; E-mail: accreditation@apta.org; Website: www.capteonline.org).

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): August	EFFECTIVE: August 2018

PHYSICAL THERAPIST ASSISTANT

Associate in Applied Science Degree

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
	First Semester			
524-156	PTA Applied Kinesiology 1 (T, L)	6	4	Program student; 806-177 or concurrent; Co-requisites: 524-139, 524-157
524-139	PTA Patient Interventions (T, L)	6	4	Program student; 806-177 or concurrent; Co-requisites: 524-156, 524-157
524-157	PTA Applied Kinesiology 2 (T, L)	4	3	Program student; 806-177 or concurrent; Co-requisites: 524-156, 524-139
806-177	General Anatomy & Physiology (T, L)	5	4	High School Chemistry with a "C" or better (or 836-133 or concurrent)
	Total Hrs./Week and Total Credits	**21 hrs.**	**15 cr.**	
	Second Semester			
524-142	PTA Therapeutic Exercise (T, L)	5	3	524-139, 524-156, 524-157; Co-requisites: 524-143
524-143	PTA Therapeutic Modalities (T, L)	6	4	524-139, 524-156, 524-157; Co-requisites: 524-142
524-145	PTA Principles of Musculoskeletal Rehabilitation (T, L)	6	4	524-139, 524-156, 524-157; Co-requisites: 524-142, 524-143, 524-147
524-147	PTA Clinical Practice 1 (L, C)	8	2	524-156, 524-139, 524-157; Co-requisites: 524-142, 524-143, 524-145
801-136	English Composition 1 (T)	3	3	
	Total Hrs./Week and Total Credits	**31 hrs.**	**16 cr.**	
	Summer Term			
524-140	PTA Professional Issues 1 (L)	2	2	524-142, 524-143, 524-145, 524-147
809-188	Developmental Psychology (T)	6	3	
	Total Hrs./Week and Total Credits	**10 hrs.**	**5 cr.**	
	Third Semester			
524-144	PTA Principles of Neuromuscular Rehabilitation (T, L)	6	4	524-140; Co-requisites: 524-146, 524-148
524-146	PTA Cardiopulmonary and Integumentary Management (T, L)	4	3	524-140; Co-requisites: 524-144, 524-148
524-148	PTA Clinical Practice 2 (L, C)	16	3	524-140; Co-requisites: 524-144, 524-146
801-196 801-198	Oral/Interpersonal Communication (T) **OR** Speech (T)	3	3	
	Total Hrs./Week and Total Credits	**29 hrs.**	**13 cr.**	
	Fourth Semester			
524-149	PTA Rehabilitation Across the Lifespan (L) ***[Weeks 1-8]***	6	2	524-144, 524-146, 524-148; Co-requisites: 524-150, 524-151
524-150	PTA Professional Issues 2 (L) ***[Weeks 1-8]***	4	2	524-144, 524-146, 524-148; Co-requisites: 524-149, 524-151
524-151	PTA Clinical Practice 3 (L, C) ***[Weeks 9-16]****	40	5	524-144, 524-146, 524-148; Co-requisites: 524-149, 524-150
809-172	Intro to Diversity Studies (T)	3	3	
	Total Hrs./Week and Total Credits	**13-43 hrs.**	**12 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 61 **A GRADE OF "C" OR BETTER IS REQUIRED IN ALL COURSES.**

C = Clinical L = Lab T = Theory/Lecture

Unsuccessful completion of 524-156 or 524-139 will prevent a student from continuing in the program resulting in the need to reapply to the program.

***Students must pass each 524 course, in sequence, within a given semester prior to starting the subsequent course(s).**

****Hours per week will vary throughout the semester.**

If a student does not enroll in any courses at CVTC for two or more consecutive semesters, the student will be required to reapply with Admissions. Students must abide by any changes in admission requirements and degree requirements.

Students who interrupt their program for any reason must meet with an academic advisor, apply to the Return list (R list), and will be admitted to core classes on a space available basis.

Professional Communications - 10-699-1

Associate Degree - Two Years

Offered Online • August entry date

Description

This program focuses on professional, technical, and business writing for a variety of media and industries and prepares individuals for professional careers as technical writers, copy writers, editors, grant writers, and related writing careers in business, government, and non-profit organizations. The program includes instruction in theories of rhetoric, writing, and digital literacy; document design, production, and management; editing and proofreading; visual rhetoric and multimedia composition; documentation development; web writing; and publishing.

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): August	EFFECTIVE: August 2018

PROFESSIONAL COMMUNICATIONS

Associate Degree

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
	First Semester			
890-115	Online Success Strategies ***[1st 8 weeks]***	2	1	
103-102	MS Office Suite ***[1st 8 weeks]***	4	2	
801-136	English Composition 1	3	3	
699-105	Document Design ***[2nd 8 weeks]***	6	3	Fall only, 801-136 or concurrent
699-107	Professional/Technical Writing ***[2nd 8 weeks]***	6	3	Fall only, 801-136 or concurrent
809-198	Introduction to Psychology	3	3	
	Total Hrs./Week and Total Credits		**15 cr.**	
	Second Semester			
699-115	Editing and Proofreading ***[1st 8 weeks]***	6	3	Spring only, 801-136
801-197	Technical Reporting	3	3	801-136
801-196	Oral/Interpersonal Communication	3	3	
699-117	Research Basics ***[2nd 8 weeks]***	6	3	Spring only, 801-136
804-134	Mathematical Reasoning **OR**	4	3	
804-189	Introductory Statistics	3		
	Total Hrs./Week and Total Credits		**15 cr.**	
	Third Semester			
699-125	Proposal/Grant Writing ***[1st 8 weeks]***	6	3	Fall only, 801-136
809-196	Introduction to Sociology	3	3	
699-127	Digital Media Communications ***[2nd 8 weeks]***	6	3	Fall only, 801-136
699-133	Writing Content for the Web ***[2nd 8 weeks]***	6	3	Fall only, 801-136
801-141	Introduction to Mass Communication	3	3	Fall only
	Total Hrs./Week and Total Credits		**15 cr.**	
	Fourth Semester			
699-138	Professional Communications Capstone ***[1st 8 weeks]***	4	2	Spring only, Program student; ****Students registering for the internship course must have completed, or be registered in, all 699 courses.***
699-135	Writing and Publishing ***[1st 8 weeks]***	6	3	Spring only, 801-136
102-188	Project Management	3	3	
699-131	Information Design ***[2nd 8 weeks]***	6	3	Spring only, 801-136
699-137	Technical Documentation ***[2nd 8 weeks]***	6	3	Spring only, 801-136
699-139	Professional Communications Internship (64 hours)	8	1	Spring only, Program student; 699-138 or concurrent
	Total Hrs./Week and Total Credits		**15 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 60 **2.0 MINIMUM PROGRAM CUMULATIVE GPA REQUIRED FOR GRADUATION**

If a student does not enroll in any courses at CVTC for two or more consecutive semesters, the student will be required to reapply with Admissions. Students must abide by any changes in admission requirements and degree requirements.

Radiography - 10-526-1

Associate Degree - Two Years

Offered in Eau Claire • August entry date in Eau Claire

Description

The Radiography program may be a good match for you if you are:

- efficient and accurate with an eye for detail.
- able to follow physicians' orders.
- compassionate.
- seeking a career helping others.
- physically able to meet the demands of the profession.
- good at science and math.

As a radiologic technologist, you will work with patients to produce radiographs that aid in the diagnosis of diseases. You will prepare patients for the exam, position them for the radiograph, and follow all regulations to protect yourself, your patients, and your co-workers from unnecessary exposure. This is a physically demanding career; you're on your feet for long periods and must be able to lift or turn patients and move equipment.

You'll learn through classroom, laboratory, and clinical education experiences. You'll work with patients as part of your training. When you graduate, you are eligible to write the ARRT national registry examination to become an RT(R), Registered Technologist (Radiography). The Radiography program is accredited by the Joint Review Committee on Education in Radiologic Technology, 20N Wacker Drive, Suite 2840, Chicago, IL 60606-2901; phone 312-704-5300; fax 312-704-5304; e-mail mail @jrcert.org; website www.jrcert.org.

Employment prospects are good for registered technologists. Radiologic technologists willing to relocate and who are experienced in more than one diagnostic imaging modality (x-ray, CT, MRI) have the best employment opportunities.

The Radiography Program could be your first step toward a rewarding career!

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): August	EFFECTIVE: August 2018

RADIOGRAPHY

Associate Degree

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
	First Semester			
526-149	Radiographic Procedures 1 (T, L)	7	5	Program student, 806-177 or concurrent
526-158	Introduction to Radiography (T, L)	4	3	Program student
526-159	Radiographic Imaging 1 (T, L)	4	3	Program student
526-168	Radiography Clinical 1 (L) (64 hours)	4	2	Program student, 806-177 or concurrent, Co-requisite: 526-149, 526-158, 526-159
806-177	General Anatomy & Physiology (T, L)	5	4	High School Chemistry with a "C" or better (or 836-133 or concurrent)
	Total Hrs./Week and Total Credits	**24 hrs.**	**17 cr.**	
	Second Semester			
526-170	Radiographic Imaging 2 (T, L)	4	3	Program student, 526-159
526-191	Radiographic Procedures 2 (T, L)	7	5	Program student, 526-149, 806-177
526-192	Radiography Clinical 2 (C) (192 hours)	12	3	Program student, 526-168; Co-requisites: 526-170, 526-191
804-134	Mathematical Reasoning (T) **OR**	4	3	
804-211	Quantitative Reasoning	4	4	
809-195	Economics (T) **OR**	3	3	
809-172	Intro to Diversity Studies (T)			
	Total Hrs./Week and Total Credits	**29 hrs.**	**17 cr.**	
	Third Semester (Summer)			
526-193	Radiography Clinical 3 (C) (128 hours)	16	3	Program student, 526-192, 526-170, 526-191
809-198	Introduction to Psychology (T)	6	3	
	Total Hrs./Week and Total Credits	**22 hrs.**	**6 cr.**	
	Fourth Semester			
526-194	Imaging Equipment Operation (T)	3	3	Program student, 526-158 (526-159 or concurrent)
526-196	Modalities (T)	3	3	Program student, or permission from Program Director
526-199	Radiography Clinical 4 (C) (256 hours)	16	3	526-193
801-136	English Composition 1(T) **OR**	3	3	
801-219	English Composition 1 (T)			
	Total Hrs./Week and Total Credits	**25 hrs.**	**12 cr.**	
	Fifth Semester			
526-189	Radiographic Pathology (T)	1	1	Program student, 526-191
526-190	Radiography Clinical 5 (C) (256 hours)	16	2	Program student, 526-199
526-195	Radiographic Quality Analysis (T, L)	3	2	Program student, 526-170, 526-191; Co-requisite 526-189
526-197	Radiation Protection and Biology (T)	3	3	Program student, 526-158, 526-194 (526-170 or concurrent)
801-196	Oral/Interpersonal Communication (T)	3	3	
809-196	Introduction to Sociology (T)	3	3	
	Total Hrs./Week and Total Credits	**29 hrs.**	**14 cr.**	
	Sixth Semester (Summer)			
526-198	Radiography Clinical 6 (C) (256 hours)	32	2	526-190
526-174	ARRT Certification Seminar (T)	2	2	Program student, or permission from Program Director
	Total Hrs./Week and Total Credits	**34 hrs.**	**4 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 70

A GRADE OF "C" OR BETTER IS REQUIRED IN ALL COURSES.

Students must pass each 526 course in the sequence that they are offered in order to progress in the program. Additionally, each first semester 526 course must be successfully completed or the student will have to reapply to the program.

If a student does not enroll in any courses at CVTC for two or more consecutive semesters, the student will be required to reapply with Admissions. Students must abide by any changes in admission requirements and degree requirements.

T = Theory/Lecture L = Lab C = Clinical

Respiratory Therapy - 10-515-1

Associate Degree - Two Years

Offered in Eau Claire • August entry date in Eau Claire

Description

Respiratory therapists, as members of a team of health care professionals, work to evaluate, treat, and manage patients of all ages with respiratory illnesses and other cardiopulmonary disorders in a wide variety of clinical settings. Respiratory therapists must behave in a manner consistent with the standards and ethics of all health care professionals. In addition to performing respiratory care procedures, respiratory therapists are involved in clinical decision making (such as patient evaluation, treatment selection, and assessment of treatment efficacy) and patient education. The scope of practice for respiratory therapy includes, but is not limited to:

- Assessing the cardiopulmonary status of patients
- Drawing blood samples, performing blood gas analysis, and pulmonary function testing
- Initiating ordered respiratory care, evaluating and monitoring patient responses to such care, modifying the prescribed respiratory therapy and cardiopulmonary procedures and life support endeavors to achieve desired therapeutic objectives
- Providing patient, family, and community education
- Participating in life support activities as required

At graduation, the student is qualified for admission to the entry-level and advanced practitioner examinations to become a registered respiratory therapist. The program is accredited by the Commission on Accreditation of Allied Health Education Programs, on recommendation of the Committee on Accreditation for Respiratory Care (CoARC).

Respiratory Therapy is a full-time program. When a student is admitted as a program student he/she must complete the program as outlined on the program requirement sheet. Fourth and fifth semester clinical sites require weekly travel with overnight stays. Students should be aware that this adds additional expenses to the fourth and fifth semester.

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): August	EFFECTIVE: August 2018

RESPIRATORY THERAPY

Associate Degree

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
	First Semester			
501-101	Medical Terminology (T)	3	3	
515-111	Respiratory Survey (T, L)	4	3	Program student
515-171	Respiratory Therapeutics 1 (T, L)	4	3	Program student, 515-111, 806-177 or concurrent
801-136	English Composition 1 (T) **OR**	3	3	
801-219	English Composition 1 (T)	3	3	
806-177	General Anatomy & Physiology (T, L) **OR**	5	4	High School Chemistry with a "C" or better (or 836-133 or concurrent)
806-207	Anatomy & Physiology 1 (T, L) **AND**	5	4	806-245
806-208	Anatomy & Physiology 2 (T, L)	5	4	806-207
	Total Credits		**16 cr.**	
	Second Semester			
515-172	Respiratory Therapeutics 2 (T, L)	4	3	Program student, 515-171 or concurrent
515-173	Respiratory Pharmacology (T)	3	3	Program student, 515-111, 806-177
515-174	Respiratory/Cardiac Physiology (T)	3	3	Program student, 515-171, 806-177
515-176	Respiratory Disease (T, L)	4	3	Program student, 515-111, 806-177
801-196	Oral/Interpersonal Communication (T)	3	3	
	Total Credits		**15 cr.**	
	Third Semester (Summer)			
515-175	Respiratory Clinical 1 (C)	12	2	Program student, 515-173, 515-176, 515-111, (501-101, 515-171, 515-172, 515-174 or concurrent
806-197	Microbiology	10	4	806-177
	Total Credits		**6 cr.**	
	Fourth Semester			
515-112	Respiratory Airway Management (T, L) ***[1st 8 weeks]***	6	2	Program student, 515-172, 515-174, 515-175, 806-197
515-113	Respiratory Life Support ***[2nd 8 weeks]***	8	3	Program student, 515-172, 515-175, (515-112 or concurrent)
515-178	Respiratory Clinical 2 (C) ***[1st 8 weeks]***	18	3	Program student, 515-175, 806-197
515-179	Respiratory Clinical 3 (C) ***[2nd 8 weeks]***	18	3	Program student, 515-178 or concurrent
809-198	Introduction to Psychology (T) **OR**	3	3	
809-251	General Psychology	3	3	
	Total Credits		**14 cr.**	
	Fifth Semester			
515-180	Respiratory Neo/Peds Care (T, L) ***[1st 8 weeks]***	6	2	Program student, 515-112, 515-113
515-181	Respiratory/Cardio Diagnostics (T, L)	4	3	Program student, 515-113, 515-176
515-182	Respiratory Clinical 4 (C) ***[1st 8 weeks]***	18	3	Program student, 515-112, 515-179
515-183	Respiratory Clinical 5 (C) ***[2nd 8 weeks]***	18	3	Program student, 515-182 or concurrent
809-196	Introduction to Sociology (T) **OR**	3	3	
809-271	Introductory Sociology	3	3	
515-145	Advanced Respiratory Care Topics (T)	2	2	Program student, 515-112, 515-178, 515-179
	Total Credits		**16 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 67 **A grade of "C" or better is required in all courses**

T = Theory/Lecture L = Lab C = Clinical

Students must pass each 515 course, in sequence, within a given semester prior to starting the subsequent course(s). Unsuccessful completion of 515-111 or 515-171 will prevent a student from continuing in the program, resulting in the need to reapply to the program.

If a student does not enroll in any courses at CVTC for two or more consecutive semesters, the student will be required to reapply with Admissions. Students must abide by any changes in admission requirements and degree requirements.

Program students who interrupt their program for any reason must meet with an academic advisor and apply to the Return list (R list), and will be admitted to core courses on a space available basis.

Respiratory Therapy is a full time program. When a student is admitted as a program student they must complete the program courses as outlined on this program requirement sheet.

Technical Studies-Journeyworker - 10-499-5

Associate Degree - Two Years

Offered in Eau Claire • August or January entry dates in Eau Claire

Description

If you've completed an apprenticeship program in Wisconsin, the Technical Studies-Journeyworker program can lead to an associate degree designed around your individual needs.

This program could be a good match for you if you're seeking career advancement in your professional field. You design your own program so you can meet your educational goals. You may be eligible for advanced standing based on training you've already completed.

If you completed your apprenticeship program outside of Wisconsin, you may still be eligible for the Technical Studies-Journeyworker program.

Past graduates have created programs that helped them gain supervisory and management roles in their chosen career area. The Technical Studies-Journeyworker program may be just what you need to help you take your career to the next level.

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): August, January	EFFECTIVE: August 2018

TECHNICAL STUDIES - JOURNEYWORKER

Associate Degree

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
	First Semester			
	Wisconsin Journey Certificate - minimum of 400 hours		39	
	Total Credits		**39 cr.**	
	Second Semester			
	Choose 6 credits from the following:			
801-136	English Composition 1	3	3	
801-196	Oral/Interpersonal Communication	3	3	
801-197	Technical Reporting	3	3	801-136
801-198	Speech	3	3	
	Total Credits		**6 cr.**	
	Third Semester			
	Choose 3 credits from the following:			
804-134	Mathematical Reasoning	4	3	
804-115	College Technical Math 1	5	5	
804-116	College Technical Math 2	4	4	
804-133	Math & Logic	4	3	
804-189	Introductory Statistics	3	3	
806-134	General Chemistry	5	4	
	Total Credits		**3 cr.**	
	Four Semester			
	Choose 3 credits from the following (Social Science):			
809-122	Introduction to American Government	3	3	
809-128	Marriage and Family	3	3	
809-166	Intro to Ethics: Theory & Applications	3	3	
809-172	Introduction to Diversity Studies	3	3	
809-174	Social Problems	3	3	
809-195	Economics	3	3	
809-196	Introduction to Sociology	3	3	
	Choose 3 credits from the following (Behavioral Science):			
809-188	Developmental Psychology	3	3	
809-198	Introduction to Psychology	3	3	
809-199	Psychology of Human Relations	3	3	
Choose any 6 credits from associate degree level courses. Contact your academic advisor for any questions.				
	Total Credits		**6 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 60 **2.0 MINIMUM PROGRAM CUMULATIVE GPA REQUIRED FOR GRADUATION**

If a student does not enroll in any courses at CVTC for two or more consecutive semesters, the student will be required to reapply with Admissions. Students must abide by any changes in admission requirements and degree requirements.

2 YEAR TECHNICAL DIPLOMAS

Automotive Technician - 32-404-2

Technical Diploma - Two Years

Offered in Eau Claire • August entry date in Eau Claire

Description

If you enjoy working on vehicles, the Automotive Technician program could provide the training you're looking for. You'll gain a theoretical understanding of and practice in all aspects of vehicle maintenance and repair. Much of your training will take place in CVTC's automotive lab, where you will learn while working on customers' cars. The lab provides experience that is very similar to what you will encounter every day on the job as a professional automotive technician.

Training will be offered in all eight areas of the Automotive Service Excellence (ASE) certification areas identified as automotive industry standards:

- Engine repair
- Automatic transmission/transaxles
- Manual drive train and axles
- Suspension and steering
- Brakes
- Electrical/electronic systems
- Heating and air conditioning
- Engine performance

Skilled automotive technicians are always in demand. You can gain a competitive edge with training in specialized systems, such as electronics or working with hybrid vehicles. The Automotive Technician program could be the program you've been looking for!

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): August	EFFECTIVE: August 2018

AUTOMOTIVE TECHNICIAN

2-year Technical Diploma

Course Number	Course Title	Credits	Prerequisite(s)/Comments
	First Semester		
404-335	Automotive Fundamentals ***[2 weeks prior to start of semester-32 hrs.]***	1	Fall only; Program student
404-336	Basic Vehicle Maintenance	3	404-335 or concurrent; Co-requisite: 404-337, 404-339, 404-351
404-337	Automotive Electricity 1	2	Program student
404-339	Automotive Brake Systems	4	404-335 or concurrent; Co-requisite: 404-336, 404-337, 404-351
404-351	Automotive Engine Performance 1	3	404-335 or concurrent; Co-requisite: 404-336, 404-337, 404-339
804-360	Math for Technical Trades	2	
	Total Credits	**15 cr.**	
	Winter Term		
404-355	Automotive Computer Systems	2	404-336, 404-337, 404-339, 404-351
		2 cr.	
	Second Semester		
404-350	Automotive Steering & Suspension Systems	4	404-336, 404-337, 404-339, 404-351; Co-requisite: 404-338, 404-352, 404-355
404-338	Automotive Electricity 2	3	404-336, 404-337, 404-339, 404-351; Co-requisite: 404-350, 404-352, 404-355
404-352	Automotive Engine Performance 2	3	404-336, 404-337, 404-339, 404-351; Co-requisite: 404-338, 404-350, 404-355
442-313	Welding - Automotive Technician	1	Program or pre-program student
801-356	Applied Job/Interpersonal Communication	1	
	Total Credits	**12 cr.**	
	Third Semester		****Grade of "C" or better for all prerequisites***
404-356	Automotive HVAC Systems	3	404-336, 404-337, 404-338, 404-339, 404-350, 404-351, 404-352, 404-355, Co-requisite: 404-360, 404-361, 404-362
404-360	Automotive Axles & Drive Trains	2	404-336, 404-337, 404-338, 404-339, 404-350, 404-351, 404-352, 404-355, Co-requisite: 404-356, 404-361, 404-362
404-361	Manual Transmission & Transaxles	3	404-336, 404-337, 404-338, 404-339, 404-350, 404-351, 404-352, 404-355, Co-requisite: 404-356, 404-360, 404-362
404-362	Automatic Transmission & Transaxles	4	404-336, 404-337, 404-338, 404-339, 404-350, 404-351, 404-352, 404-355, Co-requisite: 404-356, 404-360, 404-361
806-342	Science for Technical Trades	2	804-360
	Total Credits	**14 cr.**	
	Fourth Semester		
404-357	Auto Safety & Security Systems	2	404-356, 404-360, 404-361, 404-362, Co-requisite: 404-363, 404-370, 404-371
404-363	Engine Repair	4	404-356, 404-360, 404-361, 404-362, Co-requisite: 404-357, 404-370, 404-371
404-370	Advanced Automotive Chassis Systems	3	404-356, 404-360, 404-361, 404-362, Co-requisite: 404-357, 404-363, 404-371
404-371	Advanced Engine Performance & Alternative Fuels	3	404-356, 404-360, 404-361, 404-362, Co-requisite: 404-357, 404-363, 404-370
809-351	Occupational Relations	2	
	Total Credits	**14 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 57 **2.0 MINIMUM PROGRAM CUMULATIVE GPA REQUIRED FOR GRADUATION**

If a student does not enroll in any courses at CVTC for two or more consecutive semesters, the student will be required to reapply with Admissions. Students must abide by any changes in admission requirements and degree requirements.

**** A grade of "C" or better is required for all prerequisite courses in the third semester.***

Diesel Truck Technician - 32-412-1

Technical Diploma - Two Years

Offered in Eau Claire • August entry date in Eau Claire

Description

If you have a talent for working with mechanical systems and good problem-solving skills, the Diesel Truck Technician program could be a good match for you.

As a graduate, you would inspect, analyze, and repair heavy trucks and equipment. Many employers require NATEF/ASE and Department of Transportation certification. The Diesel Truck Technician program at CVTC helps you meet those requirements, giving you an edge when it comes time to start your career.

Your instructors are ASE Certified Heavy Duty Truck Technicians with many years of trade and teaching experience. Your program will include instruction in several core areas, all required for NATEF/ASE certification:

- Diesel engines
- Suspension and steering
- Brakes
- Electrical/electronic systems
- Preventive maintenance inspection
- Drive train
- HVAC heating, ventilation, and air conditioning systems

All students graduate from the program with DOT certifications as a 396.25 Brake Inspector and 396.19 Vehicle Inspector.

The job outlook is very good for people with strong technical skills who complete formal training in diesel mechanics. This program offers the training you need for a competitive edge toward starting your career!

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): August	EFFECTIVE: August 2018

DIESEL TRUCK TECHNICIAN

2-Year Technical Diploma

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
	First Semester			
412-360	Diesel Fundamentals (L) ***[starts 2 weeks prior to first semester]***	4/8	1	
412-305	Truck Chassis I (T, L) ***[1st 8 weeks]***	20	5	Program student, Co-requisite: 412-306
412-306	Truck Chassis II (T, L) ***[2nd 8 weeks]***	20	5	Co-requisite: 412-305
412-345	Basic DC Electricity (T, L)	4	2	Program student
442-314B	Related Welding for Diesel (L)	4	2	Program student
801-355	Applied Written/Interpersonal Communication (T)	2	1	
	Total Hrs./Week and Total Credits	**30-32 hrs.**	**16 cr.**	
	Second Semester			
412-307	Chassis Electrical (T, L)	10	5	412-306, Co-requisites: 412-308, 412-309
412-308	Mechanical Gear Trains (T, L)	8	4	412-306, Co-requisites: 412-307, 412-309
412-309	Heavy Duty Truck HVAC & Refrigeration (T, L)	6	3	Program student; 412-306; Co-requisites: 412-307, 412-308
804-360	Math for Technical Trades (T)	4	2	
	Total Hrs./Week and Total Credits	**28 hrs.**	**14 cr.**	
	Summer Term			
412-380	Diesel Internship (64 hours)	16	1	Program student
	Total Hrs./Week and Total Credits	**16 hrs.**	**1 cr.**	
	Third Semester			
412-310	Diesel Engine Operation & Tune Up (T, L)	8	4	412-309, Co-requisites: 412-311, 412-312
412-311	Applied Mobile Hydraulics (T, L)	4	2	412-309, Co-requisites: 412-310, 412-312
412-312	Introduction to Electronic Control (T, L)	8	4	412-309, Co-requisites: 412-310, 412-311
412-320	Diesel Equipment Service Management (T)	3	2	
412-350	Mobile Hydraulic Concepts (T) ***[1st 8 weeks]***	4	1	Co-requisite: 412-311
458-307	CDL License Training-Online (L) ***[2nd 8 weeks]***	4	2	
806-342	Science for Technical Trades (T, L)	4	2	804-360
	Total Hrs./Week and Total Credits	**33 hrs.**	**17 cr.**	
	Winter Term			
458-308	CDL License Training – Pre-Trip (T, L)	3	1	458-307, 458-309 or concurrent
	Total Hrs./Week and Total Credits	**hrs.**	**1 cr.**	
	Fourth Semester			
458-309	CDL License Training-Lab (L)	2	1	458-307, 458-308 or concurrent
412-313	Diesel Engine Overhaul (T, L)	10	5	412-312, Co-requisites: 412-314, 412-315, 458-308
412-314	Electronic Diagnostics (T, L)	8	4	412-312, Co-requisites: 412-313, 412-315, 458-308
412-315	Preventive Maintenance (L)	2	1	412-312, Co-requisites: 412-313, 412-314, 458-308
442-320A	Advanced Related Welding for Diesel (L)	4	2	Program student, 442-314B
809-351	Occupational Relations (L)	3	2	
	Total Hrs./Week and Total Credits	**30 hrs.**	**15 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 64 **2.0 MINIMUM PROGRAM CUMULATIVE GPA REQUIRED FOR GRADUATION**

If a student does not enroll in any courses at CVTC for two or more consecutive semesters, the student will be required to reapply with Admissions. Students must abide by any changes in admission requirements and degree requirements.

T = Theory L = Lab

Machine Tooling Technics - 32-420-5

Technical Diploma - Two Years

Offered in Eau Claire four days/week (Monday-Thursday) a.m. or p.m. (a.m. schedule 7 a.m. - 3 p.m., p.m. schedule 11 a.m. - 7 p.m.) • August, October, January, March, or June entry dates in Eau Claire four days/week (Monday-Thursday) a.m. or p.m. (a.m. schedule 7 a.m. - 3 p.m., p.m. schedule 11 a.m. - 7 p.m.)

Description

The Machine Tooling Technics Program (2 year) provides training for advanced level employment as a Computer Numerical Control (CNC) set-up machinist and/or CNC Programmer.

Students will expand on prior training or work experience to be able to set-up and program Computer Numerical Control (CNC) machines. Other technologies expanded upon include Computer Aided Design/Computer Aided Manufacturing (CAD/CAM), Coordinate Measuring Machines (CMM), Electrical Discharge Machining (EDM), and Swiss Screw Machining. Students will develop a higher level understanding of the fundamental machining processes as they incorporate advanced technologies necessary to increase productivity and efficiencies in today's state-of-the art manufacturing facilities.

The program is a face-to-face, lab-based program with online computer-based learning. The student will have the option to obtain additional credentials recognized nationally.

You will learn

- how to apply basic safety practices in the machine shop.
- to develop & interpret industrial/engineer drawings.
- to apply precision measuring methods to part inspection.
- to perform advanced set-up, programming, and operation of CNC machine tools.
- CAD/CAM technology in the creation of print geometry & part coordinates.
- how to apply advanced material removal principles to create part geometry.
- fundamental knowledge to develop philosophies to increase profit margins and efficiencies utilizing advanced technologies necessary in today's manufacturing environment.

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): June, August, October, January, March	EFFECTIVE: June 2018

MACHINE TOOLING TECHNICS

Technical Diploma

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
	First Semester			
420-300	Machine Shop Theory	2	1	Program student; Co-requisite 420-321, 420-373
420-321	Manual Turning Processes	10	5	Program student; Co-requisite 420-300, 420-373
420-322	Manual Milling Processes	10	5	Program student; Co-requisite 420-300, 420-321, 420-373
804-360	Math for Technical Trades	8	2	
421-385	MT Blueprint Reading and GD&T	8	2	Program student
420-373	Precision Measurement	2	1	Program student; Co-requisite 420-300, 420-321
	Total Hrs./Week and Total Credits	**32**	**16 cr.**	
	Second Semester			
420-310	CNC Programming Theory	2	1	420-321, 420-322; 804-360 or concurrent; Co-requisite 420-325, 420-330
420-330	Basic CNC Lathe Programming	10	5	420-321; Co-requisite 420-325
420-341	Materials for Machinists	4	2	420-321, 420-322
420-325	Basic CNC Mill Programming	10	5	420-322; Co-requisite 420-330
420-380	2-D CAM	4	2	420-325 or concurrent
804-362	Math 20	4	2	804-360
	Total Hrs./Week and Total Credits	**34**	**17 cr.**	
	Third Semester			
420-326	Advanced CNC Mill & Grinding Processes	10	5	420-325; Co-requisite 420-331
420-331	Advanced CNC Turning Processes	10	5	420-330; Co-requisite 420-326
420-367	MasterCam Advanced	4	2	420-380
420-353	CAM for CNC Lathe	4	2	420-330, 420-380; Co-requisite 420-331
420-379	Job Skills for Manufacturing **OR**	3	1	Program student
801-356	Applied Job/Interpersonal Communication	2		
	Total Hrs./Week and Total Credits	**30-31**	**15 cr.**	
	Fourth Semester			
420-351	CAM for Multi-Axis Machining	4	2	420-353, 420-367
420-352	Advanced Technologies in Manufacturing	10	5	420-326, 420-331, 420-353, 420-367; Co-requisite 420-355
420-355	Competitive Machining Techniques	10	5	420-326, 420-331; Co-requisite 420-352
420-385	Advanced Machine Concepts **OR**	6	3	Program student; 420-326, 420-331, 420-367
420-315	Machine Tool Internship (192 hours)	12		420-326, 420-331
	Total Hrs./Week and Total Credits	**30**	**15 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 63 **2.0 MINIMUM PROGRAM CUMULATIVE GPA REQUIRED FOR GRADUATION**

If a student does not enroll in any courses at CVTC for two or more consecutive semesters, the student will be required to reapply with Admissions. Students must abide by any changes in admission requirements and degree requirements.

Mission of the Machine Department

The mission of the machine tool department is to offer a success-oriented curriculum to individuals dedicated to the highest personal potential growth both, professionally and technically, to meet the industrial needs of the regional employers. Emphasis will be given to teaching the core machining processes of milling, drilling, turning, grinding, and an introduction to EDM, to a level that will meet the skills required of the machine trades. The department will offer training and retraining on advanced machining concepts.

Vision of the Machine Department

The Chippewa Valley Technical College Machine Tool Department will strive to be the best programs in the nation. It will consist of an outstanding facility, professional and knowledgeable staff, support staff, support services which enhances learning, and a curriculum which serves the current and future needs of the machining industry. The programs will operate as a stable process of education to continuously provide students with sound operational mastery of skills and knowledge for the machine tool trades.

Welding Fabrication - 32-457-1

Technical Diploma - Two Years

Offered in Eau Claire • August entry date in Eau Claire

Description

This two-year technical diploma in Welding Fabrication will prepare individuals to enter the fields of welding, metal fabrication, production manufacturing, construction, maintenance welding, plus many other opportunities in the career of working with metals.

Students will gain skills and knowledge in advanced welding processes, along with the traditional processes of SMAW, GMAW, FCAW, GTAW, and Oxy-Fuel welding and cutting.

Students will learn to operate/program manual and CNC cutting and forming equipment. Additional areas of study include blueprint reading, computer drafting software, and fabrication techniques. Students will operate and perform advanced manufacturing processes and equipment such as welding robotics and more. Students will also gain knowledge of welding codes, inspection techniques, and the certification process in the welding/fabrication field.

This program will prepare the student for the demands of the ever-advancing skill sets needed in the manufacturing and construction industries of today.

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): August	EFFECTIVE: August 2018

WELDING FABRICATION

Two Year Technical Diploma

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
	First Semester			
442-310	Welding Safety and Orientation		1	Program student
	[2 weeks prior to start of semester-32 hrs.]			
442-307	Welding Print Reading	4	2	Program student
442-303	Metals Technology 1	2	1	Program student, 442-310 or concurrent
442-361	Basic Arc Welding	8	4	Program student, 442-303, 442-307, 442-310 or concurrent
442-362	Basic Wire-Feed Welding	8	4	Program student, 442-303, 442-307, 442-310 or concurrent
457-380	Layout and Fabrication 1/CNC	6	3	Program student, 442-307, 442-310, 442-380 or concurrent
442-380	Industrial Skills – Welders	4	2	Program or pre-program student
	Total Hrs./Week and Total Credits	**32 hrs.**	**17 cr.**	
	Second Semester			
442-301	Welding Metallurgy	4	2	Program student, 442-303, 442-361, 442-362 or concurrent
442-304	Metals Technology 2	2	1	Program student, 442-303 or concurrent
442-360	Robotic Welding	4	2	Program student, 442-361, 442-363 or concurrent
442-363	Advanced Wire-Feed Welding	8	4	Program student, 442-310, 442-362
442-366	Advanced Arc Welding	8	4	Program student, 442-310, 442-361 or concurrent
457-381	Layout and Fabrication 2	4	2	Program student, 442-310, 457-380, 442-363, 442-366 or concurrent
	Total Hrs./Week and Total Credits	**30 hrs.**	**15 cr.**	
	Third Semester (Summer)			
442-364	Gas Tungsten Arc Welding	16	4	Program student, 442-310 or concurrent
442-365	Welding Rigging/Forklift Training	8	2	Program student, or instructor approval
	Total Hrs./Week and Total Credits	**24 hrs.**	**6 cr.**	
	Fourth Semester			
442-350	Pipe Welding	8	4	Program student, 442-310, 442-364, 442-366, 442-373 or concurrent
442-373	Welding Applications	8	4	Program student, 442-310, 442-350, 457-372 or concurrent
457-372	Non-Destructive Testing (NDT) & Welding Codes	4	2	Program student, 442-373 or concurrent
801-196	Oral/Interpersonal Communication	3	3	
	Total Hrs./Week and Total Credits	**23 hrs.**	**13 cr.**	
	Fifth Semester			
442-372	Welding Sense & Skills	4	2	Program student
457-360	Advanced Processes	4	2	Program student, 442-310; Co-requisite: 457-361, 606-135
457-361	Advanced Fabrication 1	6	3	Program student, 442-310, 442-365; Co-requisite: 457-360, 606-135
606-135	SolidWorks for Welders	5	3	Program student, or instructor approval
804-360	Math for Technical Trades	4	2	
	Total Hrs./Week and Total Credits	**23 hrs.**	**12 cr.**	
	Sixth Semester (Summer)			
457-370	Advanced Fabrication 2	6	3	Program student, 457-361, 606-135
442-371	Advanced Robotic Welding	6	3	Program student, 457-360
	Total Hrs./Week and Total Credits	**12 hrs.**	**6 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 69 **2.0 MINIMUM PROGRAM CUMULATIVE GPA REQUIRED FOR GRADUATION**

If a student does not enroll in any courses at CVTC for two or more consecutive semesters, the student will be required to reapply with Admissions. Students must abide by any changes in admission requirements and degree requirements.

1 YEAR TECHNICAL DIPLOMAS

Accounting Assistant - 31-101-1

Technical Diploma - One Year

Offered in Eau Claire • August or January entry dates in Eau Claire

Description

Do you enjoy working with numbers and supporting a team? As an accounting assistant, you will maintain timely and accurate records of daily business transactions. Examples include: accounts receivable, accounts payable, payroll, inventory management, and other business records. Learn to assist an accountant in preparing important financial statements. You will learn how to compile and report financial data. Students will gain experience with QuickBooks and spreadsheet applications related to business. You'll also learn and practice written, oral, and interpersonal communication skills.

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): August, January	EFFECTIVE: August 2018

ACCOUNTING ASSISTANT

Embedded Technical Diploma

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
	First Term			***Grade of "C" or better for all prerequisites***
101-100	Orientation to Accounting	2	1	
101-111	Accounting 1	5	4	
101-121	Payroll Accounting	3	3	
101-149	Intro to QuickBooks	4	2	
801-136	English Composition 1 **OR**	3	3	
801-219	English Composition 1			
809-198	Introduction to Psychology	3	3	
	Total Hrs./Week and Total Credits	**20 hrs.**	**16 cr.**	
	Second Term			***Grade of "C" or better for all prerequisites***
101-106	Accounting Spreadsheets	4	2	101-111 or concurrent
101-113	Accounting II	5	4	101-111
102-160	Business Law	3	3	
801-196	Oral/Interpersonal Communication	3	3	
804-134	Mathematical Reasoning **OR**	4	3	
804-189	Introductory Statistics	3		
	Total Hrs./Week and Total Credits	**18-19 hrs.**	**15 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 31 **2.0 MINIMUM PROGRAM CUMULATIVE GPA REQUIRED FOR GRADUATION**

A grade of "C" or better is required in all program (101) courses.

If a student does not enroll in any courses at CVTC for two or more consecutive semesters, the student will be required to reapply with Admissions. Students must abide by any changes in admission requirements and degree requirements.

Agronomy Technician - 31-093-3

Technical Diploma - One Year

Offered in Eau Claire • August entry date in Eau Claire

Description

The Agronomy Technical Diploma is a one-year degree designed to get you in and out of school to put you on the job with the necessary skills, quicker! In the Agronomy Technician Program, you will learn about: soil health, plant science, row crop management, agriculture equipment, agriculture technologies, and nutrient management planning. While in the program, you will walk away with the following certificates: Wisconsin Commercial Pesticide Applicator License, Wisconsin Seed Treatment Certification, and Commercial Driver's License.

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): August	EFFECTIVE: Fall 2018

AGRONOMY TECHNICIAN

Embedded Technical Diploma

Course Number	Course Title	Credits	Prerequisite(s)/Comments
	First Semester		
093-116	Introductory Soils	3	
093-110	Introduction to Agronomy	2	
093-112	Precision Farming	2	
093-114	Plant Protection Products	2	
093-118	Agriculture Equipment	2	
804-134	Mathematical Reasoning	3	
801-136	English Composition 1	3	
	Total Credits	**17 cr.**	
	Winter Term		
093-122	Nutrient Management	2	
458-308	CDL License Training – Pre-Trip	1	458-307, 458-309 or concurrent
	Total Credits	**3 cr.**	
	Second Semester		
093-120	Plant Science ***[1st 8 weeks]***	3	
093-124	Pest Management ***[1st 8 weeks]***	1	
091-188	Feed Analysis ***[1st 8 weeks]***	2	
458-307	CDL License Training – Online ***[1st 8 weeks]***	2	
801-196	Oral/Interpersonal Communication ***[1st 8 weeks]***	3	
093-126	Precision Field Applications 1 ***[2nd 8 weeks]***	1	Co-requisite: 458-308
458-309	CDL License Training – Lab ***[2nd 8 weeks]***	1	458-307, 458-308 or concurrent
	Total Credits	**14 cr.**	
	Summer Term		
093-132	Crop Scouting	2	
	Total Credits	**2 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 35 **2.0 MINIMUM PROGRAM CUMULATIVE GPA REQUIRED FOR GRADUATION**

Air Conditioning, Heating & Refrigeration Technician - 31-401-1

Technical Diploma - One Year

Offered in Eau Claire • August or January entry dates in Eau Claire

Description

If this is how you would describe yourself, you could be a good candidate for the Air Conditioning, Heating & Refrigeration Technician program:

- Enjoy solving problems
- Good mechanical aptitude
- Can work independently and as a member of a team
- Like working with tools
- Interested in latest energy-saving technologies
- Detail-oriented
- Physically fit

As a graduate of this program, you will be responsible for installation, service and maintenance of refrigeration, air conditioning, and heating equipment as well as geothermal, solar, and other renewable energy equipment.

The program prepares you to take the Environmental Protection Agency (EPA) Certification Exam for safe handling of refrigerants. The Industry Competency Exam (ICE) sponsored by the Air Conditioning and Refrigeration Institute for HVAC/R technicians is a requirement for all students.

Your coursework the first semester covers the fundamentals:

- Gas, oil, and electric furnaces
- Basic refrigeration and air conditioning systems
- HVACR technical problem solving
- Related electricity

Your second semester coursework will build on what you've learned, with emphasis on geothermal and solar systems, and HVAC/R maintenance, service, and installation. As part of your program, you'll be provided with hands-on technical installation and service situations to complete.

Nationally there is a shortage of HVAC/R installation, service, and maintenance technicians. This is a career area full of opportunity!

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): August, January	EFFECTIVE: August 2018

AIR CONDITIONING, HEATING AND REFRIGERATION TECHNICIAN

Technical Diploma

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
	First Semester			
601-125	Safety – HVAC	2	1	Program student
601-105	Refrigeration Principles	4	2	601-106, 601-140, 601-148 or concurrent
601-106	Refrigeration Theory	2	1	
601-107	Heating Theory	2	1	
601-108	Principles of Gas Heat and Airflow	4	2	601-107, 601-140, 601-148 or concurrent
601-109	Principles of Oil, Electricity & Hydronic Heating	2	1	601-107, 601-140, 601-148 or concurrent
601-116	Principles of Air Conditioning	4	2	601-106, 601-140, 601-148 or concurrent
601-118	Sustainability for HVAC	2	1	
601-140	Electricity Theory	2	1	
601-148	Electricity Principles	4	2	601-140 or concurrent
801-196	Oral/Interpersonal Communication	3	3	
	Total Hrs./Week and Total Credits	**31 hrs.**	**17 cr.**	
	Second Semester			
601-121	HVAC/R Service & Applications	6	3	Program student, 601-105, 601-106, 601-116
601-122	HVACR Industry Skills	2	1	Program student
601-130	Sheet Metal Layout	2	1	
601-144	Solar/Wind Applications	4	2	
601-145	Geothermal Applications	2	1	
601-146	Schematic Wiring-HVACR	2	1	601-140, 601-148
601-147	Schematic Wiring-Troubleshooting	2	1	601-140, 601-146, 601-148 or concurrent
601-151	Technical Problems-HVAC	4	2	Program student, 601-107, 601-108, 601-109
601-161	HVAC Load Calculations & Psychrometrics	6	3	Program student
804-134	Mathematical Reasoning	4	3	
	Total Hrs./Week and Total Credits	**34 hrs.**	**18 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 35 **2.0 MINIMUM PROGRAM CUMULATIVE GPA REQUIRED FOR GRADUATION**

If a student does not enroll in any courses at CVTC for two or more consecutive semester, the student will be required to reapply with Admissions. Students must abide by any changes in admission requirements and degree requirements.

Auto Collision Repair & Refinish Technician - 31-405-1

Technical Diploma - One Year

Offered in Eau Claire • August entry date in Eau Claire

Description

If you've ever wanted to know how to turn a damaged vehicle into something that looks like new, this could be the program you're looking for. Through classroom instruction and work on customers' vehicles, you'll learn the skills you'll need for this career area:

- Estimating
- Non-structural repair
- Plastic repair
- Weld-on panel replacements
- Vehicle refinishing
- Frame and structural repair
- Paint technology
- Mechanical systems repair

In all course activities, you'll find an emphasis on safety. The latest, most advanced equipment and repair techniques are used. Your classes will incorporate I-CAR curriculum, and you may be I-CAR certified when you successfully complete the program.

Employment opportunities are best for people with formal training in automotive body repair and refinishing. The number of vehicles on the road is increasing, leading to a need for people to repair damaged vehicles. This program could be the training you need to prepare for a rewarding career!

This program is certified by the National Institute for Automotive Services Excellence in the areas of painting and refinishing, nonstructural analysis and damage repair, structural analysis and damage repair, and mechanical and electrical components.

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): August	EFFECTIVE: August 2018

AUTO COLLISION REPAIR AND REFINISH TECHNICIAN

Technical Diploma

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
	First Semester			
405-301	Introduction to Auto Collision ***[within two weeks prior to first semester]***		1	Program student
405-355	Auto Body Basics ***[1st 8 weeks]***	20	5	Program student, 405-301, 405-382, 442-315A or concurrent
405-356	Nonstructural Repair ***[2nd 8 weeks]***	20	5	Program student, 405-355 or concurrent
405-382	Paint Technology	4	2	Program student
404-337	Automotive Electricity 1	4	2	Program student
442-315A	Welding for Auto Collision	4	2	Program or pre-program student
	Total Credits		**17 cr.**	
	Winter Term			
405-370	Auto Collision Internship	24	1	Program student
	Total Credits		**1 cr.**	
	Second Semester			
405-357	Refinishing ***[1st 8 weeks]***	20	5	405-356
405-358	Structural Repair ***[2nd 8 weeks]***	20	5	405-357 or concurrent
405-375	Estimating and Structural Repair	4	2	Program student, 405-356, 405-382 or instructor approval
801-356	Applied Job/Interpersonal Communication	2	1	
804-360	Math for Technical Trades	4	2	
	Total Credits		**15 cr.**	
	Third Semester (Summer)			
405-352	Advanced Collision Repair	20	5	Program student, 405-358 or concurrent
405-381	Auto Collision Mechanical	8	2	**Offered summer only**, Program student
	Total Credits		**7 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 40 **2.0 MINIMUM PROGRAM CUMULATIVE GPA REQUIRED FOR GRADUATION**

If a student does not enroll in any courses at CVTC for two or more consecutive semesters, the student will be required to reapply with Admissions. Students must abide by any changes in admission requirements and degree requirements.

Automotive Maintenance Technician - 31-404-3

Technical Diploma - One Year

Offered in Eau Claire • August entry date in Eau Claire

Description

If you enjoy working on vehicles and want an educational program you can complete in just one year, consider the Automotive Maintenance Technician program.

This program can help you gain the entry-level skills you need for a career servicing and repairing vehicles. You'll receive training in the Automotive Service Excellence (ASE) areas identified as automotive industry standards:

- Brakes
- Suspension and steering
- Engine performance
- Electrical/electronic systems

If you complete this program and decide you would like more training, you could apply what you've learned and enter CVTC's two-year Automotive Technician program.

This is a time of change and challenge in the automotive industry, with demand for vehicles that deliver better mileage, higher safety ratings, and increased performance and style. The industry needs trained technicians. Most employers consider completing a vocational training program as the best preparation for entry-level jobs. CVTC's program is a combination of classroom instruction and hands-on practice to give you the background you need to succeed.

Chippewa Valley Technical College

PROGRAM REQUIREMENTS
www.cvtc.edu - 1-800-547-2882

START DATE(S): August	EFFECTIVE: August 2018

AUTOMOTIVE MAINTENANCE TECHNICIAN

Technical Diploma

Course Number	Course Title	Credits	Prerequisite(s)/Comments
	First Semester		
404-335	Automotive Fundamentals ***[2 weeks prior to start of semester-32 hrs.]***	1	Fall only; Program student
404-336	Basic Vehicle Maintenance	3	404-335 or concurrent; Co-requisite: 404-337, 404-339, 404-351
404-337	Automotive Electricity 1	2	Program student
404-339	Automotive Brake Systems	4	404-335 or concurrent; Co-requisite: 404-336, 404-337, 404-351
404-351	Automotive Engine Performance 1	3	404-335 or concurrent; Co-requisite: 404-336, 404-337, 404-339
804-360	Math for Technical Trades	2	
	Total Credits	**15 cr.**	
	Winter Term		
404-355	Automotive Computer Systems	2	404-336, 404-337, 404-339, 404-351
		2 cr.	
	Second Semester		
404-350	Automotive Steering & Suspension Systems	4	404-336, 404-337, 404-339, 404-351; Co-requisite: 404-338, 404-352, 404-355
404-338	Automotive Electricity 2	3	404-336, 404-337, 404-339, 404-351; Co-requisite: 404-350, 404-352, 404-355
404-352	Automotive Engine Performance 2	3	404-336, 404-337, 404-339, 404-351; Co-requisite: 404-338, 404-350, 404-355
442-313	Welding - Automotive Technician	1	Program or pre-program student
801-356	Applied Job/Interpersonal Communication	1	
	Total Credits	**12 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 29 **2.0 MINIMUM PROGRAM CUMULATIVE GPA REQUIRED FOR GRADUATION**

If a student does not enroll in any courses at CVTC for two or more consecutive semesters, the student will be required to reapply with Admissions. Students must abide by any changes in admission requirements and degree requirements.

Child Care Services - 31-307-1

Technical Diploma - One Year

Offered in Eau Claire • August entry date in Eau Claire

Description

Do you want to make a difference in the lives of children? If that's your goal, the Child Care Services program may be a good match for you.

As a graduate of this program, you'll care for children while their parents are at work or unavailable for other reasons. You'll attend to the children's health, safety, and nutrition, and have a role in their physical, emotional, intellectual, and social growth.

The Child Care Services Program offers a strong framework of child development, nutrition, creative activities, and practical experience with young children in area child care facilities. As a final project, you'll help produce a puppet show enjoyed by hundreds of children.

You may enroll in this program full- or part-time. If you have related work experience, you could qualify for credit for prior learning. If you decide to continue your education, the credits you earn in this program apply toward the two-year Early Childhood Education associate degree program, and selected credits transfer to some universities.

The ever-expanding field of child care demands higher standards and a larger, better-trained work force to meet the needs of families. Career opportunities vary. You could serve as the lead teacher in a group center, provide family child care in a home setting, oversee child care on cruise ships, or work as a nanny. Many child care providers operate their own successful businesses. You have options!

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): August	EFFECTIVE: August 2018

CHILD CARE SERVICES

Technical Diploma

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
	First Semester			
307-148	ECE: Foundations of Early Childhood Education	3	3	Fall only; Program student
307-151	ECE: Infant and Toddler Development	3	3	Fall only; Program student
307-167	ECE: Health, Safety, and Nutrition	4	3	Fall only; Program student, Co-requisite 307-174
307-174	ECE: Introductory Practicum	9	3	Fall only; Program student, Co-requisite 307-167
801-136	English Composition 1 **OR**	3	3	
801-355	Applied Written/Interpersonal Communication	2	1	
	Total Hrs./Week and Total Credits	**21-22 hrs.**	**13-15 cr.**	
	Second Semester			
307-108	ECE: Early Language & Literacy	4	3	Spring only; Program student
307-110	ECE: Social Science, Art, Music & Movement	4	3	Spring only; Program student
307-175	ECE: Preschool Practicum	9	3	Spring only; Program student, 307-174
307-179	ECE: Child Development	3	3	Spring only; Program student
307-188	ECE: Guiding Children's Behavior	3	3	Spring only; Program student
	Total Hrs./Week and Total Credits	**23 hrs.**	**15cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 28 **2.0 MINIMUM PROGRAM CUMULATIVE GPA REQUIRED FOR GRADUATION**

If a student does not enroll in any courses at CVTC for two or more consecutive semesters, the student will be required to reapply with Admissions. Students must abide by any changes in admission requirements and degree requirements.

Cosmetology - 31-502-1

Technical Diploma - One Year

Offered in Eau Claire • August, October, or January entry dates in Eau Claire

Description

If you have a strong interest in personal appearance, have artistic flair, enjoy working with people, and are seeking a career with many excellent employment opportunities, consider the Cosmetology program.

CVTC has a state-of-the-art cosmetology lab. You will gain hands-on experience in a setting as close as possible to the work environment you'll find in this career area.

You will gain a complete understanding of salon operations, from marketing and retailing to hygiene and communication skills. The program includes classroom and hands-on instruction to develop the skills you need:

- Basic and specialty haircutting
- Ethnic hair care
- Manicure, pedicure, and nail enhancements
- Facials, makeup artistry, and color analysis
- Hair designing and styling
- Salon sciences
- Salon operations and management
- Retail sales/marketing
- Wisconsin cosmetology laws
- Bacteriology and sanitation
- Perming and coloring
- Hair, skin, and scalp conditioning
- Professionalism and ethics

The possibilities for employment related to this career are excellent, with good earning potential. More than 40 percent of all the people in this profession are self-employed, and many more work flexible schedules. With a career in the cosmetologist field, you have options!

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): August, October, or January	EFFECTIVE: August 2018

COSMETOLOGY

Technical Diploma

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
	First Semester			***Grade of "C" or better for all prerequisites***
502-301	Haircutting 1 ***[August-October]***	12	3	Program student; Co-requisite: 502-304, 502-310
502-310	Chemical Services 1 ***[August-October]***	12	3	Program student; Co-requisite: 502-301
502-320	Nail Technology ***[August-October]***	8	2	Program student; Co-requisite: 806-323
806-323	Salon Science 1 ***[August-October]***	4	1	Program student; Co-requisite: 502-320
502-304	Haircutting 2 ***[October-December]***	12	3	Program student; 502-310, 502-320, 806-323 or concurrent; Co-requisite: 502-301, 502-321, 806-324
502-321	Salon Services 1 ***[October-December]***	16	4	Program student; 502-301, 502-310, 502-320, 806-323 or concurrent; Co-requisite: 502-304; 806-324
801-356	Applied Job/Interpersonal Communication ***[October-December]*** **OR**	4	1	
801-196	Oral/Interpersonal Communication ***[October-December]***	6	3	
806-324	Salon Science 2 ***[October-December]***	4	1	Program student, 806-323 or concurrent; Co-requisite: 502-304, 502-321
	Total Hrs./Week and Total Credits	**36-38 hrs.**	**18-20 cr.**	
	Second Semester			***Grade of "C" or better for all prerequisites***
502-322	Salon Services 2 ***[January-March]***	16	4	502-301, 502-304, 502-310, 502-320, 502-321, 806-324 (502-314 or concurrent)
502-326	Salon Services Lab ***[January-March]***	8	2	502-301, 502-304, 502-310, 502-320, 502-321, 806-324, (502-311, 502-322, 502-323, 502-330 or concurrent)
502-330	Facial Services ***[January-March]***	8	2	Program student
502-314	Chemical Services 2 ***[March-May]***	12	3	502-301, 502-304, 502-310, 502-320, 502-321, 806-324, (502-322 or concurrent)
502-311	Hair Styling ***[March-May]***	8	2	502-314, 502-322, 502-326 or concurrent; Co-requisite: 502-323
502-323	Salon Services 3 ***[March-May]***	16	4	502-314, 502-322, 502-326 or concurrent; Co-requisite: 502-311
	Total Hrs./Week and Total Credits	**32-36 hrs.**	**17 cr.**	
	Summer Term			***Grade of "C" or better for all prerequisites***
502-305	Haircutting 3 ***[June-July]***	8	2	502-301, 502-304, 502-310, 502-320, 502-321, 806-323, 806-324, (502-314, 502-322 or concurrent)
502-324	Salon Services 4 ***[June-July]***	16	4	102-306, 502-305, 502-311, 502-314, 502-322, 502-323, 502-326, 502-330 or concurrent; Co-requisite: 502-371
102-306	Salon Business & Marketing ***[June-July]***	4	1	Program student
502-371	Advanced Salon Operations ***[June-July]***	8	2	****Students registering for the final 8 week courses must have completed all previous courses with a "C" or better.*** Co-requisite: 502-324
	Total Hrs./Week and Total Credits	**36 hrs.**	**9 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 44 **2.0 MINIMUM PROGRAM CUMULATIVE GPA REQUIRED FOR GRADUATION**

A grade of "C" or better is required in all courses.

If a student does not enroll in any courses at CVTC for two or more consecutive semesters, the student will be required to reapply with Admissions. Students must abide by any changes in admission requirements and degree requirements.

****Students who reenter the program after missing at least one 8-week term are not guaranteed placement. Students should take the entire 48-week program without interruption.***

Culinary Production Specialist - 31-316-2

Technical Diploma - One Year

Offered in Eau Claire • August or January entry date in Eau Claire

Description

The Culinary Production Specialist program will help you develop the skills necessary to pursue a career in the food-service industry within restaurants, bakeries, catering services, delis, hotels, resorts, healthcare facilities and schools. Statistics show that the food service industry is America's #1 retail employer. In Wisconsin and throughout the nation, there is an increasing need for well-trained food service personnel for restaurants, catering enterprises, healthcare facilities and other institutional food service.

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): August or January	EFFECTIVE: August 2018

CULINARY PRODUCTION SPECIALIST

Embedded Technical Diploma

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
	First Semester			
316-101	Food Theory	3	3	Program student
316-102	Introduction to Culinary	10	5	Program student
316-105	Food Safety & Sanitation	2	2	Program student
316-107	Beverage Management	2	2	Program student
804-134	Mathematical Reasoning	4	3	
	Total Credits		**15 cr.**	
	Second Semester			
316-111	Advanced Culinary Arts	10	5	316-101, 316-102, 316-105
316-112	Garde Manger	6	3	Program student
316-114	Purchasing & Receiving	2	2	Program student
316-116	Menu Design & Development	2	2	Program student
801-196	Oral/Interpersonal Communication	3	3	
	Total Credits		**15 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 30

2.0 MINIMUM PROGRAM CUMULATIVE GPA REQUIRED FOR GRADUATION

Diesel Truck Mechanic - 31-412-5

Technical Diploma - One Year

Offered in Eau Claire • August entry date in Eau Claire

Description

The Diesel Truck Mechanic technical diploma is a one-year program designed to prepare an entry-level diesel technician. The 30-credit program covers over-the-road, off-road and stationary applications emphasizing the fundamentals and repair of diesel engines and basic diesel vehicle systems. These systems include brakes, steering and suspension, heating, cooling and electrical systems. Diesel Truck Mechanic courses make up the first year of the Diesel & Heavy Equipment Technical Diploma.

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): August	EFFECTIVE: August 2018

DIESEL TRUCK MECHANIC

Embedded Technical Diploma

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
	First Semester			
412-360	Diesel Fundamentals (L) ***[starts 2 weeks prior to first semester]***	4/8	1	
412-305	Truck Chassis I (T, L) ***[1st 8 weeks]***	20	5	Program student, Co-requisite: 412-306
412-306	Truck Chassis II (T, L) ***[2nd 8 weeks]***	20	5	Co-requisite: 412-305
412-345	Basic DC Electricity (T, L)	4	2	Program student
442-314B	Related Welding for Diesel (L)	4	2	Program student
801-355	Applied Written/Interpersonal Communication (T)	2	1	
	Total Hrs./Week and Total Credits	**30-32 hrs.**	**16 cr.**	
	Second Semester			
412-307	Chassis Electrical (T, L)	10	5	412-306, Co-requisites: 412-308, 412-309
412-308	Mechanical Gear Trains (T, L)	8	4	412-306, Co-requisites: 412-307, 412-309
412-309	Heavy Duty Truck HVAC & Refrigeration (T, L)	6	3	Program student; 412-306; Co-requisites: 412-307, 412-308
804-360	Math for Technical Trades (T)	4	2	
	Total Hrs./Week and Total Credits	**28 hrs.**	**14 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 30 **2.0 MINIMUM PROGRAM CUMULATIVE GPA REQUIRED FOR GRADUATION**

Electrical Power Distribution - 31-413-2

Technical Diploma - One Year

Offered in Eau Claire • June entry date in Eau Claire

Description

If you enjoy working outdoors and like solving problems with both your head and your hands, the Electrical Power Distribution program might be a good match for you. Graduates of this program are helping to keep our country's electrical distribution network in good working order and expanding the network to provide better service.

The program includes instruction in the fundamentals of electrical theory. Through classroom and outdoor lab activities you'll learn the skills you need to succeed in this career area:

- Operate line equipment
- Climb distribution and transmission structures
- Build and maintain overhead and underground power lines
- Install transformers, capacitors, and KWH meters
- Tie rope knots
- Perform hotline maintenance

You'll learn how to use protective equipment such as fuses, circuit breakers, and lightning arrestors. You'll operate hydraulic equipment such as aerial lift trucks, digger/derrick trucks, and trencher/backhoes. You'll receive training in performing first aid, CPR, and AED (Automatic External Defibrillator). And since you'll need a commercial driver's license to haul equipment, a three-credit unrestricted Class "A" CDL course is included in the program.

To succeed, you'll need good reading and math skills. As a student, you'll be subject to random controlled substance and alcohol testing. As an employee, you'll need a good driving record.

It's a rewarding, challenging career area. This could be the educational program you're looking for!

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): June	EFFECTIVE: June 2018

ELECTRICAL POWER DISTRIBUTION

Technical Diploma

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
	First Semester (June –July)			
413-310	Basic EPD Safety (T)	8	2	Program student
413-311	Introduction to Pole Climbing (L)	8	2	Program student
804-360	Math for Technical Trades (T)	8	2	
413-312	Basic EPD Electricity (T)	4	1	Program student
413-313	URD Installation & Termination (L)	8	2	Program student
	Total Credits		**9 cr.**	
	Second Semester (August-December)			
413-320	Intermediate EPD Electricity (T) ***[1st 8 weeks]***	16	4	Program student, 413-310, 413-311, 413-312, 413-313, 804-360
413-321	OH Line Design & Construction (L) ***[1st 8 weeks]***	20	5	Program student, 413-310, 413-311, 413-312, 413-313, 804-360
801-357	Applied Written/Job Seeking Communication (T) ***[1st 8 weeks]***	4	1	
458-307	CDL License Training – Online ***[1st 8 weeks]***	4	2	
458-308	CDL License Training – Pre-Trip ***[1st 8 weeks]***	6	1	458-307, 458-309 or concurrent
809-351	Occupational Relations (T) ***[2nd 8 weeks]***	3	2	
458-309	CDL License Training – Lab (L) ***[2nd 8 weeks]***	2	1	458-307, 458-308 or concurrent
	Total Credits		**16 cr.**	
	Third Semester (January-March)			
413-330	Advanced EPD Safety (T) ***[8 weeks]***	8	2	Program student, 413-310, 413-311, 413-312, 413-313, 804-360
413-331	Power Line Apparatus (L) ***[8 weeks]***	8	2	Program student, 413-310, 413-311, 413-312, 413-313, 413-320, 413-321, 804-360
413-332	Advanced EPD Electricity (T) ***[8 weeks]***	8	2	Program student, 413-310, 413-311, 413-312, 413-313, 413-320, 413-321, 804-360
413-333	Transmission Line Construction (L) ***[8 weeks]***	8	2	Program student, 413-310, 413-311, 413-312, 413-313, 413-320, 413-321, 804-360
806-342	Science for Technical Trades (T, L) ***[8 weeks]***	8	2	804-360
	Total Credits		**10 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 35 **2.0 MINIMUM PROGRAM CUMULATIVE GPA REQUIRED FOR GRADUATION**

If a student does not enroll in any courses at CVTC for two or more consecutive semesters, the student will be required to reapply with Admissions. Students must abide by any changes in admission requirements and degree requirements.

L = Lab
T = Theory/Lecture

Electromechanical Maintenance Technician - 31-620-3

Technical Diploma - One Year

Offered in River Falls • August entry date in River Falls

Description

The Electromechanical Maintenance Technician program prepares individuals with a diverse skill set that is in high demand in modern manufacturing facilities. The program develops knowledge and skills in electrical and electronic circuits, AC and DC motors, industrial wiring and relay logic and fluid power applications.

After successful completion of the Electromechanical Maintenance Technician Technical Diploma, the student has the opportunity to apply these credits to the Automation Systems Technology Associate Degree two-year program and enter the second year of the program.

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): August	CAMPUS: River Falls	EFFECTIVE: August 2018

ELECTROMECHANICAL MAINTENANCE TECHNICIAN

Embedded Technical Diploma

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
	First Semester			
605-107	Basic Electronics **OR**	5	3	
605-110	Basic Electronics: DC/AC **AND**	4	2	
605-111	Basic Electronics: Reactive Components	2	1	605-110 or concurrent
606-185	Blueprint Reading	2	1	
612-101	Related Fluid Power	4	2	
620-101	Automated Processes	3	2	
620-155	Industrial Electronics I **OR**	3	2	
620-107	Industrial Electronics Basics I **AND**	2	1	
620-108	Industrial Electronics Basics II	2	1	620-107 or concurrent
620-193	Electronic Software Applications	4	2	
	Total Hrs./Week and Total Credits		**12 cr.**	
	Second Semester			
605-108	Devices and Digital **OR**	5	3	605-107 or 605-111
605-120	Devices **AND**	4	2	605-107 or 605-111
605-130	Digital Electronics	2	1	605-107 or 605-111
620-135	PLC Introduction	3	2	620-155 or 620-108 or instructor permission
620-144	Applied EM Machine Principles	4	2	
620-156	Industrial Electronics II	3	2	605-107 (or 605-111), 620-155 (or 620-108), 620-193
801-136	English Composition 1	3	3	
	Total Hrs./Week and Total Credits		**12 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 24 **2.0 MINIMUM PROGRAM CUMULATIVE GPA REQUIRED FOR GRADUATION**

Entrepreneurship - 31-145-2

Technical Diploma - One Year

Offered in Eau Claire • August entry date in Eau Claire

Description

The entrepreneurship diploma program gives students the fundamentals to start and operate their own businesses. Coursework includes developing and evaluating a business idea, preparing a business plan, managing finances, analyzing legal issues, evaluating successful entrepreneurial marketing strategies, developing entrepreneurial communication skills, and more. Students will be encouraged to develop valuable mentor relationships with local seasoned entrepreneurs.

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): August	EFFECTIVE: August 2018

ENTREPRENEURSHIP

Technical Diploma

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
	First Term			
101-105	Intro to Accounting	3	3	
101-149	Intro to QuickBooks	4	2	
102-130	Innovative Business Mindset	3	3	
104-102	Marketing Principles	3	3	
145-103	Entrepreneurial Ideas	3	3	
145-104	Entrepreneurial Communication	2	2	
	Total Hrs./Week and Total Credits	**18 hrs.**	**16 cr.**	
	Second Term			
101-172	Business Finance	3	3	
102-160	Business Law	6	3	
145-108	Entrepreneurial Marketing ***[1st 8 weeks]***	4	2	104-102
145-106	Entrepreneurial Management ***[2nd 8 weeks]***	6	3	
145-109	Entrepreneurial Capstone ***[2nd 8 weeks]***	6	3	Instructor Approval
	Total Hrs./Week and Total Credits	**14 hrs.**	**14 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 30 **2.0 MINIMUM PROGRAM CUMULATIVE GPA REQUIRED FOR GRADUATION**

If a student does not enroll in any courses at CVTC for two or more consecutive semesters, the student will be required to reapply with Admissions. Students must abide by any changes in admission requirements and degree requirements.

Farm Operation - 31-080-4

Technical Diploma - One Year

Offered in Eau Claire • October entry date in Eau Claire

Description

This program is designed to meet the unique training needs of a student who plans to enter the field of farming. Students will receive a broad array of training in livestock production, crops & soils, and farm financial management. Students will learn about nutrient management, row crop management, agriculture equipment and related technology, marketing, record keeping, financial management, animal health, animal reproduction, feed analysis, and nutrition. On campus classes will run November-March for two years. Farm Business classes will be tailored to meet the individual student needs with a combination of group training & individualized instruction.

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): October	EFFECTIVE: October 2018

FARM OPERATION

Technical Diploma

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
	First Term			
080-310	Farm Business Financial Management	10	5	
080-312	Livestock Reproduction & Nutrition	8	4	
080-314	Crop Production & Soil Fertility	8	4	
	Total Hrs./Week and Total Credits	**36 hrs.**	**13 cr.**	
	Second Term			
080-320	Farm Business Planning & Analysis	10	5	
080-322	Animal Husbandry & Management	8	4	
080-324	Field Applications	8	4	
	Total Hrs./Week and Total Credits	**36 hrs.**	**13 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 26 **2.0 MINIMUM PROGRAM CUMULATIVE GPA REQUIRED FOR GRADUATION**

Industrial Mechanic - 31-462-2

Technical Diploma - One Year

Offered in Eau Claire • June, August, October, January, or March entry dates in Eau Claire

Description

If you have an interest in working with technology, enjoy troubleshooting systems, and take pride in craftsmanship, the Industrial Mechanic program could be a good match for you.

This program will prepare you to install, maintain, operate, diagnose, and repair automated equipment used in manufacturing industries. Your career could take you to facilities with automated systems that create the products we use every day.

In just 40 weeks, the Industrial Mechanics program provides you with the skills you need in essential career areas:

- Mechanics
- Electrical
- Pneumatics
- Troubleshooting
- Welding
- Hydraulics
- Programmable Logic Controllers (PLCs)
- Maintenance

As a multi-skilled industrial mechanic, you will become proficient in areas that greatly enhance your employment opportunities:

- Laser alignment
- Thermal and vibration analysis
- Mechanical equipment installation, disassembly, and assembly
- Pneumatics and hydraulics
- Conveyance systems
- Machine tool
- Electrical troubleshooting
- Building System Maintenance
- Welding
- Preventative maintenance
- Automated machine troubleshooting
- Programmable Logic Controllers (PLCs)

According to the Department of Labor, graduates with broad skills in machine repair and maintenance should have favorable job prospects. Some employers have reported difficulty in recruiting workers with the necessary skills. This could be the career area and educational program you've been searching for!

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): June, August, October, January, and March	EFFECTIVE: June 2018

INDUSTRIAL MECHANIC - DAYTIME

Technical Diploma

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
	First Semester			
419-116	Basic Hydraulics	4	2	Program student or instructor approval
419-117	Basic Pneumatics	4	2	Program student or instructor approval
442-120	Related Welding- Industrial Mechanic **OR**	4	2	Program student or instructor approval
106-114	Customer Communication Techniques **AND**	4	1	
106-115	Customer Care Strategies	4	1	
462-111	Mechanical Concepts	4	2	Program student or instructor approval
462-115	Industrial PC Applications	4	2	Program student or instructor approval
462-119	Industrial Mechanical Skills	4	2	Program student or instructor approval
462-130	Mechanic Prints and Networks	2	1	Program student or instructor approval
625-180	Manufacturing Skills Standards	2	2	
	Total Credits		**15 cr.**	
	Second Semester			
462-118	Industrial Electricity Principles	6	3	Program student or instructor approval
462-120	Centrifugal Pumps & Alignment	6	3	Program student, 462-126 or concurrent, or instructor approval
462-121	IOT Automated Manufacturing	8	4	Program student, 462-118 or concurrent, or instructor approval
462-123	PLC Manufacturing Applications	6	3	Program student, 462-121 or concurrent, or instructor approval
462-126	Mechanical Alignment & Bearings	4	2	Program student, 462-111, 462-119 or concurrent, or instructor approval
	Total Credits		**15 cr.**	
	Third Semester (8 weeks)			
419-102	Hydraulic System Operations	8	2	Program student, 419-116 or instructor approval
419-118	Pneumatic System Operations	8	2	Program student, 419-117 or instructor approval
462-122	Preventative and Periodic Maintenance	4	1	Program student, 462-111 or instructor approval
462-132	Machine Troubleshooting & Repair, Advanced	8	2	Program student, 462-120, (462-123, 419-102, 419-118 or concurrent) or instructor approval
	Total Credits		**7 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 37 **2.0 MINIMUM PROGRAM CUMULATIVE GPA REQUIRED FOR GRADUATION**

If a student does not enroll in any courses at CVTC for two or more consecutive semesters, the student will be required to reapply with Admissions. Students must abide by any changes in admission requirements and degree requirements.

Landscape, Plant & Turf Technician - 31-001-1

Technical Diploma - One Year

Offered in Eau Claire • August entry date in Eau Claire

Description

The Landscape, Plant & Turf Technician student will be prepared for a job in the industry by completing one year of course work. The focus will be on landscaping and turf maintenance. An understanding of soils, insects, diseases and weeds will be explored. Students will be able to have many experiences with a variety of hands on learning activities. The Landscape, Plant & Turf Technician includes the Wisconsin Commercial Pesticide Applicator Certification.

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): August	EFFECTIVE: August 2018

LANDSCAPE, PLANT & TURF TECHNICIAN

Embedded Technical Diploma

Course Number	Course Title	Credits	Prerequisite(s)/Comments
	First Semester		
001-100	Introduction to Horticulture (T, L)	3	Fall only, Program or pre-program student
001-116	Landscape Plants (T, L)	2	Fall only, Program or pre-program student
001-120	Horticulture Soils (T, L)	3	Fall only, Program or pre-program student
801-136	English Composition 1 (T)	3	
804-134	Mathematical Reasoning	3	
	Total Hrs./Week and Total Credits	**14 cr.**	
	Winter Term		
001-108	Business Apps for the Green Industry (T)	2	Winter only, Program or pre-program student
	Total Hrs./Week and Total Credits	**2 cr.**	
	Second Semester		
001-103	Turf Management and Irrigation (T, L) ***[14 weeks]***	2	Spring only, Program or pre-program student
001-113	Pesticide and Fertilizer Applications (T, L) ***[14 weeks]***	3	Spring only, Program or pre-program student
001-110	Integrated Plant/Pest Management (T, L) ***[1st 8 weeks]***	2	Spring only, Program or pre-program student
001-125	Horticulture Equipment & Safety (T) ***[2nd 8 weeks]***	2	Spring only, Program or pre-program student
801-196	Oral/Interpersonal Communication (T) ***[1st 8 weeks]***	3	
	Total Hrs./Week and Total Credits	**12 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 28 **2.0 MINIMUM PROGRAM CUMULATIVE GPA REQUIRED FOR GRADUATION**

Livestock Technician - 31-091-4

Technical Diploma - One Year

Offered in Eau Claire • August entry date in Eau Claire

Description

In CVTC's Livestock Technician program, students learn to test for feeds and feeding methods, animal husbandry, management software programs, breeding and genetics, and what nourishes livestock efficiently and economically. Students gain a thorough understanding of science and husbandry through participation in farm learning labs on 30 CVTC cooperating lab farms. Hands on and classroom instruction provides graduates with technical, management, and economic training that prepares them for successful herd management.

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): August	EFFECTIVE: August 2018

LIVESTOCK TECHNICIAN

Embedded Technical Diploma

Course Number	Course Title	Credits	Prerequisite(s)/Comments
	First Semester		
091-180	Animal Science	3	
091-110	Livestock Evaluation and Judging	2	
091-112	Livestock Modernization	2	
006-105	Industry Skills	2	
804-134	Mathematical Reasoning	3	
801-136	English Composition	3	
	Total Hrs./Week and Total Credits	**15 cr.**	
	Winter Term		
091-122	Animal Breeding and Genetics	2	
	Total Credits	**2 cr.**	
	Second Semester		
091-120	Livestock Housing ***[1st 12 weeks]***	2	
091-188	Feed Analysis ***[1st 8 weeks]***	2	
091-184	Herd Health ***[1st 12 weeks]***	3	
802-103	Spanish for the Workforce ***[1st 8 weeks]***	2	
801-196	Oral/Interpersonal Communication ***[1st 8 weeks]***	3	
	Total Hrs./Week and Total Credits	**12 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 29 **2.0 MINIMUM PROGRAM CUMULATIVE GPA REQUIRED FOR GRADUATION**

Machine Tool Operator - 31-420-8

Technical Diploma - One Year

Offered in Eau Claire • June, August, October, January, or March, entry dates in Eau Claire

Description

The Machine Tooling Operation Program (1 year) provides training for entry-level employment in a machining environment. Students will be exposed to manual lathes & mills, Computer Numerical Control (CNC) machines, Computer Aided Design/Computer Aided Manufacturing (CAD/CAM) workstations, and Coordinate Measuring Machines (CMM). Students will gain the foundational knowledge and skills necessary to operate a variety of machine tools, along with other support equipment, to be able to produce parts to meet print specifications.

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): June, August, October, January, March	EFFECTIVE: Fall 2018

MACHINE TOOL OPERATOR

Embedded Technical Diploma

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
	First Semester			
420-300	Machine Shop Theory	2	1	Program student; Co-requisite 420-321, 420-373
420-321	Manual Turning Processes	10	5	Program student; Co-requisite 420-300, 420-373
420-322	Manual Milling Processes	10	5	Program student; Co-requisite 420-300, 420-321, 420-373
804-360	Math for Technical Trades ***[8 weeks]***	8	2	
421-385	MT Blueprint Reading and GD&T ***[8 weeks]***	8	2	Program student
420-373	Precision Measurement	2	1	Program student; Co-requisite 420-300, 420-321
	Total Hrs./Week and Total Credits	**32**	**16 cr.**	
	Second Semester			
420-310	CNC Programming Theory	2	1	420-321, 420-322, (804-360 or concurrent); Co-requisite 420-325, 420-330
420-330	Basic CNC Lathe Programming	10	5	420-321; Co-requisite 420-325
420-341	Materials for Machinists	4	2	420-321, 420-322
420-325	Basic CNC Mill Programming	10	5	420-322; Co-requisite 420-330
420-380	2-D CAM	4	2	420-325 or concurrent
804-362	Math 20	4	2	804-360
	Total Hrs./Week and Total Credits	**34**	**17 cr.**	

TOTAL CREDITS REQUIRED = 33 **MINIMUM 2.0 CUMULATIVE GPA REQUIRED FOR GRADUATION**

Medical Assistant - 31-509-1

Technical Diploma - One Year

Offered in Eau Claire • August or January entry dates in Eau Claire

Description

If you enjoy working with people, are detail oriented, have good communication skills, and seek a career in the health care field, the Medical Assistant program could be a good match for you.

Medical assistants help physicians by providing patient care, obtaining vital signs, and assisting with examinations and minor office surgery. Medical assistants also administer injectable medications and perform basic diagnostic testing (e.g. EKGs). They instruct patients about tests, procedures, and treatments. Besides patient care skills, medical assistants also perform:

- Administrative and laboratory functions
- Schedule appointments
- Maintain paper and electronic medical records
- Perform bookkeeping
- Complete insurance forms
- Perform medical correspondence
- Collect specimens
- Prepare lab specimens
- Perform basic laboratory tests

As a graduate of the program, you are eligible to take the American Association of Medical Assistant national certification exam. Upon successful completion of this test, you can use the title Certified Medical Assistant [CMA (AAMA)]. The Medical Assistant program is accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org), upon the recommendation of the Medical Assisting Education Review Board (MAERB). Commission on Accreditation of Allied Health Education Programs, 1361 Park Street, Clearwater, FL 33756, phone 727-210-2350.

There is a strong demand for people who are trained for clinical and administrative duties. This could be an excellent career area for you!

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu – 1-800-547-2882

START DATE(S): August or January	EFFECTIVE: August 2018

MEDICAL ASSISTANT

Technical Diploma

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
	First Semester			
501-107	Digital Literacy for Healthcare (T)	2	2	Program or pre-program student
501-101	Medical Terminology (T)	3	3	
509-302	Human Body in Health and Disease (T)	6	3	Program or pre-program student; 501-101 or concurrent, (836-113 or High School Biology)
509-303	Medical Assistant Laboratory Procedures 1 (T, L)	4	2	Program student; Co-Requisite: 509-304
509-304	Medical Assistant Clinical Procedures 1 (T, L)	8	4	Program student; 501-101, 501-107, 509-302 or concurrent; Co-Requisite: 509-303
801-136	English Composition 1	3	3	
	Total Hrs./Week and Total Credits	**26 hrs.**	**17 cr.**	
	Second Semester			
509-301	Medical Assistant Administrative Procedures (T) ***[Weeks 1-10]***	4	2	Program student; 501-107 or concurrent
509-305	Medical Assistant Laboratory Procedures 2 (T, L) ***[Weeks 1-8]***	8	2	Program student; 501-101, 501-107, 509-302, 509-303, 509-304, 801-136, (509-301, 509-307, 509-309 or concurrent); Co-Requisite: 509-306, 509-310
509-306	Medical Assistant Clinical Procedures 2 (T, L) ***[Weeks 1-10]***	10	3	Program student; 501-101, 501-107, 509-302, 509-303, 509-304, (801-136, 509-301, 509-307, 509-309 or concurrent); Co-Requisite: 509-305, 509-310
509-307	Medical Office Insurance and Finance (T) ***[Weeks 1-10]***	6	2	Program student; 501-101, 509-302, (501-107 or concurrent)
501-308	Pharmacology for Allied Health (T) ***[Weeks 1-10]***	6	2	Program student; 501-101, 501-107, 509-302, 509-303, 509-304, (801-136, 509-301, 509-307, 509-309 or concurrent); Co-Requisite: 509-305, 509-306, 509-310
509-309	Medical Law, Ethics and Professionalism (T) ***[Weeks 1-10]***	4	2	Program or pre-program student
509-310	Medical Assistant Practicum (C) ***[Weeks 11-16]*** (Weekday, Daytime clinical – 192 hours)	36	3	Program student; 501-107, 501-101, 509-302, 509-303, 509-304, 801-136, (509-301, 509-309, 501-308, 509-305, 509-306, 509-307 or concurrent)
	Total Hrs./Week and Total Credits	**38 hrs.**	**16 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 33 **A GRADE OF "C" OR BETTER IS REQUIRED IN ALL COURSES**

If a student does not enroll in any courses at CVTC for two or more consecutive Terms, the student will be required to reapply with Admissions. Students must abide by any changes in admission requirements and degree requirements.

T – Theory L – Lab C - Clinical

If a student is not successful in 509-303 or 509-304, the student will be required to reapply for program admission.

Motorcycle, Marine & Outdoor Power Products Technician - 31-461-2

Technical Diploma - One Year

Offered in Eau Claire • August entry date in Eau Claire

Description

If you enjoy figuring out how things work, repairing engines, and associating with late-breaking technology, you are a good candidate for the Motorcycle, Marine and Outdoor Power Products Technician program.

You'll learn how to efficiently diagnose mechanical, fuel, and electrical problems and make repairs quickly. In addition to classroom activities, you'll learn through hands-on practice in a lab designed to be as much like real-life experience as possible. Throughout the semester, you'll develop the broad skill base employers are looking for through working on inboard and outboard engines as well as engines that power motorcycles, ATVs, snowmobiles, and other recreational vehicles; lawn mowers, chain saws, and more.

Your program includes experience with E-TEC, the technology behind today's energy-efficient, low-emissions two-stroke engines. This new engineering has produced two-stroke engines that meet Environmental Protection Agency (EPA) standards, and the entire industry will be affected. Your ability to diagnose and repair boat motors, snowmobiles, and other recreational vehicles with E-TEC engineering can give you a competitive edge in the marketplace. There are few training centers nationwide with the facilities and capabilities of CVTC's Motorcycle, Marine and Outdoor Products Technician program.

With just one year of training, you could be well on your way to a career as a motorcycle, marine and outdoor power products technician. This could be the program for you!

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): August	EFFECTIVE: August 2018

MOTORCYCLE, MARINE AND OUTDOOR POWER PRODUCTS TECHNICIAN

Technical Diploma

Course Number	Course Title	Credits	Prerequisite(s)/Comments
	First Semester		
442-314A	Related Welding, Marine	2	Program student
461-310	Basic Engines/Systems, Intro to ***(1st 8 weeks)***	5	Fall only; Program student; 461-312 or concurrent
461-312	Engine Theory 1	2	Fall only; 461-310 or concurrent
461-330	Marine Outboards ***(2nd 8 weeks)*** **OR**	5	461-310, 461-312 or concurrent
461-340	Marine Inboards ***(2nd 8 weeks)***	5	461-310, 461-312 or concurrent
804-360	Math for Technical Trades	2	
	Total Hrs./Week and Total Credits	**16 cr.**	
	Second Semester		
461-313	Engine Theory 2	2	Spring only; 461-310, 461-312
461-330	Marine Outboards ***(1st 8 weeks)*** **OR**	5	461-310, 461-312 or concurrent
461-340	Marine Inboards ***(1st 8 weeks)***	5	461-310, 461-312 or concurrent
461-320	Snowmobiles and ATVs ***(2nd 8 weeks)*** **OR**	5	461-310, 461-312 or concurrent
461-360	Motorcycles ***(2nd 8 weeks)***	5	461-310, 461-312 or concurrent
801-356	Applied Job/Interpersonal Communication	1	
809-351	Occupational Relations	2	
	Total Hrs./Week and Total Credits	**15 cr.**	
	Third Semester (Summer)		
461-314	Engine Theory 3	1	Summer only; 461-310, 461-313
461-320	Snowmobiles and ATVs **OR**	5	461-310, 461-312 or concurrent
461-360	Motorcycles	5	461-310, 461-312 or concurrent
	Total Hrs./Week and Total Credits	**6 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 37 **2.0 MINIMUM PROGRAM CUMULATIVE GPA REQUIRED FOR GRADUATION**

This program operates on a year-round basis; therefore, summer semester attendance is required in addition to regular school year attendance. If a student does not enroll in any courses at CVTC for two or more consecutive semesters, the student will be required to reapply with Admissions. Students must abide by any changes in admission requirements and degree requirements. In addition, this may delay program completion.

DeptChair/PgmDir: RPOLZER Dean: JSULLIVAN AcadAdvisor: BROZMENOSKI PgmAssist: LJENKINS
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Office Assistant - 31-106-1

Technical Diploma - One Year

Offered in Eau Claire and River Falls • August entry date in Eau Claire, August entry date in River Falls

Description

The Office Assistant program prepares students to perform a variety of administrative tasks in today's rapidly changing office. Students learn to integrate computer, human relations, and communication skills working individually and in a business team environment.

You will develop or enhance the following professional skills in the Office Assistant program. The ability to:

- Keyboard quickly and accurately, using a variety of computer software packages
- Format and produce business documents
- Exhibit excellent customer relations skills in person and over the telephone
- Use accurate filing and records management procedures
- Understand the basics of email and the Internet
- Use spelling, punctuation, and grammar correctly
- Display a professional attitude, appearance, and behavior
- Show your organizational skills
- Communicate effectively in oral and written communication

Many qualities and traits are essential to a successful office assistant. Some characteristics you'll find emphasized in this program are:

- honesty and integrity
- flexibility, a positive attitude, confidence, and poise
- communication skills-both written and oral
- organizational and time management skills
- a professional image

An internship in a local business office is included in the second semester of this program.

After successful completion of the Office Assistant technical diploma program, the student may apply these credits to the Executive Assistant associate degree program and enter the second year of the program.

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): August	EFFECTIVE: August 2018

OFFICE ASSISTANT

Embedded Technical Diploma

Course Number	Course Title	Weeks	Hrs./ Week	Credits	Prerequisite(s)/Comments
	First Term				
103-102	Microsoft Office Suite	1-8	4	2	Fall only
106-150	Office Procedures 1 **OR**	1-4	4	1	Fall only
509-130	Medical Office Procedures	9-16	6	2	Program student
106-113	Customer Service Foundations	5-8	4	1	Fall only
106-152	Job Search-Bus Support Professional 1	9-12	4	1	Fall only
106-114	Customer Communication Techniques	9-12	4	1	Fall only
106-115	Customer Care Strategies	13-16	4	1	Fall only
106-172	Microsoft Outlook	13-16	4	1	Fall only
101-105	Accounting, Intro to **OR**		3	3	
106-162	Legal Terminology **OR**		3		Fall only
501-101	Medical Terminology		3		
809-198	Introduction to Psychology **OR**		3	3	
809-199	Psychology of Human Relations		3		
	Total Hrs./Week and Total Credits		**14-20 hrs.**	**14-15 cr.**	
	Second Term				
106-122	Document Processing	1-4	8	1	Spring only, 103-102
106-139	Business Presentations	1-4	4	1	Spring only, 103-102
106-128	Business Words at Work 1	5-8	8	1	Spring only, 103-102
106-160	Office Procedures 2	5-8	4	1	Spring only
106-129	Business Words at Work 2	9-12	4	1	Spring only, 106-128 or concurrent
106-130	Business Words at Work 3	13-16	4	1	Spring only, 106-129 or concurrent
106-135	Business Support Professional Internship 1 (64 hours)	9-16	8	1	Spring only, 106-122, 106-130, 106-172 or concurrent
102-109	Business Analytics		3	3	
101-149	Introduction to QuickBooks **OR**		4	2	
106-182	Legal Computing **OR**		2		Spring only
530-103	Medical Insurance & Billing		2		
809-103	Think Critically and Creatively		3	3	
	Total Hrs./Week and Total Credits		**20-22 hrs.**	**15 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 29 **2.0 MINIMUM PROGRAM CUMULATIVE GPA REQUIRED FOR GRADUATION**

If a student does not enroll in any courses at CVTC for two or more consecutive semesters, the student will be required to reapply with Admissions. Students must abide by any changes in admission requirements and degree requirements.

Paramedic - 31-531-1

Technical Diploma - One Year

Offered in Eau Claire • August entry date in Eau Claire

Description

Chippewa Valley Technical College offers a one-year technical diploma in Emergency Medical Technician-Paramedic Advanced that allows graduates to become licensed Emergency Medical Technician-Paramedics. This program is offered as a full-time program starting in August.

Students learn advanced prehospital skills in the classroom, skills laboratory, hospital clinical setting, and in prehospital clinical settings. Students will learn to:

- provide advanced airway maintenance, advanced trauma and cardiac life support
- provide special care of the obstetric, neonatal, pediatric, and geriatric patient
- initiate IV lines
- administer emergency medications

The program includes both classroom and clinical training that runs over three semesters. Students spend an average of 16 hours per week in the hospital clinical setting, with hospital clinicals offered concurrently with classroom training. In addition to classroom and clinical experience, the students will also participate in a supervised field experience. There will be some travel required for clinical and supervised field experience.

Students who successfully complete the program are eligible to take the National Registry examination for EMT-Paramedics.

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu – 1-800-547-2882

START DATE(S): August	EFFECTIVE: August 2018

PARAMEDIC

Technical Diploma

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
	First Semester			
806-177	General A&P	5	4	High School Chemistry (or 836-133 or 806-134 with a C or better, or concurrent)
531-911	EMS Fundamental	2	2	Program student
531-912	Paramedic Medical Principles	4	4	Program student; 531-911 or concurrent
	Total Credits		**10 cr.**	
	Second Semester			
531-913	Advanced Patient Assessment Principles (T, L)	4	3	Program student; 531-912
531-914	Advanced Pre-hospital Pharmacology (T, L)	4	3	Program student; 531-913 or concurrent
531-915	Paramedic Respiratory Management (T, L)	3	2	Program student; 531-914 or concurrent
531-916	Paramedic Cardiology (T, L)	5	4	Program student; 531-915 or concurrent
531-918	Advanced Emergency Resuscitation (L)	2	1	Program student
531-925	Paramedic Clinical/Field 1A ***(128 hours)***	8	2	Program student; 531-916 or concurrent
	Total Credits		**15 cr.**	
	Third Semester (Summer)			
531-926	Paramedic Clinical/Field 1B ***(64 hours)***	4	1	Program student; 531-925 or concurrent
531-919	Paramedic Medical Emergencies (T)	4	4	Program student
531-920	Paramedic Trauma (T, L)	4	3	Program student; 531-919 or concurrent
	Total Credits		**8 cr.**	
	Fourth Semester			
531-921	Special Patient Populations (T, L)	4	3	Program student; 531-920 or concurrent
531-922	EMS Operations (T)	1	1	Program student; 531-921 or concurrent
531-923	Paramedic Capstone (L)	2	1	Program student; 531-922 or concurrent
531-924	Paramedic Clinical/Field 2 ***(265 hours)***	16	4	Program student
	Total Credits		**9 cr.**	

TOTAL CREDITS REQUIRED = 42

A grade of "C" or better is required in all courses to graduate with an EMT - Paramedic Technical Diploma (31-531-1).

If a student does not enroll in any courses at CVTC for two or more consecutive semesters, the student will be required to reapply with Admissions. Students must abide by any changes in admission requirements and degree requirements.

A grade of "C" or better is required in all courses.

T = Theory L = Lab

31-531-1

Pharmacy Technician - 31-536-1

Technical Diploma - One Year

Offered in Eau Claire • August entry date in Eau Claire

Description

The Pharmacy Technician program may be a good match for you if you:

- Enjoy working with people
- Have strong customer service skills
- Prefer to work as a member of a team
- Are alert, observant, and organize.
- Can accept responsibility
- Have strong mathematics, spelling, and reading skills

Upon graduation, you will be encouraged to take the PTCB National Certification Exam to become certified. Certification is required in some states and generally results in increased pay.

As a pharmacy technician, you'll assist the pharmacist:

- Package and label prescription drugs
- Prepare intravenous mixtures
- Receive and inventory drug shipments
- Maintain manual/computer records
- Provide office services as needed
- Compound medications

All pharmacy technicians are held to high standards. You must:

- Comprehend and use medical and drug terminology common to pharmaceutical environments
- Recognize and apply the knowledge of ethical and legal implications of your actions as it relates to yourselves, the pharmacist, and the pharmacy
- Be precise and accurate in all your professional actions

You'll work the same hours as the pharmacists, and that may include evenings, nights, weekends, and holidays. Job prospects are expected to continue to be good. This could be the program and career you're looking for!

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): August	EFFECTIVE: August 2018

PHARMACY TECHNICIAN

Technical Diploma

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
	First Semester			
501-101	Medical Terminology (T)	3	3	
536-110	Pharmaceutical Calculations (T)	3	3	Program student, Co-requisite: 536-112, 536-115, 536-120, 536-134, 536-138, (501-101 or concurrent)
536-112	Pharmacy Business Applications (T, L)	5	4	Program student, Co-requisite: 536-110, 536-115, 536-120, 536-134, 536-138
536-115	Pharmacy Law (T)	2	2	Program student, Co-requisite: 536-110, 536-112, 536-120, 536-134, 536-138
536-120	Fundamentals of Reading Prescriptions (T) ***[1st 8 weeks]***	4	2	Program student, Co-requisite: 536-110, 536-112, 536-115, 536-134, 536-138
536-134	Pharmacy Benefits-Managing (T) ***[2nd 8 weeks]***	2	1	Program student, Co-requisite: 536-110, 536-112, 536-115, 536-120 , 536-138
536-138	Pharmacy Community Clinical (C) ***[2nd 8 weeks]***	16	2	Program student, Co-requisite: 536-110, 536-112, 536-115, 536-120, 536-134
	Total Hrs./Week and Total Credits	**24 hrs.**	**17 cr.**	
	Second Semester			
536-122	Pharmacology for Pharmacy Technician (T)	3	3	Program student, Co-requisite: 536-124, 536-126, 536-140, 536-141
536-124	Pharmacy Drug Dist. Systems (T) ***[1st 8 weeks]***	2	1	Program student, 536-112, 536-134, 536-138, Co-requisite: 536-122, 536-126, 536-140, 536-141
536-126	Pharmacy Parenteral Admixtures (T)	3	3	Program student, Co-requisites: 536-122, 536-124, 536-140, 536-141
536-140	Pharmacy Hospital Clinical (C)	7	2	Program student, Co-requisites: 536-122, 536-124, 536-126, 536-141
536-141	Hospital Pharmacy Lab (L)	4	2	Program student, Co-requisites: 536-122, 536-124, 536-126, 536-140
801-196	Oral/Interpersonal Communication (T)	3	3	
809-199	Psychology of Human Relations (T)	3	3	
	Total Hrs./Week and Total Credits	**24 hrs.**	**17 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 34 **A GRADE OF "C" OR BETTER IS REQUIRED IN ALL COURSES**

C = Clinical L = Lab T = Theory/Lecture

Students must successfully complete courses designated as "1st 8 weeks" before progressing to the "2nd 8 week" courses.

If a student does not enroll in any courses at CVTC for two or more consecutive semesters, the student will be required to reapply with Admissions. Students must abide by any changes in admission requirements and degree requirements.

Program students who interrupt their program for any reason must meet with an academic advisor, apply to the Re-entry list (R list), and will be admitted to core classes on a space available basis.

Residential Construction - 31-475-3

Technical Diploma - One Year

Offered in Eau Claire and River Falls • August entry date in Eau Claire, August entry date in River Falls

Description

The Residential Construction program can help you prepare for a variety of careers in the home building industry. This field needs people with physical abilities and good analytical skills such as:

- Strong Initiative
- Excellent manual dexterity
- Good eye-hand coordination
- Good sense of balance
- Good business sense and math skills
- Well-developed organizational skills
- Good attention to detail

During your first semester you'll learn the basics of the residential construction industry:

- Construction safety
- Construction concepts
- Blueprint reading
- Materials and fasteners
- Rough framing
- Stair systems
- Roof framing
- Roofing

The second semester of instruction builds on that background:

- Estimating (residential)
- Construction planning
- Sustainability
- Doors and windows
- Energy conservation
- Exterior finish
- Interior finish
- Cabinet installation

You'll also receive instruction in incorporating "green" technologies and materials in construction projects, and Wisconsin New Homes Program (formerly Wisconsin Energy Star) specifications. This program includes plenty of hands-on experience. Your final project will be to help construct a full-scale, high-quality home on an actual job site under the close supervision of an experienced instructor.

The construction industry fluctuates with the strength of the economy, but the employment outlook for skilled people with training is expected to be excellent. You have options!

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): August	EFFECTIVE: August 2018

RESIDENTIAL CONSTRUCTION

Technical Diploma

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
475-103	Construction Safety *[2 weeks prior to first semester]*	32/2	2	Program student
	First Semester			
475-110	Framing Methods/Building the Envelope	4	4	Program student; 475-103 or concurrent; Co-requisite 475-111, 475-112, 475-115
475-111	Framing Methods/Building the Envelope Lab	16	5	Program student; 475-103 or concurrent; Co-requisite 475-110, 475-112, 475-115
475-112	Construction Basics and Print Reading	4	2	Program student; 475-103 or concurrent; Co-requisite 475-110, 475-111, 475-115
475-115	Roof Systems and Stairs	6	3	Program student; 475-103 or concurrent; Co-requisite 475-110, 475-111, 475-112
804-134	Mathematical Reasoning	4	3	
	Total Credits		**19 cr.**	
	Second Semester			
475-120	Finish Carpentry Interior and Exterior	4	4	475-103, 475-110, 475-111, 475-112, 475-115; Co-requisite 475-121, 475-124, 475-125
475-121	Finish Carpentry Interior and Exterior Lab	16	5	475-103, 475-110, 475-111, 475-112, 475-115; Co-requisite 475-120, 475-124, 475-125
475-124	Construction Planning	4	2	475-103, 475-110, 475-111, 475-112, 475-115; Co-requisite 475-120, 475-121, 475-125
475-125	Estimating Residential Construction	6	3	475-103, 475-110, 475-111, 475-112, 475-115; Co-requisite 475-120, 475-121, 475-124
801-196	Oral/Interpersonal Communication	3	3	
	Total Credits		**17 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 36 **2.0 MINIMUM PROGRAM CUMULATIVE GPA REQUIRED FOR GRADUATION**

If a student does not enroll in any courses at CVTC for two or more consecutive semesters, the student will be required to reapply with Admissions. Students must abide by any changes in admission requirements and degree requirements.

Surgical Technologist - 31-512-1

Technical Diploma - One Year

Offered in Eau Claire • June entry date in Eau Claire

Description

If you'd like to be part of a surgical team in an operating room, the Surgical Technologist program could be for you. This career area needs professionals who are:

- Able to maintain the fast pace of the environment
- Willing and able to report for duty when on call
- Physically able to transfer patients
- Able to work standing for long periods of time
- Able to maintain confidentiality
- Able to respond quickly and accurately in times of stress

You will be a part of a surgical team before, during, and after procedures:

- Gather supplies and equipment
- Open sterile supplies
- Scrub, gown, and glove before procedures
- Organize sterile supplies and equipment
- Assist surgeon and assistant don gown and gloves
- Assist with draping the patient
- Pass instruments and assist with procedures
- Clean up or suite and transfer patients

The Surgical Technologist program includes classroom and clinical practice. Clinical sites include facilities in Eau Claire and Chippewa Falls. You are responsible for your own transportation to clinical sites.

Job opportunities are best for technologists who are certified. When you complete this program, you will be awarded a diploma as a Surgical Technologist and will take the National Board of Surgical Technology and Surgical Assisting national certification exam. Upon successful completion of this test, you can use the title Certified Surgical Technologist (CST).

This Surgical Technologist program is accredited by the Commission on Accreditation of Allied Health Education Programs, www.caahep.org, upon the recommendation of the Accreditation Review Council on Education is Surgical Technology and Surgical Assisting, www.arcstsa.org.

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): June	EFFECTIVE: June 2018

SURGICAL TECHNOLOGIST

Technical Diploma

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
	First Semester (Summer)			
501-101	Medical Terminology (T, L)	6	3	
806-177	General Anatomy & Physiology (T, L)	10	4	High School Chemistry with a "C" or better (or 836-133 or concurrent)
	Total Credits		**7 cr.**	
	Second Semester			
512-327	ST: Introduction to Surgical Technology (T, L) ***[1st 8 weeks]***	14	4	Program student, 501-101, 806-177; Co-requisite: 512-328, 512-330, 512-341
512-328	ST: Fundamentals 1 (T, L) ***[1st 8 weeks]***	14	4	Program student, 501-101, 806-177; Co-requisite: 512-327, 512-330, 512-341
512-341	ST: Surgical Procedures 1 (T) ***[2nd 8 weeks]***	7	2	Program student, 501-101, 806-177; Co-requisite: 512-327, 512-328, 512-330
512-330	ST: Clinical 1 (C) ***[2nd 8 weeks]***	15	3	Program student, 501-101, 806-177, (512-327, 512-328 or concurrent); Co-requisite: 512-341
801-356	Applied Job/Interpersonal Communication (T)	2	1	
	Total Credits		**14 cr.**	
	Third Semester			
512-329	ST: Fundamentals 2 (T, L) ***[2nd 8 weeks]***	6	2	Program student, 512-328, (512-341, 512-332 or concurrent); Co-requisite 512-334
512-342	ST: Surgical Procedures 2 (T) ***[1st 8 weeks]***	7	2	512-327, 512-328, 512-330, 512-341, (512-329, 512-332, 512-334, or concurrent)
512-332	ST: Clinical 2 (C) ***[1st 8 weeks]***	24	4	512-330, (512-329 or concurrent); Co-requisite: 512-342, 512-334
512-334	ST: Clinical 3 (C) ***[2nd 8 weeks]***	24	4	512-341, (512-332, 801-356 or concurrent)
806-301	Basic Microbiology (T, L)	4	2	Spring only
	Total Credits		**14 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 35 **A GRADE OF "C" OR BETTER IS REQUIRED IN ALL COURSES**

T = Theory/Lecture L = Lab C = Clinical

If a student does not enroll in any courses at CVTC for two or more consecutive semesters, the student will be required to reapply with Admissions. Students must abide by any changes in admission requirements and degree requirements.

Students must pass each 512 course, in sequence, within a given semester prior to starting the subsequent course(s). Unsuccessful completion of 512-327 or 512-328 will prevent a student from continuing in the program, resulting in the need to reapply to the program.

If a student does not earn a grade of C or better in 512-327 and 512-328, they will NOT be allowed to progress to the second 8 weeks of first semester core courses. The student will be required to reapply for program admission and meet any new program admission requirements.

Welding - 31-442-1

Technical Diploma - One Year

Offered in Eau Claire (Daytime) and Eau Claire (Noon - 9pm) and Eau Claire Part-time (5pm-10pm-4 semesters) • August or January entry dates in Eau Claire (Daytime)

Description

If you enjoy problem solving as well as working with your hands, the Welding program could be for you. It combines theory, demonstrations, and hands-on experiences to prepare you to take a welding project from blueprints through final inspection. The Welding program offers training in basic welding techniques you'll rely on in your career:

- Oxyacetylene welding and cutting
- Shielded metal arc welding (SMAW, stick welding)
- Gas metal arc welding (GMAW, MIG, wire-feed)
- Flux-cored arc welding (FCAW)
- Gas tungsten arc welding (GTAW, TIG)

Your training will include advanced welding techniques and credentials such as:

- Robotic welding - set-up, programming, operation, and fixturing for automatic welding
- CNC plasma cutting - using a computer program to control the cutting on an automated plasma cutter
- CNC equipment processes
- Welding certification
- OSHA 10 certification

You'll also learn plasma arc cutting, blueprint reading, layout and fabrication techniques, and metallurgy concepts.

Your job prospects are best when you're trained in the latest technologies - and that's what CVTC's Welding program has to offer you: instruction and skill development to meet the demands of today's workplace. This could be the career area you've been looking for!

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): August only - Daytime	EFFECTIVE: August 2018

WELDING

Technical Diploma

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
	First Semester			
442-310	Welding Safety and Orientation ***[2 weeks prior to start of semester-32 hrs.]***		1	Program student
442-307	Welding Print Reading	4	2	Program student
442-303	Metals Technology 1	2	1	Program student, 442-310 or concurrent
442-361	Basic Arc Welding	8	4	Program student, 442-303, 442-307, 442-310 or concurrent
442-362	Basic Wire-Feed Welding	8	4	Program student, 442-303, 442-307, 442-310 or concurrent
457-380	Layout and Fabrication 1/CNC	6	3	Program student, 442-307, 442-310, 442-380 or concurrent
442-380	Industrial Skills – Welders	4	2	Program or pre-program student
	Total Hrs./Week and Total Credits	**32**	**17 cr.**	
	Second Semester			
442-301	Welding Metallurgy	4	2	Program student, 442-303, 442-361, 442-362 or concurrent
442-304	Metals Technology 2	2	1	Program student, 442-303 or concurrent
442-360	Robotic Welding	4	2	Program student, 442-361, 442-363 or concurrent
442-363	Advanced Wire-Feed Welding	8	4	Program student, 442-310, 442-362
442-366	Advanced Arc Welding	8	4	Program student, 442-310, 442-361 or concurrent
457-381	Layout and Fabrication 2	4	2	Program student, 442-310, 457-380, 442-363, 442-366 or concurrent
	Total Hrs./Week and Total Credits	**30**	**15 cr.**	
	Third Semester (Summer)			
442-364	Gas Tungsten Arc Welding	16	4	Program student, 442-310 or concurrent
442-365	Welding Rigging/Forklift Training	8	2	Program student, or instructor approval
	Total Hrs./Week and Total Credits	**24**	**6 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 38 **2.0 MINIMUM PROGRAM CUMULATIVE GPA REQUIRED FOR GRADUATION**

This program operates on a year-round basis. Summer session attendance is required. If a student does not enroll in any courses at CVTC for two or more consecutive semesters, the student will be required to reapply with Admissions. Students must abide by any changes in admission requirements and degree requirements.

LESS THAN 1 YEAR TECHNICAL DIPLOMAS

Bookkeeper - 30-101-3

Technical Diploma - Less Than One Year

Offered in Eau Claire • August or January entry dates in Eau Claire

Description

Designed for small businesses seeking to better perform routine accounting and payroll transactions, individuals seeking employment as an entry-level bookkeeper, or individuals currently employed seeking to expand their basic accounting skills and knowledge. Participants will learn to process basic financial transactions and perform payroll operations. With this credential, learners can advance their skills to better meet the needs of small businesses to perform routine accounting tasks and reduce costs for accounting services.

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): August, January	EFFECTIVE: August 2018

BOOKKEEPER

Embedded Technical Diploma

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
	First Term			
101-111	Accounting I	5	4	
101-121	Payroll Accounting	3	3	
101-149	Intro to QuickBooks	4	2	
	Total Hrs./Week and Total Credits		**9 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 9

2.0 MINIMUM PROGRAM CUMULATIVE GPA REQUIRED FOR GRADUATION

A grade of "C" or better is required in all program (101) courses.

Central Service Technician - 30-534-1

Technical Diploma - Less Than One Year

Offered in Eau Claire • January entry date in Eau Claire

Description

The Central Service Technician program could be for you if you are:

- Interested in a career in the healthcare field
- Seeking a short-term educational program
- Able to work as part of a team
- Well-organized, with an eye for detail
- Able to work accurately
- Have a high degree of manual dexterity

As a Central Service Technician, you would:

- Maintain an uninterrupted supply of instrumentation and supplies used in patient care
- Support patient care services and be especially involved in the prevention of infection
- Clean, sterilize and process patient products, including surgical instruments, power equipment, robotic instruments, fiber optic scopes, cameras, and other specialty instrumentation
- Maintain records associated with supply orders, charges, and inventory

Your program will include central service technician skill courses, clinical assignments, and general education courses. Graduates receive a technical diploma and are eligible to write the certification exam offered by the International Association of Central Service Materials Management organization. After successfully completing your exam, you will be awarded the title of Certified Registered Central Service Technician. With an additional 200 hours working with instrumentation, you will be eligible to write the Instrument Specialist exam. Upon successful completion of this exam you will earn the title of Certified Instrument Specialist through IAHCSMM.

Central Service is an emerging occupation and will expand as health care becomes more specialized. This could be the program you need for a rewarding career!

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): January	EFFECTIVE: January 2019

CENTRAL SERVICE TECHNICIAN

Technical Diploma

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
	First Semester			
501-107	Digital Literacy Healthcare	2	2	Program student
534-300	Fundamentals of Central Service Technician (T, L) ***[1st 8 weeks]***	6	3	Program student
534-302	Central Service Technician Clinical (C) ***[2nd 8 weeks]***	24	1	Program student, 534-300 or concurrent
	Total Credits		**6 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED =6 A GRADE OF "C" OR BETTER IS REQUIRED IN ALL COURSES

If a student does not enroll in any courses at CVTC for two or more consecutive semesters, the student will be required to reapply with Admissions. Students must abide by any changes in admission requirements and degree requirements.

If a student does not earn a grade of C or better in 534-300, they will NOT be allowed to progress to 534-302 for their clinical course.

T = Theory/Lecture L = Lab C = Clinical

Criminal Justice Law Enforcement 720 Academy - 30-504-2

Technical Diploma - Less Than One Year

Offered in Eau Claire • August, January, or May entry dates in Eau Claire

Description

The Criminal Justice-Law Enforcement 720 Academy is designed for potential law enforcement officers who need or want to meet Wisconsin certification requirements.

You may be considered for admission to the Academy if you meet one of the following criteria:

- Are a full-time or part-time law enforcement officer
- Have graduated from CVTC's Criminal Justice Associate Degree program
- Have earned at least 60 college credits or the equivalent

The 720-hour training program is competency-based and meets the criteria set by the Wisconsin Law Enforcement Standards Board (LESB). Training is delivered through lecture, multimedia presentations, interactive group discussion, hands-on instruction, and field exercises. All classes are conducted at CVTC's Criminal Justice Division in Eau Claire, Wisconsin.

Full-time students are expected to participate from 8 a.m. to 5 p.m. Monday through Friday and be available for scheduled evening and weekend instruction designed to simulate actual conditions. Some training will take place outdoors.

This is a challenging program designed to help you take your law enforcement career to the next level.

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): August, January, or May	EFFECTIVE: August 2018

CRIMINAL JUSTICE LAW ENFORCEMENT 720 ACADEMY

Technical Diploma

Course Number	Course Title	Credits	Prerequisite(s)/Comments
	First Semester		
504-700	Physical Fitness	1	Program student
504-701	Overview of Criminal Justice	1	Program student
504-702	Overview of Patrol Response	2	Program student
504-703	Overview of Tactics	1	Program student
504-704	Overview of Investigations	2	Program student
504-706	Principles of Tactics	3	Program student
504-707	Principles of Emergency Vehicle Response	2	Program student
504-708	Principles of Investigations	2	Program student
504-709	Applications of Traffic Response	2	Program student
504-710	Applications of Investigation	2	Program student
504-714	Sensitive Crimes	2	Program student
504-182	Scenario Assessment	1	Program student, 504-700, 504-701, 504-702, 504-703, 504-704, 504-706, 504-707, 504-708, 504-709, 504-710, 504-711, 504-712, 504-713 or concurrent
	Total Credits	**21 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 21 **2.0 MINIMUM PROGRAM CUMULATIVE GPA REQUIRED FOR GRADUATION**

Dental Assistant - 30-508-2

Technical Diploma - Less Than One Year

Offered in Eau Claire • August or January entry dates in Eau Claire

Description

Self-directed, motivated, able to anticipate the needs of others, detail oriented, good dexterity, able to work as part of a team, interested in helping people: if that sounds like you, the Dental Assistant program could be what you're looking for.

This program is a combination of theory and hands-on experiences. You'll gain the knowledge and skills you'll need to:

- Assist the dentist in dental procedures
- Sterilize and prepare instruments
- Take impressions; prepare models and lab work
- Assist with general office procedures
- Learn radiographic (xray) techniques using digital sensors as well as analog or traditional film-based xrays
- Maintain and update dental charts

After two years' on-the-job experience, you will be eligible to apply for the certification examination of the Dental Assistant National Board.

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): August, January	EFFECTIVE: August 2018

DENTAL ASSISTANT

Technical Diploma

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
	First Term			
508-101	Dental Health Safety (L) (32 hours) ***Internet and on-campus lab***		1	Program student; *Must be completed prior to program start (see tip sheet, computer skills are strongly recommended)*
508-302	Dental Chairside (T, L)	10	5	Program student, 508-101 or concurrent, Co-requisites: 508-303, 508-304, 508-305, 508-306, 508-307
508-303	Dental Materials (T, L)	4	2	Program student, 508-101 or concurrent Co-requisites: 508-302, 508-304, 508-305, 508-306, 508-307
508-304	Dental and General Anatomy (T)	3	2	Program student, 508-101 or concurrent, Co-requisites: 508-302, 508-303, 508-305, 508-306, 508-307
508-305	Applied Dental Radiography (L)	4	2	Program student, 508-101 or concurrent, Co-requisites: 508-302, 508-303, 508-304, 508-306, 508-307
508-306	Dental Assistant Clinical (C) ***[2nd 8 weeks]***	10	3	Program student, 508-101 or concurrent, Co-requisites: 508-302, 508-303, 508-304, 508-305, 508-307
508-307	Dental Assistant Professional (T)	2	1	Program student, 508-101 or concurrent, Co-requisites: 508-302, 508-303, 508-304, 508-305, 508-306
	Total Credits		**16 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 16 **A GRADE OF "C" OR BETTER IS REQUIRED IN ALL COURSES**

T = Theory/Lecture L = Lab C = Clinical

Students must enroll in **ALL 16 CREDITS** of Dental Assistant courses in one semester. Students completing less than all the courses must reapply to the program as a new student.

Design and Drafting Technology - 30-606-3

Technical Diploma - Less Than One Year

Offered in Eau Claire and River Falls • August entry date in Eau Claire, August entry date in River Falls

Description

Industry-standard AutoCAD and SolidWorks software are used to develop detailed design drawings and specifications for mechanical equipment, dies, and tools using CAD equipment. Print reading visualization, sketching, and design document structuring are addressed. Two- and three-dimensional drawings, isometric drawings, and assemblies will be created and a student portfolio developed. Geometric dimensioning and tolerancing principles are applied to mechanical part designs using current ASME Y 14.5 standards.

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): August	EFFECTIVE: August 2018

DESIGN AND DRAFTING TECHNOLOGY

Embedded Technical Diploma

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
	First Semester			
606-103	Mechanical Design Concepts	4	2	
606-160	Manufacturing Materials and Processes	3	3	Program student
606-130	Solid Modeling 1	5	3	
	Total Hrs./Week and Total Credits		**8 cr.**	
	Second Semester			
606-104	Geometric Dimension and Tolerancing	2	1	
606-161	Basic CAD	4	3	
606-131	Solid Modeling 2	5	3	606-130
623-111	Measurement for Engineering	4	2	
	Total Hrs./Week and Total Credits		**9 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 17 **2.0 MINIMUM PROGRAM CUMULATIVE GPA REQUIRED FOR GRADUATION**

Electrical Maintenance - 30-462-1

Technical Diploma - Less Than One Year

Offered in Eau Claire • June, August, or January entry dates in Eau Claire

Description

This program will allow you to develop skills in electrical related maintenance concepts that will help you be successful at an entry level in an organization. Students will work with programming logic controllers, industrial electricity principles, automated equipment and entry-level computer applications.

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): June, August, October, January, or March	EFFECTIVE: June 2018

ELECTRICAL MAINTENANCE

Embedded Technical Diploma

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
	First Term			
462-118	Industrial Electricity Principles	6	3	Program student or instructor approval
462-121	IOT Automated Manufacturing	8	4	Program student, 462-118 or concurrent, or instructor approval
462-123	PLC Manufacturing Applications	6	3	Program student, 462-121 or concurrent, or instructor approval
	Total Credits		**10 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 10 **2.0 MINIMUM PROGRAM CUMULATIVE GPA REQUIRED FOR GRADUATION**

If a student does not enroll in any courses at CVTC for two or more consecutive semesters, the student will be required to reapply with Admissions. Students must abide by any changes in admission requirements and degree requirements.

Emergency Medical Technician - 30-531-3

Technical Diploma - Less Than One Year

Offered in Eau Claire and River Falls • June, August or January entry dates in Eau Claire and River Falls

Description

This course prepares students for all aspects of emergency medical care, both medical and trauma situations, sanctioned by the Wisconsin Division of Health, at the basic level. Following the most current Wisconsin Revision of the National Standard Curriculum, this course includes didactic and practical skill information in the following areas: legal aspects, anatomy and physiology, patient assessment, critical thinking skills, airway adjuncts, fractures and dislocations, spinal injuries, soft tissue wounds, pharmacology, stroke, cardiac, diabetic, respiratory, altered mental status, pediatric, geriatric, ambulance operations, and triage. A student should be prepared to obtain 100 percent proficiency in all areas through punctuality, attendance, completion of assignments, class participation, and full cooperation with the instructor.

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): June, August, or January	EFFECTIVE: June 2018

EMERGENCY MEDICAL TECHNICIAN (EMT)

Technical Diploma

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
	First Semester			
531-110	Emergency Medical Technician	10	5	531-454
	Total Hrs./Week and Total Credits	**160 hrs.**	**5 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 3 **2.0 MINIMUM PROGRAM CUMULATIVE GPA REQUIRED FOR GRADUATION**

**A grade of "C" or better is required in the course to graduate with an Emergency Medical Technician (EMT) Technical Diploma (30-531-3).*

Farm Business & Production Management - 30-090-1

Technical Diploma - Six years, Part Time

Offered in various locations throughout the district • Fall entry date

Description

The Farm Business & Production Management program is designed to further your education in production agriculture, whether you are just entering this career area or have years of experience:

- Farmers
- Farm family members
- Farm employees
- Ag professionals
- FSA borrowers
- Bankers and lenders
- Non-traditional farmers

Day and evening courses are offered to provide you with practical information you can use immediately:

- Farm Business Production Management - Six courses offered; topics include crop production, land use management, livestock production, financial and business planning, and livestock health and biosecurity
- Cash Grain Production - Three courses offered in a three-year rotation; topics include agronomy cultural practices, facilities and equipment management, and marketing and financial management

In addition to classroom experiences, you'll receive individualized instruction:

- Implementing technologies, including computer assistance
- Farm business analysis, financial planning, and record keeping assistance
- Livestock and crop production practices

The Farm Business & Production Management program can help you make the most of your resources part-time, while you continue with your usual career responsibilities.

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): August	EFFECTIVE: August 2018

FARM BUSINESS & PRODUCTION MANAGEMENT

Technical Diploma

*This program is offered in various locations throughout the district and can be started in the fall.

Course Number	Course Title	Credits	Prerequisite(s)/Comments
	First Term		
090-310	Farm Business Planning & Risk Management	4	Program student
090-320	Land Use Management	4	Program student
090-330	Precision Agronomics & Energy Management	4	Program student
090-340	Livestock Nutrition & Reproduction	4	Program student
090-350	Farm Business Analysis & Marketing Strategy	4	Program student
090-360	Livestock Facility, Health & Biosecurity	4	Program student
	Total Credits	**24 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 24 **2.0 MINIMUM PROGRAM CUMULATIVE GPA REQUIRED FOR GRADUATION**

IT - Software Development Specialist - 30-152-5

Technical Diploma - Less Than One Year

Offered in Eau Claire and Eau Claire • August or January entry dates in Eau Claire

Description

The IT - Software Development Specialist credential prepares individuals to provide technical assistance in resolving software based computer problems in today's digital office environments. This certificate takes one semester to complete.

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): August, January	EFFECTIVE: August 2018

IT – SOFTWARE DEVELOPMENT SPECIALIST

Embedded Technical Diploma

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
	First Term			
152-107	Web 1 – HTML & CSS ***[1st 8 weeks]***	8	3	Program student
152-101	Programming Fundamentals ***[2nd 8 weeks]***	8	3	Program student
152-132	Database 1 ***[2nd 8 weeks]***	8	3	Program student
	Total Credits		**9 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 9 **2.0 MINIMUM PROGRAM CUMULATIVE GPA REQUIRED FOR GRADUATION**

If a student does not enroll in any courses at CVTC for two or more consecutive semesters, the student will be required to reapply with Admissions. Students must abide by any changes in admission requirements and degree requirements.

A grade of "C-" or better is required in all courses.

Manufacturing Quality - 30-623-4

Technical Diploma - Less Than One Year

Offered in Eau Claire • August entry date in Eau Claire

Description

This embedded technical diploma provides technical skills in quality fundamentals, lean fundamentals, print specifications, quality standards, and coordinate measurement inspection tools. It provides developmental knowledge for a manufacturing technician to evaluate hardware documentation, perform laboratory procedures, inspect products, measure process performance, record data, and prepare formal reports. The learner will apply common quality and lean tools, examine tool applications, and be able to participate in quality improvement projects.

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): August	EFFECTIVE: August 2018

MANUFACTURING QUALITY

Embedded Technical Diploma

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
	First Term			
606-104	Geometric Dimension & Tolerancing	2	1	
623-111	Measurement for Engineering	4	2	
623-130	Lean Fundamentals	2	2	
804-115	College Technical Math 1	5	5	
804-189	Introductory Statistics	4	3	
625-110	Manufacturing & Quality Assurance	3	3	804-189
	Total Hrs./Week and Total Credits		**16 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 16

2.0 MINIMUM PROGRAM CUMULATIVE GPA REQUIRED FOR GRADUATION

Mechanical Maintenance - 30-462-2

Technical Diploma - Less Than One Year

Offered in Eau Claire • June, August, or January entry dates in Eau Claire

Description

This program will allow you to develop skills in mechanical related maintenance concepts that will help you to be successful at an entry level in an organization. Students will work with hydraulics, pneumatics, mechanical gears and linkages, print reading and entry-level computer applications.

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): June, August, October, January, and March	EFFECTIVE: June 2018

MECHANICAL MAINTENANCE

Embedded Technical Diploma

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
	First Term			
419-116	Basic Hydraulics	4	2	Program student or instructor approval
419-117	Basic Pneumatics	4	2	Program student or instructor approval
442-120	Related Welding- Industrial Mechanic **OR**	4	2	Program student or instructor approval
106-114	Customer Communication Techniques **AND**	4	1	
106-115	Customer Care Strategies	4	1	
462-111	Mechanical Concepts	4	2	Program student or instructor approval
462-115	Industrial PC Network Concepts	4	2	Program student or instructor approval
462-119	Industrial Mechanical Skills	4	2	Program student or instructor approval
462-130	Manufacturing Prints & Networks	2	1	Program student or instructor approval
625-180	Manufacturing Skills Standards	2	2	
	Total Credits		**15 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 15 **2.0 MINIMUM PROGRAM CUMULATIVE GPA REQUIRED FOR GRADUATION**

If a student does not enroll in any courses at CVTC for two or more consecutive semesters, the student will be required to reapply with Admissions. Students must abide by any changes in admission requirements and degree requirements.

Nail Technician - 30-502-4

Technical Diploma - Less Than One Year

Offered in Eau Claire • January entry date in Eau Claire

Description

Chippewa Valley Technical College's Nail Technician program prepares students for a field in nails by teaching methods that apply salon sciences with artistic talents for creative nail results. Students will gain a complete understanding of salon operations - from marketing and retailing to communication skills. This career provides excellent opportunities for full-time and part-time employment and attracts creative people of all ages. The income potential is unlimited.

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): January	EFFECTIVE: January 2019

NAIL TECHNICIAN

Technical Diploma

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
	First Term			***Grade of "C" or better for all prerequisites***
502-320	Nail Technology ***[January-March]***	8	2	Program student; Co-requisite: 806-323
806-323	Salon Science 1 ***[January-March]***	4	1	Program student; Co-requisite: 502-320
502-331	Advanced Nail Technology ***[March-May]***	8	2	502-320 or concurrent
502-332	Nail Salon Services ***[March-May]***	16	4	502-331, 806-323 or concurrent
	Total Hrs./Week and Total Credits	**12-24 hrs.**	**9 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 9 **2.0 MINIMUM PROGRAM CUMULATIVE GPA REQUIRED FOR GRADUATION**

A grade of "C" or better is required in all courses.

Nursing Assistant - 30-543-1

Technical Diploma - Less Than One Year

Offered in Eau Claire and River Falls • June, August, or January entry dates in Eau Claire and River Falls

Description

If you're seeking a comparatively short educational program that leads to a career in the health care field, consider the Nursing Assistant program. This program may be a good match for you if you:

- Are kind and compassionate
- Have good communication skills
- Can work as a team member
- Are efficient, accurate, and detail oriented
- Can maintain high professional standards

As a nursing assistant, you would provide care to a variety of patients to help them live as comfortably and independently as possible. This program will help you learn basic nursing skills.

- Collect data
- Safeguard patients
- Assist in all activities of daily living
- Communicate with patients

The course requires 120 hours of lecture, laboratory, and clinical work. You'll need to have access to a computer with an Internet hookup. This could be in your home, at a nearby library, at one of the CVTC branch campuses, or another location that is convenient for you. You'll also work in a laboratory setting on simulated laboratory experiences. During the final portion of your program, you'll work in nursing homes or hospitals and gain actual experience with residents or patients.

When you successfully complete the program, you will be eligible to apply for the National Nurse Aide Assessment Program (NNAAP) Examination. You will need to be certified before you can work in this career area. The demand for certified nursing assistants is expected to increase, especially in nursing homes, community-based residential facilities, and through home health care organizations.

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): June, August, January	EFFECTIVE: June 2018

NURSING ASSISTANT

Technical Diploma

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
	First Semester			
543-300	Nursing Assistant	8	3	
	Total Hrs./Week and Total Credits	**120 hrs.**	**3 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 3 **2.0 MINIMUM PROGRAM CUMULATIVE GPA REQUIRED FOR GRADUATION**

Office Receptionist - 30-106-3

Technical Diploma - Less Than One Year

Offered in Eau Claire • August entry date in Eau Claire

Description

The Receptionist embedded technical diploma (one-semester) program prepares students with basic receptionist skills necessary in today's business office. Those working in this career may be expected to answer the telephone, greet customers, work with basic office equipment, and assist with various administrative support tasks. Students will learn how to interact with customers, perform various office procedures, and utilize computer skills.

After successful completion of the Receptionist embedded technical diploma program, the student has the opportunity to apply these credits to the Office Assistant embedded technical diploma 1-year program.

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): August	EFFECTIVE: August 2018

OFFICE RECEPTIONIST

Embedded Technical Diploma

Course Number	Course Title	Weeks	Hrs./ Week	Credits	Prerequisite(s)/Comments
	First Term				
103-102	Microsoft Office Suite	1-8	4	2	Fall only
106-150	Office Procedures 1 **OR**	1-4	4	1	Fall only
509-130	Medical Office Procedures	9-16	6	2	Program student
106-113	Customer Service Foundations	5-8	4	1	Fall only
106-152	Job Search-Business Support Professional 1	9-12	4	1	Fall only
106-114	Customer Communication Techniques	9-12	4	1	Fall only
106-115	Customer Care Strategies	13-16	4	1	Fall only
106-172	Microsoft Outlook	13-16	4	1	Fall only
101-105	Accounting, Intro to **OR**		3	3	
106-162	Legal Terminology **OR**		3		Fall only
501-101	Medical Terminology		3		
809-198	Intro to Psychology **OR**		3	3	
809-199	Psychology of Human Relations				
	Total Hrs./Week and Total Credits		**14-20 hrs.**	**14-15 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 14 **2.0 MINIMUM PROGRAM CUMULATIVE GPA REQUIRED FOR GRADUATION**

If a student does not enroll in any courses at CVTC for two or more consecutive semesters, the student will be required to reapply with Admissions. Students must abide by any changes in admission requirements and degree requirements.

Paralegal Post-Baccalaureate (Paralegal Studies) - 30-110-2

Technical Diploma - Less Than One Year

Offered in Eau Claire • August entry date in Eau Claire

Description

The Paralegal Post-baccalaureate program prepares students for highly responsible entry-level positions as paralegals or legal assistants. Students take courses that provide them with the basic competencies to begin a career as a paralegal or legal assistant. The Paralegal Post-baccalaureate Diploma is appropriate for those persons who already have earned a bachelor's degree. Students who have not earned a bachelor's degree should apply to the Paralegal Associate Degree Program.

A paralegal or legal assistant is a person qualified by education, training, or work experience who is employed or retained by a lawyer, law office, corporation, governmental agency or other entity to perform specifically-designated substantive legal work for which a lawyer is responsible. Paralegals may not provide legal services to the public, except as permitted by law.

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): August	EFFECTIVE: August 2018

PARALEGAL POST-BACCALAUREATE (PARALEGAL STUDIES)

Embedded Technical Diploma

Course Number	Course Title	Credits	Prerequisite(s)/Comments
	First Semester		
110-101	Introduction to Paralegal & Legal Ethics	3	
110-102	Civil Litigation I	3	Fall only
110-104	Legal Research	3	Fall only
	Choose 3 credits from the following:		
110-114	Administration of Estates **OR**	3	Fall only, 110-103
110-168	Criminal Law-Paralegal		Fall only, 110-103
	Total Credits	**12 cr.**	
	Second Semester		
110-103	Civil Litigation II	3	Spring only, 110-102, 110-104, (801-136 or 801-219, or BA or BS)
110-105	Legal Writing	3	Spring only, 110-102, 110-104, (801-136 or 801-219, or BA or BS)
	Choose 3 credits from the following:		
110-107	Legal Aspects of Business Orgs **OR**	3	Spring only, 110-103 or concurrent
110-106	Family Law		Spring only, 110-102, 110-104, (801-136 or 801-219, or BA or BS)
	Choose 3 credits from the following:		
110-142	Paralegal Internship (144 hours off campus work exp.) **OR**	3	110-101, (110-114 or 110-168), (110-103, 110-105 or concurrent)
110-143	Paralegal Field Study (144 hours independent study)		110-101, (110-114 or 110-168), (110-103, 110-105 or concurrent)
	Total Credits	**12cr.**	

TOTAL CREDITS REQUIRED = 24 **2.0 Minimum Program GPA Required for Completion.**

Classes are restricted to the Paralegal Program & Paralegal Post-Baccalaureate Embedded Technical Diploma.

A grade of "C" or better is necessary to meet prerequisite requirements.

Renewable Energy - 30-401-3

Technical Diploma - Less Than One Year

Offered in Eau Claire • August or January entry dates in Eau Claire

Description

This embedded technical diploma prepares students with skills necessary for basic geothermal, solar photovoltaic, solar thermal, and wind services. After successful completion, students have the opportunity to apply these credits to the Air Conditioning, Heating, Refrigeration and Renewable Technology 1-year technical diploma and the 2-year associate degree.

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): August, January	EFFECTIVE: August 2018

RENEWABLE ENERGY

Technical Diploma

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
	First Term			
601-125	Safety – HVAC	2	1	Program student
601-106	Refrigeration Theory	2	1	
601-107	Heating Theory	2	1	
601-118	Sustainability for HVAC	2	1	
601-140	Electricity Theory	2	1	
601-148	Electricity Principles	4	2	601-140 or concurrent
601-144	Solar/Wind Applications	4	2	
601-145	Geothermal Applications	2	1	
601-146	Schematic Wiring-HVACR	2	1	601-140, 601-148
601-147	Schematic Wiring-Troubleshooting	2	1	601-140, 601-146, 601-148 or concurrent
801-196	Oral/Interpersonal Communication	3	3	
804-134	Mathematical Reasoning	4	3	
	Total Hrs./Week and Total Credits	**31 hrs.**	**18 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 18 **2.0 MINIMUM PROGRAM CUMULATIVE GPA REQUIRED FOR GRADUATION**

Truck Driving - 30-458-1

Technical Diploma - Less Than One Year

Offered in Eau Claire • June, August, or January entry dates in Eau Claire

Description

*This program is partially eligible for student loans.

The trucking industry needs trained professionals with the skills and personal characteristics to get the job done:

- Independent, but able to follow regulations
- Excellent driving skills
- Responsible; concerned for safety
- Able to follow directions

If that's how you'd describe yourself, the Truck Driving program could be the training you've been looking for. Your course will provide you with the knowledge you need to begin your truck driving career:

- Federal and state regulations
- How to maintain the driver's logbook
- Safe operating procedures
- Loading and securing loads
- Engines, transmissions, and differentials
- Map-reading
- Handling related tools and equipment
- Bills of lading, hazardous materials

Through hands-on, simulation, and on-line instructional experiences, you'll receive training patterned after the day-to-day demands of this career:

- Shifting 9-, 10-, and 13-speed transmissions
- Conducting the pre-trip inspection
- Coupling and uncoupling
- Backing maneuvers
- Operating tractors and 48-/53-foot trailers

You may also gain training to give you a competitive edge in your career, including a Class "A" Commercial Driver's License with air brakes: hazardous materials and advanced training in off-road recovery, evasive maneuvers, controlled braking, and skid control.

This program will be a combination of traditional classroom, lab and online computer-based learning. The first 2 days of instruction will be delivered in a face-to-face computer lab. The remaining lecture portion of the courses will be delivered online, facilitated by your instructor.

This program could be what you need to begin a rewarding career!

Chippewa Valley Technical College

PROGRAM REQUIREMENTS

www.cvtc.edu - 1-800-547-2882

START DATE(S): June, August, or January	EFFECTIVE: June 2018

TRUCK DRIVING

Technical Diploma

Full-time Daytime program is 10 weeks in length

Course Number	Course Title	Hours/ Week	Credits	Prerequisite(s)/Comments
458-341	Truck Driving 1 (T, L)	-	4	Program student, Co-requisite: 458-342, 458-343, 458-344, age 18
458-342	Truck Driving 2 (T, L)	-	3	Program student, Co-requisite: 458-341, 458-343, 458-344, age 18
458-343	Truck Driving 3 (T, L)	-	3	Program student, Co-requisite: 458-341, 458-342, 458-344, age 18
458-344	Truck Driving 4 (T, L)	-	2	Program student, Co-requisite: 458-341, 458-342, 458-343, age 18
	Total	**40 hrs.**	**12 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED =12 **2.0 MINIMUM PROGRAM CUMULATIVE GPA REQUIRED FOR GRADUATION**

If a student does not enroll in any courses at CVTC for two or more consecutive semesters, the student will be required to reapply with Admissions. Students must abide by any changes in admission requirements and degree requirements.

Program Admission Requirements

In addition to the general admission requirements listed in the college catalog, the following requirement(s) must be met for this program:

- Applicants without a high school diploma or GED/HSED must take the COMPASS Reading assessment and score a minimum of 62
- Age 18 or older
- Verification of valid driver's license **(DRIVING HISTORY/CRIMINAL HISTORY AFFECTS EMPLOYMENT OPPORTUNITIES)**

Additional Program Requirements Prior to Operating School Vehicles

- Current DOT physical
- Negative DOT Drug Screen
- Must have CDL – Class A Instruction Permit

For application packet contact CVTC Admissions Office, 1-800-547-2882 or 715-833-6246.

CERTIFICATES

Advanced Machining - Swiss - TC-420-1

Technical Certificate

Description

This (9 credit) certificate will provide the student instruction on the fundamentals of Swiss style CNC machines including; basic history, terms and definitions, basic Swiss machine operation, part processing, manual and computer supported part programming, as well as CAD/CAM programming with simulation and program analysis. Swiss style machining is a unique type of turning center in which a sliding head stock pushes material through a guide bushing and past stationary tools to create very accurate complex shapes and is very adequate for machining parts at the micro level. Live rotary cross tools create secondary features, such as holes or slots, and other geometries that would normally require multiple machines and setups. Multiple spindled machine tools, such as Swiss style machining centers, enable parts to be completely machined in one setup. Medical devices, electronic devices, and aerospace components are a great fit for this type of technology. These machine tools regularly apply exotic materials such as titanium, nickel, stainless steel alloys. This highly specialized advanced machine training will benefit individuals who are highly motivated thinkers who have the desire to explore the Swiss machining market as an employer or employee.

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
420-382	Swiss 1	6	3	Certificate student, 420-326, 420-331, 420-367
420-383	Swiss 2	6	3	Certificate student, 420-382
420-381	CAD/CAM for Swiss	6	3	Certificate student, 420-382, 420-383
	Total Credits		**9 cr.**	

TOTAL CREDITS REQUIRED = 9

2.0 Minimum Certificate GPA Required for Completion

Air Conditioning - 61-601-1

Pathways Certificate

Description

This entry level certificate prepares students with skills necessary for basic air conditioning and cooling services. This certificate prepares students to take the Environmental Protection Agency (EPA) 608 certification exam for refrigerant recovery, recycling and reclamation. After successful completion, students have the opportunity to apply these credits to the Air Conditioning, Heating, Refrigeration and Renewable Technology 1-year technical diploma and the 2-year associate degree.

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
	First Term			
601-125	Safety – HVAC ***[1st 8 weeks]***	2	1	Program student
601-140	Electricity Theory ***[1st 8 weeks]***	2	1	
601-148	Electricity Principles ***[2nd 8 weeks]***	4	2	601-140 or concurrent
601-106	Refrigeration Theory ***[3rd 8 weeks]***	2	1	
601-146	Schematic Wiring-HVACR ***[3rd 8 weeks]***	2	1	601-140, 601-148
601-116	Principles of Air Conditioning ***[4th 8 weeks]***	4	2	601-106, 601-140, 601-148 or concurrent
	Total Hrs./Week and Total Credits	**16 hrs.**	**8 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 8 **2.0 MINIMUM PROGRAM CUMULATIVE GPA REQUIRED FOR GRADUATION**

*In order to complete this certificate in shortest timeframe, courses must be completed in sequence above.

Basic Cooking Skills - 61-316-4

Pathways Certificate

Description

This certificate focuses on the general study of cooking and related culinary arts that will prepare individuals for a variety of jobs within the food service industry. Coursework includes instruction in food preparation, cooking techniques, equipment operation and maintenance, sanitation and safety, communication skills, applicable regulations, and principles of food service management.

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
	First Semester			
316-101	Food Theory	3	3	Program student
316-102	Introduction to Culinary	10	5	Program student
316-105	Food Safety & Sanitation	2	2	Program student
316-107	Beverage Management	2	2	Program student
804-134	Mathematical Reasoning	4	3	
	Total Hrs./Week and Total Credits	**21 hrs.**	**15 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 15 **2.0 MINIMUM PROGRAM CUMULATIVE GPA REQUIRED FOR GRADUATION**

Cisco Networking Academy - TC-150-1

Technical Certificate

Description

Cisco Systems, the worldwide leader in networking for the Internet, is a partner with CVTC. This training program is designed to teach people to design, build, and maintain computer networks capable of supporting national and global organizations. Participants who complete the 10 credits of specially developed curriculum and certifications testing will be ready to begin working in the Information Technology field.

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
150-150	CCNA 1: Introduction to Networks	4	3	Program/Certificate student
150-151	CCNA 2: Routing & Switching Essentials	4	3	*150-150
150-153	CCNA 3: Scaling Networks	3	2	*150-151
150-154	CCNA 4: Connecting Networks	3	2	*150-153
	Total Credits		**10 cr.**	

A minimum final grade of "C-" is required in all courses.

TOTAL CREDITS REQUIRED = 10

2.0 Minimum Certificate GPA Required for Completion

Class B - Truck Driving - TC-458-1

Technical Certificate

Description

This set of competencies is designed to prepare students for a Class B Commercial Driver's License (CDL). Certificate completers will be prepared to drive non-combination vehicles such as: short-haul delivery trucks, construction and excavating vehicles and truck used in the sand mining, concrete, or other similar industries.

Course Number	Course Title	Credits	Prerequisite(s)/Comments
458-340	Straight Truck	5	
	Total Credits	**5 cr.**	

TOTAL CREDITS REQUIRED = 5

Minimum 2.0 cumulative GPA required for successful completion of certificate.

CNC Machining Retraining - TC-420-2

Technical Certificate

Description

This 12 credit certificate is designed to provide retraining instruction for dislocated machinists or provide update training for current machinists needing experience with CNC (Computer Numerical Control) machine operations and CAM (Computer Aided Machining) skills with milling and turning. This certificate covers instruction for basic operation, set-up, processes, and programming of CNC mills and lathes. This certificate will provide the student with basic knowledge of 2-D Master Cam software in support of CNC machining. The certificate is designed to be completed in one semester.

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
420-325A	Basic CNC Mill Programming	10	5	Certificate student
420-380A	2-D CAM	4	2	Certificate student, 420-325A or concurrent
420-330A	Basic CNC Lathe Programming	10	5	Certificate student, 420-325A or concurrent
	Total Credits		**12 cr.**	

TOTAL CREDITS REQUIRED = 12 **2.0 Minimum Certificate GPA Required for Completion**

Critical Care Transport - TC-531-2

Technical Certificate

Description

The Critical Care Transport certificate is designed to prepare licensed healthcare professionals to function as critical care transport team members. Critically ill or injured patients requiring transport between facilities need a different level of care from hospital or emergency field patients. This certificate provides students with knowledge of the special assessment techniques and needs of the critical care patient, the ability to operate and troubleshoot critical care transport equipment, and develops the skills necessary to maintain the stability of the critical care patient during transport.

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
531-315	Critical Care Transport	6	3	Department Approval
	Total Credits		**3 cr.**	

TOTAL CREDITS REQUIRED = 3 **2.0 Minimum Certificate GPA Required for Completion**

Customer Service Representative - TC-106-6

Technical Certificate

Description

This certificate is designed for people who want to enhance or update their skills in the software and customer service arena. The student may elect an emphasis in medical, legal, or general business. Most of the classes in this certificate are available in an open-lab or online format.

Course Number	Course Title	Credits	Prerequisite(s)/Comments
103-102	Microsoft Office Suite	2	Fall only
106-113	Customer Service Foundations	1	Fall only
106-114	Customer Communication Techniques	1	Fall only
106-115	Customer Care Strategies	1	Fall only
106-150	Office Procedures 1	1	Fall only
106-128	Business Words at Work 1	1	Spring only, 103-102
106-129	Business Words at Work 2	1	Spring only, 106-128 or concurrent
106-130	Business Words at Work 3	1	Spring only, 106-129 or concurrent
	Total Credits	**9 cr.**	

TOTAL CREDITS REQUIRED = 9 **2.0 Minimum Certificate GPA Required for Completion**

Digital Marketing Technologies - TC-104-8

Technical Certificate

Description

This certificate will aid in the development of marketing technology skills such as Adobe products, including Photoshop, Illustrator, InDesign, Premiere Pro, and Dreamweaver. Digital devices, video, and audio equipment are used to practice hands-on application in creating visual designs, audio files, video files, and web coding.

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
104-112	Visual Design	4	4	
104-164	Digital Video and Audio	4	4	104-112 or concurrent
104-148	Digital Design Web Building	3	3	104-112 or concurrent
	Total Credits		**11 cr.**	

TOTAL CREDITS REQUIRED = 11 **Minimum 2.0 cumulative GPA required for successful completion of certificate.**

Editing and Proofreading - TC-699-3

Technical Certificate

Description

This certificate prepares individuals to communicate for informative and persuasive purposes using a variety of electronic platforms.

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
699-105	Document Design	3	3	801-136 or concurrent
699-115	Editing and Proofreading	3	3	801-136
699-135	Writing and Publishing	3	3	801-136
	Total Credits		**9 cr.**	

TOTAL CREDITS REQUIRED = 9 **Minimum 2.0 cumulative GPA required for successful completion of certificate.**

Electronics - TC-620-2

Technical Certificate

Description

This certificate will give individuals a solid foundation in electronics. It will also expose students to basic industrial electricity. It is designed for the beginner that that wants to learn about electronics and electricity as well as someone who is currently working with electronics, but needs to refresh or enhance their abilities.

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
605-107	Basic Electronics	5	3	
605-108	Devices and Digital	5	3	620-107
620-155	Industrial Electronics 1	3	2	
	Total Credits		**8 cr.**	

TOTAL CREDITS REQUIRED = 8 **2.0 Minimum Certificate GPA Required for Completion**

Event Marketing - TC-104-5

Technical Certificate

Description

This certificate will help you develop an understanding of marketing concepts and theories that apply to sports and entertainment events. The areas this certificate will cover include target marketing and segmentation, sponsorships, event marketing, promotions, sponsorship proposals, and implementation of sports marketing plans. Students will also look into promotional plans, sponsorship proposals, sports marketing plans, event evaluation and management techniques.

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
104-102	Marketing Principles	3	3	
104-104	Sales Presentations	3	3	
104-125	Advertising	3	3	104-102
104-160	Event Planning & Marketing	3	3	Fall only
	Total Credits		**12 cr.**	

TOTAL CREDITS REQUIRED = 12 **2.0 Minimum Certificate GPA Required for Completion**

Fluid Power Maintenance - TC-462-1

Technical Certificate

Description

Hydraulic and Pneumatic devices do the heavy lifting and movement of automation and industrial work. Understanding the principles of these technologies are essential to maintenance. Students advance from basics to advanced devices in these technologies. Applying learning, developing communication skills, and team skills. Topics of pressure, flow, horsepower, speed, directional control valves, sequence and pressure relief as well as pilot operated checks, accumulators, and common applications. Identifying failures, fittings, and correct parts and applying theory in industrial settings.

Course Number	Course Title	Credits	Prerequisite(s)/Comments
419-116	Basic Hydraulics	2	Certificate student
419-102	Hydraulic System Operations	2	Certificate student, 419-116 or instructor approval
419-117	Basic Pneumatics	2	Certificate student
419-118	Pneumatic System Operations	2	Certificate student, 419-117 or instructor approval
625-180	Manufacturing Skills Standards	2	
	Total Credits	**10 cr.**	

TOTAL CREDITS REQUIRED = 10 **2.0 Minimum Certificate GPA Required for Completion**

Gas Heating & Airflow - 61-601-2

Pathways Certificate

Description

This entry level certificate prepares students with basic gas heating and air flow skills. After successful completion, students have the opportunity to apply these credits to the Air Conditioning, Heating, Refrigeration and Renewable Technology 1-year technical diploma and the 2-year associate degree.

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
	First Term			
601-125	Safety – HVAC ***[1st 8 weeks]***	4	1	Program student
601-140	Electricity Theory ***[1st 8 weeks]***	4	1	
601-148	Electricity Principles ***[2nd 8 weeks]***	8	2	601-140 or concurrent
601-107	Heating Theory ***[3rd 8 weeks]***	4	1	
601-146	Schematic Wiring-HVACR ***[3rd 8 weeks]***	4	1	601-140, 601-148
601-108	Principles of Gas Heat and Airflow ***[4th 8 weeks]***	8	2	601-107, 601-140, 601-148 or concurrent
	Total Hrs./Week and Total Credits	**16 hrs.**	**8 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 8 **2.0 MINIMUM PROGRAM CUMULATIVE GPA REQUIRED FOR GRADUATION**

*In order to complete this certificate in shortest timeframe, courses must be completed in sequence above.

Grant Writing - TC-699-1

Technical Certificate

Description

This certificate prepares individuals to develop grant proposals using persuasive techniques for a range of funding sources.

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
801-197	Technical Reporting	3	3	801-136
699-117	Research Basics	3	3	801-136
699-125	Proposal and Grant Writing	3	3	801-136
	Total Credits		**9 cr.**	

TOTAL CREDITS REQUIRED = 9 **Minimum 2.0 cumulative GPA required for successful completion of certificate.**

Human Resource Generalist - TC-116-2

Technical Certificate

Description

This certificate is designed for supervisors or employees who desire or have recently taken on Human Resource responsibilities. The concepts covered in the certificate would also serve those who are looking for a career change or a comprehensive overview of Human Resources, outside their current specialty area. The certificate consists of six three-credit courses. The first course to be taken should be 116-193, Intro to Human Resources, as it is a prerequisite for all other courses. Each course is conveniently offered in multiple delivery formats.

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
116-193	Intro to Human Resources	3	3	
116-112	Training & Development	3	3	
116-127	Employee Relations	2	2	116-193
116-113	Human Resource Law	3	3	116-193
116-114	Recruitment & Selection	3	3	116-193
	Total Credits		**14 cr.**	

TOTAL CREDITS REQUIRED = 14

2.0 Minimum Certificate GPA Required for Completion.

Human Resources Administration - TC-116-3

Technical Certificate

Description

Chippewa Valley Technical College's Human Resources Administration Certificate includes five courses that will equip students with the skills needed to succeed in an entry-to-mid level human resources administration position. This 15 credit certificate will teach students best practice approaches to effectively conducting key human resources activities and processes including responding to employee inquiries on employee benefits; administering compensation systems and payroll; completing accident and injury logs; implementing a return to work program; conducting employee performance programs, as well as other related human resources' processes. These courses are delivered both in internet and traditional delivery methods.

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
116-193	Introduction to Human Resources	3	3	
116-138	Safety, Security and Risk	3	3	
101-121	Payroll Accounting	3	3	
116-110	Employee Benefits	3	3	116-193
116-111	Performance Management & Total Rewards	3	3	
	Total Credits		**15 cr.**	

TOTAL CREDITS REQUIRED = 15 **Minimum 2.0 cumulative GPA required for successful completion of certificate.**

IT - 3D Simulations - TC-152-5

Technical Certificate

Description

Learner to Design 3D features for video games and web applications. Specify innovative game and role-play mechanics. Lean how to create and maintain design documentation, and collaborate with teams to produce 3D environments. This certificate can be completed in two semesters.

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
	First Term			
152-161	Game Development 1 ***[1st 8 weeks]***	8	3	
152-162	Game Development 2 ***[2nd 8 weeks]***	8	3	152-161
	Total Credits		**6 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 6 **Minimum 2.0 cumulative GPA required for successful completion of certificate**

IT - Database Specialist - TC-152-11

Technical Certificate

Description

Students will develop a solid foundation in basic database design and development from conventional data analysis through database creation. Students install and configure database management systems that utilize the SQL language to create and manipulate relational databases in both SQLite and MySQL. Students apply these concepts through hands-on activities and database management techniques.

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
	First Term			
152-132	Database 1 ***[2nd 8 weeks]***	8	3	Program/Certificate student
152-136	Database 2 ***[1st 8 weeks]***	8	3	152-132
	Total Credits		**6 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 6 **Minimum 2.0 cumulative GPA required for successful completion of certificate**

IT - Java Programmer - TC-152-6

Technical Certificate

Description

This certificate includes an introduction to Object-Oriented Design and Programming. Students will learn to create Java classes and write their own methods. Basic programming skills, such as decision-making, looping, string manipulation, and arrays, followed by advanced concepts of Input/Output, Exception classes and packages will be included. Students will use Collections Classes, Java Database Connectivity, Servlets and Java Server Pages to develop Java Web Applications.

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
	First Term			
152-142	Object Oriented Programming ***[1st 8 weeks]***	8	3	152-101
152-129	Java Web Programming ***[2nd 8 weeks]***	8	3	152-142 or concurrent
	Total Credits		**6 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 6 **Minimum 2.0 cumulative GPA required for successful completion of certificate.**

IT - Microsoft .NET Programmer - TC-152-7

Technical Certificate

Description

Students will design, create, and modify .NET based windows and web applications using the C#/VB.NET languages. Analyze user needs to design the user interface, database tables, and classes. N-Tier architecture is encouraged for class design. The ASP.NET course will explore the various forms of Web development including but not limited to Web Forms, Web API and MVC. Students apply these concepts through hands-on activities and application development.

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
	First Term			
152-103	.NET Application Development ***[1st 8 weeks]***	8	3	152-101
152-105	.NET – ASP ***[2nd 8 weeks]***	8	3	152-103 or concurrent
	Total Credits		**6 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 6 **Minimum 2.0 cumulative GPA required for successful completion of certificate.**

IT - Network Support Associate - TC-150-2

Technical Certificate

Description

Completion of this certificate prepares the learner to perform basic installation, configuration and support of Unix/Linus, and Microsoft network operating systems as well as provide essential support to desktop operating systems such as Microsoft Windows and Linux in a networked environment. The learner will also be prepared to perform numerous types of basic hardware installation and maintenance functions on PC platforms. This certificate can be completed in 2 semesters.

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
150-105	IT Career Preparation	3	2	
150-111	IT Software for Networking	3	2	
804-133	Math & Logic	4	3	
150-134	Network Infrastructure Concepts	3	2	Program/Certificate student; Co-requisites: 150-111, 804-133
150-143	Computer Hardware	4	3	
150-150	CCNA 1: Introduction to Networks	4	3	Program/Certificate student
150-151	CCNA 2: Routing and Switching Essentials	4	3	150-150
150-163	Microsoft Client Operating Systems	3	2	
150-165	Microsoft Server 1	3	2	150-150, 150-163
150-176	Linux 1	3	2	
150-183	Wireless Networking	3	2	150-134
	Total Credits		**26 cr.**	

A minimum final grade of "C-" is required in all courses.

TOTAL CREDITS REQUIRED = 26

2.0 Minimum Certificate GPA Required for Completion.

IT - Web Development Specialist - TC-152-8

Technical Certificate

Description

Students will create dynamic responsive-design web pages using HTML and Cascading Style Sheets (CSS). Extend their knowledge into creating dynamic web applications using client-side programming languages such as JavaScript, JQuery, and other new client-side development languages and tools. Students apply these concepts through hands-on activities utilizing web design and development techniques.

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
	First Term			
152-108	Web 2 – JavaScript ***[2nd 8 weeks]***	8	3	152-101, (152-107 or concurrent)
152-159	Web Multimedia ***[1st 8 weeks]***	8	3	152-108
	Total Credits		**6 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 6 **Minimum 2.0 cumulative GPA required for successful completion of certificate.**

A minimum final grade of "C-" is required in all courses

Leadership/Supervision - TC-116-1

Technical Certificate

Description

No matter what your career, success depends on demonstrating good leadership skills in a very competitive workplace. This certificate will provide you with the skills and understanding necessary to become more effective in leadership positions in business, industry, government, and healthcare. Increase your knowledge in personal leadership, new management principles, ethics, and employee performance techniques. Courses in this certificate are offered at varying times and delivery methods to accommodate your needs.

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
102-133	Leadership for Business Excellence	3	3	
102-112	Principles of Management	3	3	
116-111	Performance Management & Total Rewards	3	3	
102-113	Business Ethics	3	3	
	Total Credits		**12 cr.**	

TOTAL CREDITS REQUIRED = 12 **2.0 Minimum Certificate GPA Required for Completion.**

Marketing Strategy - TC-104-3

Technical Certificate

Description

This certificate will explore marketing strategies that will focus on developing an appropriate marketing mix for an organization and developing a marketing plan that will reach the desired target market.

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
104-102	Marketing Principles	3	3	
104-104	Sales Presentations	3	3	
104-105	Marketing Research	4	3	104-102
104-125	Advertising	3	3	104-102
104-183	Marketing Strategy	3	3	Spring only, 104-102, 104-105, 104-125 or concurrent
	Total Credits		**15 cr.**	

TOTAL CREDITS REQUIRED = 15 **2.0 Minimum Certificate GPA Required for Completion.**

Network Hardware Support Specialist - TC-150-3

Technical Certificate

Description

The Network Hardware Support Specialist Certificate prepares individuals to install, configure, and administer a variety of networking devices that are common in today's LAN environments. This certificate is intended for electronics and automation technicians whose duties include some computer and/or network maintenance. This certificate is also appropriate for students enrolled in the Electromechanical Technology Program at CVTC and adds value to that degree. This certificate may take two to three semesters to complete.

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
150-110	Help Desk & User Support	2	1	
150-143	Computer Hardware	4	3	150-134 or concurrent
150-150	CCNA 1: Introduction to Networks	4	3	Program/Certificate student
150-151	CCNA 2: Routing and Switching Essentials	4	3	150-150
150-170	Computer Maintenance & Support	5	3	150-143
150-183	Wireless Networking	3	2	150-134
	Total Credits		**15 cr.**	

A minimum final grade of "C-" is required in all courses.

TOTAL CREDITS REQUIRED = 15 **2.0 Minimum Certificate GPA Required for Completion.**

Oil, Electric & Hydronic Heating - 61-601-3

Pathways Certificate

Description

This entry level certificate prepares students with basic oil and electric heating skills. Students will also focus on basic hydronic skills, which is movement of heat using water. After successful completion, students have the opportunity to apply these credits to the Air Conditioning, Heating, Refrigeration and Renewable Technology 1-year technical diploma and the 2-year associate degree.

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
	First Term			
601-125	Safety – HVAC ***[1st 8 weeks]***	2	1	Program student
601-140	Electricity Theory ***[1st 8 weeks]***	2	1	
601-148	Electricity Principles ***[2nd 8 weeks]***	4	2	601-140 or concurrent
601-107	Heating Theory ***[3rd 8 weeks]***	2	1	
601-146	Schematic Wiring-HVACR ***[3rd 8 weeks]***	2	1	601-140, 601-148
601-109	Principles of Oil, Electric & Hydronic Heating ***[4th 8 weeks]***	2	1	601-107, 601-140, 601-148 or concurrent
	Total Hrs./Week and Total Credits	**14 hrs.**	**7 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 7 **2.0 MINIMUM PROGRAM CUMULATIVE GPA REQUIRED FOR GRADUATION**

*In order to complete this certificate in shortest timeframe, courses must be completed in sequence above.

Programmable Logic Controller - TC-620-1

Technical Certificate

Description

This certificate will allow the working technician or manufacturing supervisor to enhance their skills to troubleshoot, modify, or enhance automated systems that use programmable logic controllers. Skills in programming, troubleshooting, SCADA, HMI, and networked PLC concepts using the Rockwell Logix family of PLCs and exposure to additional PLC platforms are taught.

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
620-155	Industrial Electronics I	3	2	
620-135	PLC Introduction	3	2	620-155 or instructor approval
620-136	PLC Applications	6	3	620-135
605-152	SCADA Concepts	4	2	620-136
620-148	Automated Systems Interfacing	8	4	620-136
	Total Credits		**13 cr.**	

TOTAL CREDITS REQUIRED = 13 **2.0 Minimum Certificate GPA Required for Completion.**

Pumping Systems Maintenance - TC-462-2

Technical Certificate

Description

Centrifugal pumps are the movers of most processes. Understanding how pumps work, what it takes to install and maintain pumps is essential in maintenance. Training includes driveline components (belts, chain, gears, bearings) as well as basic and precision shaft alignment techniques. Developing communication skills and team skills and working with industrial print reading. Learners will also explore what are the steps and processes of preventative maintenance.

Course Number	Course Title	Credits	Prerequisite(s)/Comments
462-111	Mechanical Concepts	2	Certificate student
462-120	Centrifugal Pumps & Alignment	3	Certificate student, 462-126 or concurrent
462-126	Mechanical Alignment & Bearing	2	Certificate student, 462-111, 462-119 or concurrent
462-130	Manufacturing Prints & Networks	2	Certificate student
625-180	Manufacturing Skills Standards	2	
	Total Credits	**11 cr.**	

TOTAL CREDITS REQUIRED = 11

2.0 Minimum Certificate GPA Required for Completion.

Refrigeration - 61-601-4

Pathways Certificate

Description

This entry level certificate prepares students with skills necessary for basic refrigeration services. This certificate prepares students to take the Environmental Protection Agency (EPA) 608 certification exam for refrigerant recovery, recycling and reclamation. After successful completion, students have the opportunity to apply these credits to the Air Conditioning, Heating, Refrigeration and Renewable Technology 1-year technical diploma and the 2-year associate degree.

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
	First Term			
601-125	Safety – HVAC ***[1st 8 weeks]***	2	1	Program student
601-140	Electricity Theory ***[1st 8 weeks]***	2	1	
601-148	Electricity Principles ***[2nd 8 weeks]***	4	2	601-140 or concurrent
601-106	Refrigeration Theory ***[3rd 8 weeks]***	2	1	
601-146	Schematic Wiring-HVACR ***[3rd 8 weeks]***	2	1	601-140, 601-148
601-105	Refrigeration Principles ***[4th 8 weeks]***	4	2	601-106, 601-140, 601-148 or concurrent
	Total Hrs./Week and Total Credits	**16 hrs.**	**8 cr.**	

MINIMUM PROGRAM CREDITS REQUIRED = 8 **2.0 MINIMUM PROGRAM CUMULATIVE GPA REQUIRED FOR GRADUATION**

*In order to complete this certificate in shortest timeframe, courses must be completed in sequence above.

Sales - TC-104-4

Technical Certificate

Description

This certificate will focus on developing a customer base and building long-term relationships with clients. The participants will apply selling basics in order to enhance the buying experience for their customers and the bottom line for their employers.

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
104-102	Marketing Principles	3	3	
104-104	Sales Presentations	3	3	
104-191	Service Excellence	3	3	Spring only
104-140	Business to Business Selling	3	3	Fall only
	Total Credits		**12 cr.**	

TOTAL CREDITS REQUIRED = 12 **2.0 Minimum Certificate GPA Required for Completion.**

Social Media - TC-104-7

Technical Certificate

Description

This certificate will explore a variety of social media platforms and their marketing uses, result in a tangible Social Media Marketing plan, execution of the plan through hands-on application with a fictitious business, navigate social media regulations and crisis communication efforts, and evaluate analytical data to present to stakeholders.

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
104-109	Social Media Marketing Strategy	2	2	
104-163	Social Media Policy & Ethics	3	3	
104-127	Digital Marketing Campaigns	3	3	104-109
104-174	Digital Marketing Analytics	2	2	
	Total Credits		**10 cr.**	

TOTAL CREDITS REQUIRED = 10 **Minimum 2.0 cumulative GPA required for successful completion of certificate.**

Social Media Writing - TC-699-2

Technical Certificate

Description

This certificate prepares individuals to communicate for informative and persuasive purposes using a variety of electronic platforms.

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
801-141	Introduction to Mass Communication	3	3	801-136
699-127	Digital Media Communication	3	3	801-136
699-133	Writing Content for the Web	3	3	801-136
	Total Credits		**9 cr.**	

TOTAL CREDITS REQUIRED = 9 **Minimum 2.0 cumulative GPA required for successful completion of certificate.**

Software Specialist - TC-106-10

Technical Certificate

Description

This certificate is designed to give students experience in the beginning and intermediate skills necessary to become a competent user of various productivity software. Software studied will include Word, Excel, Access, PowerPoint, and Publisher. Students will learn these skills using textbook tutorials and case problems as well as real-world projects.

Course Number	Course Title	Credits	Prerequisite(s)/Comments
102-109	Business Analytics	3	
103-102	Microsoft Office Suite	2	Fall only
106-107	Publications	1	Fall only, 103-102
106-116	Database	1	Fall only, 103-102
106-172	Microsoft Outlook	1	Fall only,
106-169	Applied Software	1	Fall only, 106-107, 106-116, 106-122, 106-139, 106-172, (106-124 and 106-125 or 102-109), or concurrent
106-122	Document Processing	1	Spring only, 103-102
106-139	Business Presentations	1	Spring only, 103-102
	Total Credits	**11 cr.**	

TOTAL CREDITS REQUIRED = 10 **2.0 Minimum Certificate GPA Required for Completion.**

Technical Writing - TC-699-4

Technical Certificate

Description

This certificate prepares individuals to construct professional documents that integrate text and visual components to deliver clear, concise, and accessible messages.

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
801-197	Technical Reporting	3	3	801-136
699-131	Information Design	3	3	801-136
699-137	Technical Documentation	3	3	801-136
	Total Credits		**9 cr.**	

TOTAL CREDITS REQUIRED = 9 **Minimum 2.0 cumulative GPA required for successful completion of certificate.**

Umanned Aerial Systems (Drone) - TC-487-1

Technical Certificate

Description

The Unmanned Aerial Systems (Drone) certificate is designed to give the student a solid foundation in understanding Unmanned Aerial Vehicle systems technologies, capabilities, regulations, safety and legal responsibilities. The certificate will provide the student with the knowledge and practical skills necessary to successfully operate an Unmanned Aerial Vehicle. This 2-credit certificate consists of web-based ground school followed by leading edge PC-based UAS simulator training.

Course Number	Course Title	Hrs./ Week	Credits	Prerequisite(s)/Comments
487-176	Hobbyist Drone Operations	2	1	
487-178	Commercial Drone Operations	2	1	487-176 or concurrent
	Total Credits		**2 cr.**	

TOTAL CREDITS REQUIRED = 2

Minimum 2.0 cumulative GPA required for successful completion of certificate.

001 Horticulture

001-100 Horticulture, Introduction to **3 cr**

This course provides an overview of the horticulture profession. Its role and importance throughout history, current trends, and career opportunities will be covered. Particular attention is given to horticulture crops and their use, plant classification, plant propagation, and the inter-relationships between the environment, plant growth, and plant development.
Restricted to students admitted to the following program(s): Landscape Plant Turf M, Landscape Plant Turf Tec

001-102 Landscape Design/Construction **2 cr**

Students will learn how to compile a landscape design including the base plan, functional, preliminary and master plan. Emphasis will be on the landscape design sequence and implementation of the completed landscape design. Hardscape construction topics will be illustrated.
Restricted to students admitted to the following program(s): Landscape Plant Adv Pl, Landscape Plant Turf M

001-103 Turf Mgmt & Irrigation Systems **2 cr**

Examines how to effectively establish and maintain professional lawn/turf. Covers identification and selection of turf grasses, establishment and maintenance practices. The course will include nutrient needs, integrated pest management, diagnosing problems, corrective strategies, irrigation principles and irrigation implementation.
Restricted to students admitted to the following program(s): Landscape Plant Turf M, Landscape Plant Turf Tec

001-104 Greenhouse Management **3 cr**

The course will explore the overall operation of a greenhouse facility including types of structures, heating and cooling options, lighting, insect and disease management, watering methods, and equipment. Student will focus on a particular plant area (flowers, herbs or vegetables) and order plant material for the annual plant sale. Marketing of the crop will be required for the sale.
Restricted to students admitted to the following program(s): Landscape Plant Adv Pl, Landscape Plant Turf M

001-108 Bus Apps for Green Industry **2 cr**

Marketing practices of products and services for the Green Industry ranging from product pricing to distribution of product will be studied. Students will analyze new and established strategies for selling through stores, mail order catalogs and Internet sites. Effective techniques for attracting and keeping customers will be covered.
Restricted to students admitted to the following program(s): Landscape Plant Turf M, Landscape Plant Turf Tec

001-109 Horticulture Internship **2 cr**

Individuals participating in a work experience will have an opportunity to practice acquired skills and knowledge from their program coursework. This course is designed to help the student, instructor, and site supervisor to focus on major outcomes of the training and general readiness for employment in their chosen field.
Prerequisite(s): 001-100 Horticulture, Introduction to
Restricted to students admitted to the following program(s): Landscape Plant Adv Pl, Landscape Plant Turf M

001-110 Integrated Plant/Pest Mgmt **2 cr**

The course will provide students with the knowledge and skill necessary to diagnose plant problems and control strategies in the landscape. Particular attention is given to insects, diseases, weeds and cultural needs of landscape plants.
Restricted to students admitted to the following program(s): Landscape Plant Turf M, Landscape Plant Turf Tec

001-111 Sustainable Land Use Mgmt **3 cr**

Analyze the existing landscape to determine the best management practices for the location. Students will gain practical knowledge on procedures for maintaining established landscapes and the economic return. Benefits on well selected and skillful placement of native plant material for the landscape will be an integral part of the overall approach to sustainable land use in this course.
Restricted to students admitted to the following program(s): Landscape Plant Adv Pl, Landscape Plant Turf M

001-112 Interior Plants & Plantscaping **2 cr**

This course covers topics in foliage plant characteristics, requirements, and identification. Particular attention is placed upon identification of foliage plant material and the classification of these materials according to cultural and interior site use characteristics. The floral design sequence will be demonstrated.
Restricted to students admitted to the following program(s): Landscape Plant Adv Pl, Landscape Plant Turf M

001-113 Pesticide & Fertilizer App **3 cr**

This course focuses on the study and application of pesticides and fertilizers used on horticulture crops. Specific areas of study include chemical classification, mode of action in plants, injury symptoms, resistance in plants and pests, mixing and loading concerns, application methods and concerns, recordkeeping and posting requirements. Students will be required to take the Commercial Pesticide Applicator Certification exam as part of this course.
Restricted to students admitted to the following program(s): Landscape Plant Turf M, Landscape Plant Turf Tec

001-114 Entrepreneurship for Green Ind **2 cr**

Students will investigate businesses utilizing a variety of methods to create a profitable return in the production of goods and services for the Green Industry. Exploring the small business aspects of this industry will be approached through practical learning activities.
Restricted to students admitted to the following program(s): Landscape Plant Adv Pl, Landscape Plant Turf M

001-115 Vegetable and Fruit Production **3 cr**

Students will study the commercial production of vegetables in the Midwest while examining the sustainability of the various crops in the industry. Key components will be site selection, integrated cropping systems, cultural and management practices, profitability and efficiencies.
Restricted to students admitted to the following program(s): Landscape Plant Adv Pl, Landscape Plant Turf M

001-116 Landscape Plants **2 cr**

Study of annuals, perennials, and roses. Selection, care, and tips to best utilize flowers and foliage plants effectively in their landscape. Groundcovers and vines will be included. Identification of trees and shrubs and their use in the landscape with emphasis on texture, color, bark, flowers, and fruit will be examined. Students will learn proper planting and maintenance practices along with critical pests and diseases that can affect the health of these landscape plants.
Restricted to students admitted to the following program(s): Landscape Plant Turf M, Landscape Plant Turf Tec

001-120 Horticulture Soils **3 cr**

Explores soil properties, formation, development, and classification in relation to the horticulture industry. Course topics will include horticulture soils uses as a growing medium and as an engineering base for Landscaping.
Restricted to students admitted to the following program(s): Landscape Plant Turf M, Landscape Plant Turf Tec

001-125 Horticulture Equipmnt & Safety **2 cr**

Focuses on how to maintain and operate a skid steer loader, forklift, til-handlers, turf mowing equipment and general landscape equipment.
Restricted to students admitted to the following program(s): Landscape Plant Turf M, Landscape Plant Turf Tec

006 Agri-Business

006-105 Industry Skills **2 cr**

Want to have a successful career in the Agriculture industry? Learn about what is involved in having a job, managing finances or other people and leadership. This is a class that will help prepare you for your first ag-related job, as well as understanding responsibilities and expectations you will have in the future. This is a course that will get students ready to enter the work force by helping them learn and become aware of some basic skill needed to have success in the work place and provide an individual the ability to become a productive member in the community in which they live, as well as help out their family. It will also help them to become more aware of saving for their own future.

006-110 Genetics **1 cr**

Genetics related to plants, animals; cell division.

006-114 Legal Aspects of Agriscience **2 cr**

Contractual agreements; consumer rights and responsibilities; hazardous materials handling; hiring and protection of employees; debt collection; related government agricultural policy and programs; insurance needs.

006-116 Introductory Soils **3 cr**

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

006-120 Livestock Computer Apps **2 cr**

This course will apply the use of livestock management software, database management software, spreadsheets and specialized on-farm applications.

006-122 Agriculture Facilities **2 cr**

Livestock building design, drying grain, forage crops; movement and storage of grains, forages, and manure storage.

006-123 Agriculture Equipment **3 cr**

This course provides fundamentals of calibration and maintenance of planting, seeding, harvesting, and milking equipment, including emphasis on precision agricultural concepts. By the end of the course, participants will have the skills and knowledge to operate, maintain, and calibrate precision agriculture equipment components.

006-130 Agribusiness Financial Mgmt **2 cr**

This course focuses on the principles of financial and business management for agricultural businesses with a major focus on farms. Emphasis is given to business types, enterprise budgets, cash flow analysis, tools for analyzing financial decisions, interpreting balance sheets and other financial statements, obtaining credit and comparing methods of reducing price variations.

006-138 Agriculture Marketing **2 cr**

This course will apply supply and demand economic principles to the marketing of agricultural commodities with a large focus on grains. This course will focus on the development of marketing strategies for agricultural commodities using cash sales, forward contracts, hedging, and options.

006-140 Agriculture Sales **2 cr**

Provides 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.

006-151 Plant Protection Products **2 cr**

This course focuses on the study and application of crop protection products used on agronomic crops in the upper Midwest. Specific areas of study include chemical classification, of action in plants, injury symptoms, resistance in plants and pests, mixing and loading concerns, application methods and concerns, recordkeeping and posting requirements and the chemical's application to precision agriculture. Students will be required to take the Commercial Pesticide Applicator Certification exam as part of the course.

006-160 Plant Science **3 cr**

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

006-161 Weed Identification **2 cr**

The course will focus on the classification and identification of weeds commonly found in the upper Midwest (primarily the 30 common Wisconsin weeds required to pass the Wisconsin Certified Crop Advisor Test). Weeds will be identified by their seed, seedling, and mature plant characteristics. Integrated Pest Management (IPM) control methods appropriate for plant families and life cycle will be discussed and evaluated.

006-162 Soil Fertility and Fertilizers **2 cr**

This course will review soil chemistry, plant required nutrients, soil testing, soil test interpretation, liming soils, soil fertilizers, fertilizer analysis, methods of fertilizer application, manure applications, environmental concerns about fertilizer applications, and economics of fertilizer use. Emphasis will be on the profitable use of fertilizers in crop production.

006-164 Plant Pathology and Entomology **2 cr**

The course will focus on scouting practices for the common pests of corn, alfalfa, and soybeans. Class time will be split between 1) classroom lecture, 2) a web enhanced portion, 3) discussion concerning the identification and management of pests, 4) field applying approved scouting practices, and 5) discussing problems brought in from the field--weeds, diseases, insects, etc.

006-166 Computer Applic-Agronomy **2 cr**

This course will focus on the use of commercial computer software programs specifically designed to facilitate crop production and management. Specific software packages the student will work with include: Agrisource, Nutri-Plan, SNAP; and may include introduction to: Select, ABCS, MACHCOST, and other software which comes available.

006-168 Row Crop Management **2 cr**

This course will focus on the cultural practices important in the profitable production of row crops common to Wisconsin (corn and soybeans). Specific attention will be given to seed bed preparation, planting, variety selection, fertilization, weed control, insect control, disease control, harvesting, drying and storing corn and soybeans. Budgeting the row crop enterprise will be covered in instruction.

006-169 Forage Crop Management **2 cr**

Cultural practices; varietal selection; calculations of forage quality; forage stand evaluation.

006-180 Animal Science **3 cr**

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

006-182 Animal Reproduction **3 cr**

Reproductive process in animals; conception, fetal development.

006-184 Herd Health & Sanitation **2 cr**

Maintain healthy dairy herd; reducing somatic cell count; role of vaccines, antibiotics, and probiotics.

006-186 Managing Youngstock & Dry Cows **1 cr**

Non-lactating cow to calving, raising heifers to parturition.

006-188 Feed Analysis **2 cr**

Dairy feeds; quality and nutritional value.

006-189 Ration Formulation **2 cr**

Nutritional requirements for growth, reproduction and lactation stages.

006-190 Agriscience Internship **3 cr**

Individuals participating in a work experience will have opportunity to practice acquired skills and knowledge from their program coursework. This course is designed to help the student, instructor, and site supervisor to focus on major outcomes of the training and general readiness for employment in their chosen field.
Restricted to students admitted to the following program(s): Agriscience Technician

006-192 Farm Business Spanish **2 cr**

Students will acquire Spanish speaking skills appropriate for the dairy and livestock industry. Emphasizes the use of vocabulary and expressions needed for communication in the dairy and livestock industry. Addresses cultural aspects of working with Spanish speaking populations.

006-193 Interm Farm Business Spanish **2 cr**

Intermediate Farm Business Spanish is a course that provides experience to improve conversational Spanish language skills with an emphasis on the dairy farm business setting.

080 Production Agriculture

080-310 Farm Business Financial Mgmt **5 cr**

This course is intended to implement proper farm business management principles including but not limited to: Balance sheet formation and interpretation, income statement formulation and interpretation, statements of cash flow formation and interpretation, bench-marking farm data interpretation, insurance products and their use on the farm, crop and livestock budgets as pertinent to current year, and other agriculture related topics as seen relevant at the current time. Farm Operation students will be allotted 10 hours of on farm time to assist with completion of coursework. Tours, field trips, seminar and workshops will also be offered during the term of the course work.

080-312 Livestock Repro & Nutrition **4 cr**

This course covers both livestock reproduction and nutrition and how they are tied together. For reproduction, students will learn about artificial insemination, and emerging technologies/strategies for controlling the reproductive function of farm animals. For Nutrition, the main focus of the course covers principles of ruminant nutrition with dairy cows and replacement heifers.

080-314 Crop Produc & Soil Fertility **4 cr**

This class takes a mix of the basic science and growth stages of a plant and advances through the growth and plant needs throughout the growing season. Below the surface of the plants, students learn how to maintain soil and keep soil fertile throughout the year to minimize growing costs per acre while maximizing the return on investment.

080-320 Farm Bus Planning & Analysis **5 cr**

The course will emphasis developing a farm business plan, implementing a farm record keeping system, and completing a farm business analysis with the use of FinPack. In addition, there may be computer based contact and phone contact as needed during the implementation of the course work. Farm Operations students will be allotted 10 hours of on farm time to assist with completion of coursework. Tours, field trips, seminar and workshops will also be offered during the term of the course work.

080-322 Animal Husbandry & Management **4 cr**

This course will focus on maintaining a healthy dairy herd; reducing somatic cell count; role of vaccines, antibiotics, and probiotics along with the development of skills related to managing large herds and also supervising employees.

080-324 Field Applications **4 cr**

Students in Field Applications learn new technology and how they can maximize the data that is being recorded throughout the year. Manipulating and using data management practices to help maximize profits are keys to this class.

090 Farm Business Management

090-310 Farm Bus Planning & Risk Mgmt **4 cr**

Emphasizes management skills and concepts necessary for farming in today's changing technology and farm business financing. Organize and maintain farm business records, interpret and analyze the records to assist in making sound farm management decisions. Entire farming operation is assessed and plans are developed for future needs, goals and objectives.
Restricted to students admitted to the following program(s): Farm Bus & Production Mgmt

090-320 Land Use Management **4 cr**

Prepare for land use and nutrient management, develop plan for equipment maintenance and replacement, study alternative energy sources, implement a farm safety plan, and implement environmental land use recommendations. This course is designed for students who have already completed equivalent course in Farm Business Production Management program.
Restricted to students admitted to the following program(s): Farm Bus & Production Mgmt

090-330 Precisn Agronomics&EnergyMgmt **4 cr**

Crop management, including planning, planting, care, harvesting, storage, and marketing.
Restricted to students admitted to the following program(s): Farm Bus & Production Mgmt

090-340 Livestock Nutrition&Reproductn **4 cr**

Apply livestock nutrition principles and complete a farm business analysis.
Restricted to students admitted to the following program(s): Farm Bus & Production Mgmt

090-350 Farm Bus Analysis&Mrkt Strat **4 cr**

Computerized financial records, credit, budgeting, farm estate planning, financial analysis, and risk management.
Restricted to students admitted to the following program(s): Farm Bus & Production Mgmt

090-360 Livestk Fac,Health&Biosecurity **4 cr**

Dairy production including housing youngstock, breeding and sire selection, herd health, quality milk production, and marketing.
Restricted to students admitted to the following program(s): Farm Bus & Production Mgmt

090-390 Cash Grain Crop Mgmt **4 cr**

The course content focuses on issues and concerns of particular interest to the student involved in the production of agronomic or specialty crops for cash sale. Topics addressed include marketing alternatives and strategies; biotechnology applications in crop production; advanced production practices; financial management of the crop enterprise; and human resource issues. The course includes 72 hours of group instruction and 8 hours of individual on-farm instruction.
Restricted to students admitted to the following program(s): Farm Bus & Production Mgmt

091 Animal Husbandry

091-110 Livestock Evaluation & Judging **2 cr**

Cattle Evaluation and Judging is a hands-on two credit hour lecture/laboratory course concentrating on the science and art of live animal evaluation. The lectures will cover all aspects of improving the selection of meat and dairy animals and the efficiency of meat animal and dairy production. Laboratory activities will include the evaluation of market animals and the evaluation and selection of breeding animals of all meat animal and dairy species.

091-112 Livestock Modernization **2 cr**

Livestock Modernization will focus on technology and modernization, robotic milking barn design, data management on farms with robotic milkers, automated feed pushers, precision feeding, using activity monitors for heat detection and decision making tools. Students will participate in various lab opportunities on state-of-the art dairy farms in western Wisconsin.

091-120 Livestock Housing **2 cr**

This course will involve planning a total dairy facility. This will include site selection, long-range planning, plan development, specifications, and contracts. It will include facilities for all management groups including replacements and the milking and dry cows. A milking center, special handling and treatment facilities, manure and waste management, and feeding facilities will be included. Emphasis will be placed on environmental issues both within the facility and the effect of the operation on the surrounding area. It will include animal health as it relates to the design and operation of the facility. Utilities to adequately and safely operate the facilities will also be covered.

091-121 Livestock Records Software **3 cr**

This course will apply the use of dairy and livestock management, decision aid software, database management software, spreadsheets and specialized livestock computer programs.

091-122 Animal Breeding & Genetics **2 cr**

This course is a study of available and emerging technologies/strategies for controlling the reproductive function of farm animals, including artificial insemination, embryo manipulation and transfer, control of ovulation and animal cloning. Laboratories are "hands on" sessions using available technologies with emphasis on artificial insemination of cattle.

091-130 Animal Science Internship **1 cr**

This course is required for all students in the Animal Science Management Associate Degree Program. Provides students work experience in an area of their choice and complements on-campus instructional program. Potential for full-time employment for program graduates is available.
Restricted to students admitted to the following program(s): Animal Science Management

091-132 Ruminant Nutrition & Feeding **2 cr**

This course covers principles of ruminant nutrition with dairy cows and replacement heifers as the main focus. At the end of this course, students will be familiar with current scientific concepts of ruminant nutrition. In addition, students will gain practical knowledge and critical thinking skills in evaluating dairy rations. Learning is not only acquiring new knowledge, but more importantly, it includes the ability to apply, to analyze, to synthesize, to criticize, and to evaluate.

091-134 Advanced Reproduction **2 cr**

This course is designed to provide students with learning experiences such as comparative anatomy and physiology of the male and female reproductive systems of domestic animals, endocrinology of reproduction, gestation and parturition. Students will also become AI Certified upon successful completion of the course. Hands on learning will be key to application of these methods in the future. Exams and quizzes are used to enhance the learner process and give feedback to the instructor. This course will also help the student develop the terminology needed to discuss the reproductive process in ruminants. Discussion of the physiology will include the endocrine control of reproduction. The goal of the course is to help the students understand the rationale principles used in developing guidelines for good reproductive management.

091-140 Herd Management **2 cr**

Herd Management is intended for herd managers and will focus on the development of skills related to managing large herds and also supervising employees. The production phase of the dairy industry will be covered including animal selection, feeding, breeding, herd health, and management practices important to quality milk production.

091-142 Lactation and Physiology **2 cr**

This course is designed to gain an understanding of the origin of the mammary gland, mammary gland anatomy and physiology, and how the mammary gland develops in mammalian species. Milk properties and quality will also be discussed.

091-144 Transition&Replacement Animals **1 cr**

Feeding and management of dry cows through calving will be discussed in this course. Calf care through puberty, breeding, and gestation will also be covered. Beef and dairy beef management will be referenced throughout. Facility requirements for these classes of livestock will be reviewed. Record keeping systems will be developed and on-farm recommended practices will be presented to selected producers.

091-145 Special Livestock University **1 cr**

This two-week special livestock seminar introduces students to an analysis of genetics, reproductive physiology, growth and development, nutrition and digestive physiology, anatomy, meat science, animal classification, current issues and overviews of the poultry, equine, sheep, swine, and aquaculture industries. Content may be enhanced by utilizing appropriate computer applications. Presenters for this course are specialty livestock producers in western Wisconsin.

091-146 Animal Science Seminar **1 cr**

This class is a clinical. Students will work directly with local industry in the Animal Science profession to further their education and experiences in a real- work setting.

091-147 Animal Science Capstone **2 cr**

The purpose of the Capstone course is for the students to apply knowledge acquired during the Animal Science program to design a project required for Technical Skills Attainment for the WTCS system. During the project, students engage in the entire process of solving a real-world animal science scenario. This is a last semester course only.

091-180 Animal Science **3 cr**

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

091-184 Herd Health **3 cr**

Maintain healthy dairy herd; reducing somatic cell count; role of vaccines, antibiotics, and probiotics.

091-188 Feed Analysis **2 cr**

Provides an understanding of the needs of livestock from a feed perspective. Specific details for forage crops and grain quality and how they relate to livestock feed and nutrition will be taught using hands on technology and tools.

093 Crop & Soil

093-107 Precision Management **2 cr**

This course will focus on the use of commercial computer software programs specifically designed to facilitate crop production and management. This course ties in the Precision Farming equipment from in the field to the computer to manipulate and manage the date using various software packages that agronomists and producers use on a day-to-day basis.

093-110 Introduction to Agronomy **2 cr**

This class provides a fundamental introduction to the agronomy careers and opportunities. Through hands on, in-person tours and site visits students will have a basic understanding of the opportunities agronomy careers have to offer.

093-112 Precision Farming **2 cr**

This class provides students with an in depth look at all areas of precision farming specifically related to the field equipment. Basic GPS, auto guidance, row clutches, implement steering, drone technology and variations and combinations of both are main topics in this class. Students will learn to calibrate, set up, and operate various precision farming equipment.

093-114 Plant Protection Products **2 cr**

This course focuses on the study and application of crop protection products used on agronomic crops in the upper Midwest. Specific areas of study include chemical classification, of action in plants, injury symptoms, resistance in plants and pests, mixing and loading concerns, application methods and concerns, recordkeeping and posting requirements and the chemical's application to precision agriculture. Students will be required to take the Commercial Pesticide Applicator Certification exam as part of the course.

093-116 Introductory Soils **3 cr**

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

093-118 Agriculture Equipment **2 cr**

This course provides fundamentals of calibration and maintenance of planting, seeding, and harvesting, equipment, including emphasis on precision agricultural concepts. By the end of the course, participants will have the skills and knowledge to operate, maintain, and calibrate agriculture equipment components.

093-120 Plant Science **3 cr**

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

093-122 Nutrient Management **2 cr**

This course will review soil chemistry, plant required nutrients, soil testing, soil test interpretation, liming soils, soil fertilizers, fertilizer analysis, methods of fertilizer application, manure applications, environmental concerns about fertilizer applications, and economics of fertilizer use. Emphasis will be on the profitable use of fertilizers in crop production.

093-124 Pest Management **1 cr**

This course will help students with identifying common field pests for corn, soybeans, and alfalfa crops. Weeds, insects, and fungi are just a few of the topics for identification and management. Management practices that include biological, mechanical, and chemical are all included as part of Pest Management class.

093-126 Precision Field Applications 1 **1 cr**

This course is 40-hours of hands on time in the field using various farm equipment. Students in the Precision Field Applications 1 course will be responsible for planting the Crop Education Plot, CVTC farmland, and other farms as time allows. Students will be responsible for setting up equipment, proper operation of equipment and the chemical and seed recommendations for the farms.
Corequisite(s): 458-308 CDL License Training-Pre-Trip

093-130 Agronomy Internship **1 cr**

The Agronomy Internship is 190 hours of On-the-Job Training: This course is required for all students in the Precision Agronomy Management Associate Degree Program. Provides students work experience in an area of their choice and complements on-campus instructional program. Potential for full-time employment for program graduates is available.
Restricted to students admitted to the following program(s): Precision Agronomy Management

093-132 Crop Scouting **2 cr**

The course will focus on scouting practices for the common pests of corn, alfalfa, and soybeans. Students will learn the traditional crop scouting methods as well as using the new drone (UAS) technology. Diagnosing problem areas in the field and giving recommendations will be the key topic of this course.

093-134 Precision Field Applications 2 **1 cr**

Students will have a continuation of the Precision Field Applications 1 course, this one happening during harvest season. Students will be responsible for setting up harvesting equipment and harvesting the crops. They will also be responsible for any fall tillage work that may be done on the CVTC farmland.

093-136 Row Crop Management **2 cr**

This course will focus on the cultural practices important in the profitable production of row crops common to Wisconsin (corn and soybeans). Specific attention will be given to seed bed preparation, planting, variety selection, fertilization, weed control, insect control, disease control, harvesting, drying and storing corn and soybeans. Budgeting the row crop enterprise will be covered in instruction.

093-140 Fertilizer Systems & Tech **2 cr**

This class will focus specifically on the use of pull-type and self-propelled spray equipment. Upon completion of the course students will be able to calibrate and operate spray equipment. This class also will give students the perspective of different cooperative fertilizer operations and equipment. Students will be able to calibrate fertilizer spreaders upon class completion.

093-142 Agronomy Capstone Project **1 cr**

The purpose of the capstone course is for the students to apply knowledge acquired during the Precision Agronomy Management program to design a project required for Technical Skills Attainment for the WTCS system. During the project, students engage in the entire process of solving some real-world agronomy scenarios. This is a last semester course only.

093-144 Crop Planning **2 cr**

This course will focus on crop rotations and crop planning. Topics that are covered in this class are soil management and tillage practices, spray residues, cover crops, and crop diversity.

101 Accounting

101-100 Orientation to Accounting **1 cr**

Students develop skills to enhance their success in college and their accounting careers. These skills include self-assessment, time management, electronic file management, study skills, learning styles, active reading, communication skills, PowerPoint skills and career development. Students research the accounting field through research on the Internet, current periodicals and career information surveys. Also, students develop an accounting academic plan and explore the resources available for accounting students at CVTC.

101-104 Database for Accounting **2 cr**

This course introduces intermediate Microsoft Access concepts with accounting applications. Students will create forms, sub forms, and reports for accounting applications. Students will also learn to use the switchboard manager, create macros, create charts, and administer a database system. In addition, students will also be introduced to PDF applications used for reporting accounting information.
Prerequisite(s): 101-106 Accounting Spreadsheets

101-105 Accounting, Intro to **3 cr**

This is an introductory course designed to introduce the learner to the basic accounting language and concepts of business entities. Skills such as, analyzing business transactions, applying fundamental accounting concepts, identifying accounting control procedures, and evaluating financial statements will be developed. This course is intended for the non-accounting major.

101-106 Accounting Spreadsheets **2 cr**

This course introduces students to intermediate Excel concepts with accounting applications. Students will utilize a variety of financial analysis, and database functions as they create, format, and modify worksheets in Excel.
Prerequisite(s): 101-111 Accounting I

101-111 Accounting I **4 cr**

This course prepares the learner to analyze, record, summarize and interpret accounting information. This course focuses on business transactions, financial statements, merchandising business transactions, special journals, internal controls, receivables and plant assets. The learner will prepare accounting transactions for a practice set, including month-end transactions and preparation of the financial statements.

101-113 Accounting II **4 cr**

This course presents basic concepts for partnerships and corporations. It introduces current liabilities, bonds, cash flow statement preparation, financial statement analysis, cost-volume profit, and budgeting. The course includes a practice set in which the student records transactions, records adjusting entries, and prepares financial statements for a corporation.
Prerequisite(s): 101-111 Accounting I

101-116 Intermediate Accounting **4 cr**

This course requires the learner to apply accounting information to make business decisions. The course builds upon previously learned accounting principles and stresses a more complex application of these principles.
Prerequisite(s): 101-113 Accounting II

101-117 Intermediate Accounting II **4 cr**

This course is designed to utilize the students previously learned accounting concepts through a more complex application of accounting principles. Students will study fixed asset utilization, debt and equity investments, EPS calculations, and financial statement analysis. This course is primarily a problem-solving course involving considerable reasoning and logic.
Prerequisite(s): 101-116 Intermediate Accounting

101-118 Managerial Accounting **3 cr**

This course develops financial skills to enable better managerial decision-making for business entities by using financial statements to control activities such as forecasting financial results; modifying capital structure for efficiency; structuring working capital for maximum performance; rating capital budgeting proposals; preparing operating cash, and capital budgets; and evaluating long-term financing alternatives.
Prerequisite(s): 101-116 Intermediate Accounting and 101-121 Payroll Accounting and 101-123 Income Tax I and 101-125 Cost Accounting

101-121 Payroll Accounting **3 cr**

The learner will make the necessary payroll calculations and record keeping, including social security taxes, income tax withholdings, and other deductions. They will also maintain employee earnings records, record journal entries and generate payroll reports. A comprehensive payroll project is required.

101-123 Income Tax I **4 cr**

This course introduces the learner to federal and Wisconsin income tax laws with an emphasis on preparation of individual and small business income tax returns. Students learn to apply federal and Wisconsin tax laws relating to gross income, exemptions, filing status, deductions, retirement plans, gains and losses, depreciation, business income and deductions, credits, special taxes, and payments.
Prerequisite(s): 101-111 Accounting I

101-125 Cost Accounting **3 cr**

The study of cost accounting provides a practical approach to job order and process cost accounting systems. The course blends theory with practical application of problems and case studies. Topics include budgeting, standard cost variances, direct costing, and break-even analysis.
Prerequisite(s): 101-113 Accounting II

101-126 Income Tax Preparation **2 cr**

This course provides students with a practical application of individual income tax laws. Students will exhibit professionalism, interview taxpayers, use tax resources, and prepare individual income tax returns using software and electronic filing. Students practice these skills while participating in the Internal Revenue Service sponsored Voluntary Income Tax Assistance program.
Prerequisite(s): 101-123 Income Tax I

101-127 Auditing **2 cr**

This course introduces basic auditing concepts with extensive audit methodology including work paper preparation.
Prerequisite(s): 101-113 Accounting II

101-131 Accounting Systems **3 cr**

Student will examine the systems development life cycle including systems principles and internal controls. They will then apply these principles and controls to various systems analysis, designs, and implementation projects.
Prerequisite(s): 101-116 Intermediate Accounting and 101-150 Accounting Software Apps

101-133 Acct Govt & Nonprofit Entities **2 cr**

This course introduces the learner to fund based accounting concepts used by governmental units, non-profit organizations, and healthcare entities in accordance with GASB. We will explore the governmental fund accounting cycle starting with budgetary requirements, recording journal entries, and concluding with reporting for the various fund types. Accounting and reporting activities for non-profit organizations, including healthcare entities, will be explored.
Prerequisite(s): 101-113 Accounting II

101-149 Intro to QuickBooks **2 cr**

This is a computerized accounting course where the student is expected to have a basic understanding of the accounting fundamentals to be applied to the QuickBooks bookkeeping system. The learner will post transactions within the system including receipting for cash sales and sales on account as well as purchasing on account and with cash. The learner will also perform the bank reconciliations and financial statement preparation with the QuickBooks system.

101-150 Accounting Software Apps **3 cr**

This course introduces students to accounting software used by small businesses. The learner will use Peachtree Complete Accounting software and QuickBooks Pro software to create and maintain accounting records and to edit and design reports and financial statements. The learner will record general ledger, receivables, payables, inventory, and payroll transactions. Note: If enrolling in an Internet section, please be advised that to complete this class at home you will be required to purchase Peachtree Complete and QuickBooks Prostudent software. These software packages are included with the textbook.
Prerequisite(s): 101-111 Accounting I

101-160 Accounting Internship **2 cr**

Culminates the accounting program with 128 hours of accounting experience. Individuals participating in a work experience will have the opportunity to practice acquired skills and knowledge from the Accounting program coursework. This course is designed to help the student, instructor, and site supervisor to focus on major outcomes of the training and general readiness for employment in the accounting field.
Prerequisite(s): 101-116 Intermediate Accounting

101-163 Accounting Capstone **3 cr**

This project-based course is a culmination of the knowledge and skills from financial accounting, cost accounting, payroll accounting, information systems, accounting spreadsheets, and income tax. The course project entails a service-based business including the sales of goods and services. The project will include creating a business, developing the computerized accounting information system, performing the daily accounting transactions, updating the inventory records, performing financial reporting and analysis, preparing payroll and completing payroll forms, and preparing tax documents.
Prerequisite(s): 101-116 Intermediate Accounting and 101-121 Payroll Accounting and 101-123 Income Tax I and 101-125 Cost Accounting

101-172 Business Finance **3 cr**

In this course aspects of organizational finance will be explored. Students will learn how to interpret financial statements as well as learning the process of budget analysis. It is imperative that leaders understand how to control and analyze the budgets they are responsible for.
Prerequisite(s): 101-105 Accounting, Intro to or 101-111 Accounting I

101-184 Business Finance & Budgeting **2 cr**

This is a basic Accounting course and not intended for Accounting program majors. The learner applies the skills necessary to achieve an understanding of the fiscal/monetary aspects of business. Each learner will demonstrate application of business types, cycles, forecasting, budgeting, expense control, and financial statement interpretation relevant to the supervisor as a non-accountant.
Prerequisite(s): (101-111 Accounting I or 101-105 Accounting, Intro to)

102 Business Administration

102-109 Business Analytics **3 cr**

Students will utilize common business software to analyze datasets present in typical business management situations, translate the analysis into business recommendations that will improve business performance, and effectively create and present analysis recommendations to decision-makers.

102-111 Human Resources, Intro to **3 cr**

Topics include the nature of employee management, including recruiting, hiring, training, and developing human resources, equal employment opportunity laws, compensation, and performance appraisal.

102-112 Principles of Management **3 cr**

Students learn about the four managerial functions of planning, organizing, leading, and controlling in contemporary organizations. Students gain insight into personal behaviors and how to turn managerial theories into personal managerial practices.

102-113 Business Ethics **3 cr**

Stresses how ethics apply specifically to business managers, management practices, and business activities. Reviews ethical responsibilities and relationships between organizational departments, divisions, business management, and the public. In case studies and discussion groups, students weigh the pros and cons of particular courses of action that affect the individual and corporate enterprise.

102-114 Managing Operations **3 cr**

Designed for mid-management careers, this course emphasizes practice of management skills. Topics covered include: strategic process management, manufacturing systems, operations strategy, product design, process technology selection, capacity planning, resource planning and scheduling, inventory control, project management and quality/productivity improvement tools and strategies.

102-115 Business Mgmt Internship **1 cr**

Provides the student with 80 hours of on-site experience completing managerial-type tasks in a professional office. Students may prepare training sessions, analyze budgets and prepare recommendations, draft reports, develop interview questions, screen resumes, complete project management tasks, plan events, or perform other responsibilities typical of business managers. Students coordinate with the instructor to locate an appropriate internship site. Course to be taken during the final semester.
Prerequisite(s): 102-109 Business Analytics and 102-112 Principles of Management and 102-113 Business Ethics and 102-188 Project Management and (102-133 Leadership for Bus Excellence or 116-190 Leadership Development) and 102-116 Strategic Management and (102-117 Business Mgmt Capstone or 102-118 Business Management Capstone)
Restricted to students admitted to the following program(s): Business Management

102-116 Strategic Management **3 cr**

Students learn and use survey construction, Internet searching, word processing, charting, problem-solving, and decision-making skills to compile and analyze data and present recommendations for typical business situations.

102-117 Business Mgmt Career Planning **2 cr**

To prepare for the business management internship, students produce all documentation related to the job-seeking process and participate in activities with business professional to polish students' job-seeking skills. Students meet once a week with the instructor to discuss techniques for getting and keeping a job and other career-enhancing strategies. Take during the final semester.
Prerequisite(s): 102-109 Business Analytics and 116-193 Human Resources, Intro and 102-113 Business Ethics and 102-130 Innovative Business Mindset and 102-188 Project Management

102-118 Business Management Capstone **3 cr**

This course emphasizes the steps of the career planning process, assessment of work-related values, skills, and interests, exploration of career options, and development of a career action plan. Students focus on enhancing their employability skills by modeling CVTC's core abilities to include; model integrity, think critically, communicate effectively and value diversity. Students craft career documents including resumes, cover letters, and portfolios to connect with employers and distinguish themselves in today's competitive job market. In addition, students participate in various career events further developing their professional skills.
Prerequisite(s): 102-109 Business Analytics and 102-112 Principles of Management and 102-113 Business Ethics and (102-133 Leadership for Bus Excellence or 116-190 Leadership Development) and 102-188 Project Management

102-130 Innovative Business Mindset **3 cr**

In this course, students will define the traits and mindset of entrepreneurs. Students will use tools to determine their personal entrepreneurial traits. Students will examine a variety of entrepreneurial companies (small, social, and global). Students will understand the difference between entrepreneurs and intrapreneurs. Students will evaluate existing business plans.

102-131 Introduction to Business **3 cr**

This course introduces students to the principal areas of business, including the organization of a business, the economic, industrial, and global business environment, management and ethical issues in business, and management motivation theories.

102-133 Leadership for Bus Excellence **3 cr**

This course provides you with an opportunity to develop strong self-awareness through personal change and enhancement. Strong professional skills are the foundation for success, leading you to strengthen the core communication and interpersonal skills necessary to achieve excellence in business. The concepts from this course will become the basis of your increased ability to solve problems, relate well with others, and build individual effectiveness and personal accountability for results. Through personal assessments and feedback surveys, you will explore your own ability to be effective, learning where to focus your energies to have greater influence. You will also learn where you can act with confidence, helped by discovering where you and others see your strengths and areas for development.

102-150 Global Business **3 cr**

Provides students with a basic understanding of the global economy and how companies do business in it. Areas of study include trends in world trade and investment, economic relationships among nations, international finance and currency exchange, government regulations and tariffs, communications and language barriers, and national customs.

102-160 Business Law **3 cr**

Business Law is designed to help the student develop an understanding of the law and the relationship of the legal system to the business world. After consideration of the legal system, the course reviews contracts, sales and lease contracts, warranties, product liability, consumer law, bailments, creditors' rights, and bankruptcy.

102-188 Project Management **3 cr**

The learner applies the skills and tools necessary to design, implement, and evaluate formal projects. Each learner will demonstrate the application of the role of project management by developing a project proposal, using relevant software, working with project teams, sequencing tasks, charting progress, dealing with variations, budgets and resources, implementing a project, and assessing the outcome.

102-302 Salon Business Operations **2 cr**

This course provides a comprehensive study of salon management for the cosmetology student in areas of business management. Topics of this course include: an overview of salon management/ownership responsibilities, decision making in business, business planning, and financial management.
Corequisite(s): 502-305 Haircutting 3, 502-324 Salon Services 4

102-306 Salon Business & Mktg **1 cr**

This course provides marketing skills, salon management, and the operation of a salon/spa business. Students evaluate merchandising displays, improve retail profits, and investigate various advertising and marketing media. Students learn an overview of salon management/ownership responsibilities, decision making in business, promotion, and positive customer relationships.
Restricted to students admitted to the following program(s): Cosmetology

103 Computer Software

103-102 Microsoft Office Suite **2 cr**

The goal of this course is to provide an introduction to Microsoft Office Suite and how it is used in academic, personal, and business environments. The students will become familiar with the Office user interface and use it as they work with Word, PowerPoint, Excel, and Access. Navigate the Office interface by using tabs, ribbons, and groups.

104 Marketing & Merchandising Management

104-100 Marketing Technologies **3 cr**

Introduces students to the fundamentals of digital design and production. Students will learn how to design marketing tools, edit videos, edit audio, create basic webpages, basic photo editing and photography basics.

104-102 Marketing Principles **3 cr**

Marketing of products and services. Concentrates on product, price, place, promotion, market segmentation, target marketing, pricing, market research, physical distribution and distribution channels.

104-104 Sales Presentations **3 cr**

Acquaints the student with qualifications and personality types needed for selling. Analyzes the basic selling steps - prospecting, pre-approach, approach, presentation, handling concerns, closing and follow-up.

104-105 Marketing Research **3 cr**

To create greater awareness of the process of marketing research including surveys, focus panels, sampling procedures, and the general steps in doing marketing research. Marketing decisions and problem-solving skills will be improved. Micromarketing and databases are included.
Prerequisite(s): 104-102 Marketing Principles

104-108 Retail Management **3 cr**

This course will present practical information to prepare students for today's retail environment. Past practices are fully explored, as are the innovative concepts that have become part of the fashion retailer's world. Areas of study include social responsibility, purchasing domestically and off-shore, private labels and brands, pricing and inventory, customer service, visual merchandising, and management and control functions.

104-109 Social Media Mktg Strategy **3 cr**

Social media may seem spontaneous, but for successful organizations, it is not. This course emphasizes research, critical thinking, training, and profiling required in determining which social networks to use. After networks are determined, students plan campaign and general messages designed to better connect with audiences, deepen relationships, and drive profits. We use case studies and real world examples to learn from successes and failures.

104-110 Customer Relationship Mgmt **3 cr**

Explore customer service relationship management, a customer-centric business process used to organize, automate, and synchronize advertising, marketing, sales, support, and service functions across an organization. Develop skills to effectively implement a CRM strategy to build brand equity, maximize customer lifetime value and drive profitable revenue growth.
Prerequisite(s): 104-102 Marketing Principles and 104-104 Sales Presentations and 104-125 Advertising

104-111 Consumer Behavior **3 cr**

This course will address factors that influence what and why we buy. Understanding consumer behavior provides you with tools that enable you to make sure consumers will feel a need for your product, search for, and find the intended information about your product. Applying an understanding of consumer behavior will allow customers to evaluate your product as the best alternative, buy the product and remain loyal to their product.

104-112 Visual Design **4 cr**

Visual Design focuses on the foundations of print and digital productions that develops career and communications skills in graphic design, illustration, and print and digital media production. Students use Adobe Illustrator, Photoshop, InDesign, and Acrobat. Skills gained in this course prepare students to test for the Adobe Associate Certification.

104-114 E-commerce Sales **3 cr**

Examine the role of e-commerce in firm's marketing mix and the complementary roles that customer relationship management and direct marketing play in this sales environment. Business models underlying these electronic commerce applications are studied from both operational and strategic perspectives. Related issues of electronic payments and related issues of authentication, security, privacy, intellectual property right, and tax implications are included.

104-116 Sales Management **3 cr**

Focus on special topics in sales management to synthesize learning. This course allows students to demonstrate the advanced skills, processes, and practical experience gained to plan, construct, and deliver a professional sales presentation. Course will focus on these skills sets, leadership and the management of sales teams.
Prerequisite(s): 104-125 Advertising and 104-140 Business to Business Selling

104-118 Sales Mgmt Field Study **3 cr**

Focus on special topics in sales management to synthesize learning. This course allows students to demonstrate the advanced skills, processes, and practical experience gained to plan, construct, and deliver a professional sales presentation. Current and selected topics relating to sales techniques and markets will be explored in the rapidly changing world economy.
Prerequisite(s): 104-140 Business to Business Selling and (104-110 Customer Relationship Mgmt and 104-185 Negotiation Skills)

104-125 Advertising **3 cr**

Advertising consists of communication activities that inform potential consumers about goods, services, images or ideas to achieve a desired outcome. Elements of the Promotional Mix: advertising, personal selling, publicity, and sales promotion are covered in detail. The course includes an introduction of creative elements in advertising.
Prerequisite(s): 104-102 Marketing Principles

104-127 Digital Marketing Campaigns **3 cr**

Using knowledge gained from previous coursework, students individually run a 14-week digital media campaign for a fictitious business using a variety of popular social media platforms and digital outlets. Students learn strategies for posting content, days, times, acceptable attachments, citations, and more.
Prerequisite(s): 104-109 Social Media Mktg Strategy

104-140 Business to Business Selling **3 cr**

Apply Business to Business sales process using the SPIN (situation, problem, implication, and need payoff) method to large account sales, role play in a non-retailing, distribution channel environment.

104-148 Digital Design Web Building **3 cr**

Digital Design takes Visual Design one step further to hone design skills. It also focuses on the foundations of web design that teaches digital communication skills in the context of the professional web design, development, and management process. Students use HTML coding, Adobe Dreamweaver, Illustrator, Photoshop, and Adobe Firework. Skills gained in this course prepare students to test for the Adobe Associate Certification.
Prerequisite(s): 104-112 Visual Design

104-153 Digital Marketing Internship **1 cr**

Students apply knowledge gained throughout their courses in digital marketing and individually work with area businesses. Each student creates a digital marketing strategy for a business, executes the strategy, provides measurement and metrics, and assists in training how to successfully use digital platforms. Upon completion, each student creates a customized digital marketing policy for their specific business client.
Prerequisite(s): 104-127 Digital Marketing Campaigns
Corequisite(s): 104-184 Personal Branding-Digital Age
Restricted to students admitted to the following program(s): Digital Marketing

104-160 Event Planning & Marketing **3 cr**

This course will help you develop and understanding of the marketing concepts and theories that apply to entertainment, sports and event marketing (ESEP) industries. The areas that this course will cover include: promotions, sponsorship, proposals and development & implementation of an entertainment and/or sports marketing plan. Students will learn how to use ESEP as a strategic platform to create publicity and brand awareness.

104-161 Event Marketing **4 cr**

This course will help you develop and understanding of the marketing concepts and theories that apply to entertainment, sports and event marketing (ESEP) industries. The areas that this course will cover include: promotions, sponsorship, proposals and development & implementation of an entertainment and/or sports marketing plan. Students will learn how to use ESEP as a strategic platform to create publicity and brand awareness.

104-162 Mobile Marketing **3 cr**

Mobile internet usage continues to grow, and it has been predicted that it will overtake desktop internet usage in the next five years. Successful businesses need to understand the current mobile landscape and how to harness the power of mobile marketing to reach key target markets. This course examines the evolution of mobile, mobile marketing tactics, the mobile advertising ecosystem, and how mobile marketing fits into your overall digital media strategy. We investigate geo-marketing, localized marketing, designing for mobile media, mobile websites, mobile advertising, m-commerce and mobile spending, SMS and mobile apps.

104-163 Social Media Policies & Ethics **2 cr**

Technology is moving fast, but the basic concepts of ethics still play a prevalent role in marketing - traditional, digital, and mobile. Students learn ethical standards, how to evaluate online credibility, analyze social media influencers, responsible use of social media, slander, copyright, trademark, and applicable media laws.

104-164 Digital Video and Audio **4 cr**

Digital Design Broadcasting is project-based curriculum that develops career and communication skills in digital broadcasting production, using Adobe tools. This course curriculum develops four key skill areas: Project management and collaboration, design, video production and audio production using broadcasting tools. Students engage in skills to learn storytelling, capturing and editing video and audio, and finalizing content.
Prerequisite(s): 104-112 Visual Design

104-166 Enterprise Marketing & Mgmt **4 cr**

Hands-on application of concepts previously learned in the marketing program while participating in an actual on-campus business. Emphasis will be placed on the nine functional areas of marketing: product/service planning, promotion, purchasing, risk management, selling, distribution, financing, marketing information management, and pricing. Competencies learned in other courses will be used to run a school-based enterprise. Students research the market, determine the proper product mix, go to market to buy products to sell, and promote to CVTC students, staff, faculty, and community. Management skills will also be applied throughout the course. Teachers and students will work jointly with other programs to control inventory, market, and keep accurate records. This applied and integrated course will act as a go-between the theories taught in the classroom and real-life situations.
Prerequisite(s): 104-102 Marketing Principles and 104-104 Sales Presentations and 104-125 Advertising

104-169 Marketing Internship **1 cr**

Provides hands-on experience and exposure to the real-world of marketing and will also be an invaluable tool to assist in defining students' career goals and objectives. Set-up for one hour per week of class work and an average of 8 hours per week or 128 hours per semester of actual on-the-job training. Students will be expected to work with the instructor to secure acceptable internship stations.
Prerequisite(s): 104-160 Event Planning & Marketing or 104-161 Event Marketing
Corequisite(s): 104-182 Personal Branding
Restricted to students admitted to the following program(s): Marketing

104-174 Digital Marketing Analytics **2 cr**

Digital media is an effective business strategy, but knowing the financial impacts and who your customers are as a result of your efforts assists with increasing profits. Students explore the most effective strategies for evaluating captured data that determines consumer insights. The course explores how to answer key questions that influence digital campaigns, their impact on return on investment and other business decisions. Examine social media analytical tools and discover how to monitor feeds to find out what followers are saying about your brand. Students have the opportunity to earn official Google Analytics Certification.

104-182 Personal Branding **2 cr**

This course emphasizes the Professional Development Plan (PDP), with a strong personal career focus. Students will increase their self-understanding and set specific career goals. Students will create and update career credentials that will be necessary to compete in a competitive employment market. Students will prepare a professional career portfolio that will be a strong personal sales tool for their future. In addition, the course will take an in-depth review of the job search process outlining techniques and pathways to opportunities. Must have 4th semester standing.
Prerequisite(s): 104-160 Event Planning & Marketing or 104-161 Event Marketing
Corequisite(s): 104-169 Marketing Internship
Restricted to students admitted to the following program(s): Marketing

104-183 Marketing Strategy **3 cr**

The students will pull together all their learning from previous Marketing classes and apply it in a comprehensive and understandable manner. Taking a current business or starting a new business, the students in a semester-long project will work through the marketing mix, marketing research, pricing strategies, promotional strategies, organizational/management strategies, product strategies, services provided, place or distribution strategies, targeting customers, and other decisions in an extensive and inclusive project.
Prerequisite(s): 104-102 Marketing Principles and 104-105 Marketing Research and 104-125 Advertising

104-184 Personal Branding-Digital Age **2 cr**

Branding is a formula for business recognition. Applying this on a personal level is just as important. As marketers, it is crucial we develop and promote our own personal brand. The more we understand and the better we define our personal brand, the easier it is to become an authority in the field we're pursuing. Students in this course participate in exercises that help personal branding elements and prepare to compete as professionals in the workforce.
Prerequisite(s): 104-127 Digital Marketing Campaigns
Corequisite(s): 104-153 Digital Marketing Internship
Restricted to students admitted to the following program(s): Digital Marketing

104-185 Negotiation Skills **3 cr**

Students explore how current approaches to negotiation strategy and tactics are used, what negotiation entails, and types of negotiation relationships that exist. They will build skills in the process of negotiating business agreements within a global environment to fully partnered relationships and personal ones. The course explores the personal and behavioral characteristics of an effective negotiator.
Prerequisite(s): 104-102 Marketing Principles and 104-104 Sales Presentations

104-191 Service Excellence **3 cr**

Assume the role of a Customer Service Representative - designed to simulate many of the situations, problems, and challenges faced by all business professionals dealing with customers from call center representatives, sales associates to account managers and small business owners. Explore the skills, attitudes, and thinking patterns required to exceed customer expectations and build customer loyalty and a company competitive advantage. Develop the ability to lead and expand the customer service process, techniques for dealing with unhappy customers, build skills for analyzing customer needs and delivering service excellence. Create customer service excellence training materials for area business and non-profits.

104-301 Salon Marketing **2 cr**

Students learn the marketing skills involved in operating a salon/spa as a business. Students evaluate merchandising displays, improve retail profits, and investigate various advertising and marketing media. Students learn retail product knowledge, promotion, selling techniques, positive customer relationships, and prescribe professional retail products to the customer.
Prerequisite(s): 502-314 Chemical Services 2 and 502-322 Salon Services 2

106 Office Systems/Technology

106-100 Web Technologies 1 **1 cr**

This course provides students with a basic understanding of how different types of web tools are used in business. Social and business web tools will be explored.

106-101 Business Technology & Trends **2 cr**

This course provides students with exposure and/or experience in using a variety of technologies used in today's office. The content focuses on understanding these technologies and how they impact office employees.

106-102 Web Technologies 2 **1 cr**

This course introduces various tools used to create, design, and update web pages.
Prerequisite(s): 106-100 Web Technologies 1

106-105 Business Words at Work **3 cr**

The goal of this course is to develop students into successful communicators in the business office. The course will include intense drill and review of grammar, punctuation, proofreading, spelling, and capitalization. Students will properly format and compose a variety of business documents.
Prerequisite(s): 103-102 Microsoft Office Suite

106-107 Publications **1 cr**

This course introduces design principles related to layout, graphics, and fonts. These principles will be applied in the development of effective print and digital business publications.
Prerequisite(s): 103-102 Microsoft Office Suite

106-111 Exec Asst Prof Development **1 cr**

This course will provide students the opportunity to examine professionalism, business etiquette, and workplace issues.

106-112 Exec Asst Career Planning **1 cr**

This course is the third and final course in a series that will provide students the opportunity to explore various business support professional careers. Students will examine workplace issues, explore professional development opportunities, and evaluate educational and professional resources.
Prerequisite(s): 106-111 Exec Asst Prof Development

106-113 Customer Service Foundations **1 cr**

In this course, you will explain customer service, assess factors that impact customer service, and examine components of the customer service environment. This course is the first in a series of three courses that provides you with an opportunity to develop customer service skills.

106-114 Customer Communic Techniques **1 cr**

This course is the second in a series that provides you with the opportunity to develop customer service skills. In this course you will examine the relationship that exists between communication skills and quality customer service.

106-115 Customer Care Strategies **1 cr**

This course is the third and final course in a series that provides you with the opportunity to develop valuable customer service skills. In this course you will gain strategies for working with a diverse customer base, challenging customers, and service recovery.

106-116 Database **1 cr**

This course incorporates database skills including how to plan, create, and manage data. Students will apply software features to the successful completion of business-related projects and scenarios.
Prerequisite(s): 103-102 Microsoft Office Suite

106-119 eSkillbuilding **1 cr**

This course is designed for students who already possess correct keyboarding technique but need to improve their speed and accuracy. For hybrid delivery, the course will require a limited amount of on-campus attendance.
Prerequisite(s): (min score of ES on KYES or 103-103 Keying and Data Entry)

106-120 Business Technology Principles **3 cr**

Emphasis on understanding computer concepts, vocabulary, and the Windows operating system. Allows the student to explore different software applications of word processing, spreadsheet, database, and multimedia functions. Provides a solid foundation in using email, Internet Web browsing, and searching.

106-122 Document Processing **1 cr**

This course provides students with opportunities to learn how to use advanced word processing applications. Students will use advanced word-processing features to create forms, templates, long documents, merged documents, and tables.
Prerequisite(s): 103-102 Microsoft Office Suite

106-128 Business Words at Work 1 **1 cr**

This is the first course in a sequence that develops students into successful communicators in the business office. Students will develop proofreading skills, apply grammar skills, examine formats, and identify word usage errors in a variety of business documents.
Prerequisite(s): 103-102 Microsoft Office Suite

106-129 Business Words at Work 2 **1 cr**

This is the second course in a sequence that develops students into successful communicators in the business office. Students will apply proofreading and grammar skills as they analyze word usage errors and critique and edit a variety of business documents.
Prerequisite(s): 106-128 Business Words at Work 1

106-130 Business Words at Work 3 **1 cr**

This is the third course in a sequence that develops students into successful communicators in the business office. The course will include intense drill and review of proofreading, editing, and formatting. Students will use these skills to properly format and compose a variety of business documents.
Prerequisite(s): 106-129 Business Words at Work 2

106-132 Exploring Office Environments **2 cr**

This course introduces various aspects of administrative professional careers. Topics explored will include career expectations and responsibilities, employment opportunities, and career planning. Students will explore the role of Administrative Professionals in industries such as contact centers, educational institutions, government agencies, insurance companies, legal firms, manufacturing corporations, medical businesses and public safety organizations. Exploration of industries will take place during off-campus events and/or on-campus presentations.

106-135 Bus Support Prof. Internship 1 **1 cr**

Students will work closely with business professionals to develop career skills. The process will encourage professionalism and provide an opportunity for development of positive work habits. This supervised internship allows students to experience a job situation related to the diploma degree program and business support careers such as receptionist and office assistant.
Prerequisite(s): 106-122 Document Processing and 106-130 Business Words at Work 3 and 106-172 Microsoft Outlook

106-138 Administrative Prof Internship **2 cr**

Office Internship allows students to put into practices the knowledge and skills learned from program courses. Students will share an overview of their internship experience during an end-of-semester presentation.
Prerequisite(s): (106-101 Business Technology & Trends and 106-158 Meeting & Event Planning and 106-173 Web Technologies and 106-174 Business Software Solutions)
Corequisite(s): 106-175 Admin Professional Development
Restricted to students admitted to the following program(s): Executive Assistant

106-139 Business Presentations **1 cr**

This course provides students with an opportunity to learn and apply the skills needed to design and deliver professional business presentations.
Prerequisite(s): 103-102 Microsoft Office Suite

106-140 Office Procedures **3 cr**

This course provides an overview of general office skills and factors that influence work effectiveness. Students will gain knowledge in general office duties, management information systems, phone skills, process mail, records management, maintain inventory, arrange travel, bookkeeping, and financial reports and procedures. Students will determine factors that influence one's ability to work effectively and efficiently.

106-141 Computer Applications-Legal **3 cr**

This course provides the opportunity for the learner to develop the knowledge, skills, processes, and understanding of various types of software used in the law office, including word processing, spreadsheet, calendaring, timekeeping, and billing software.

106-142 Business Spreadsheet Applic **3 cr**

As a student in this course, you will learn beginning to advanced features of Microsoft Excel including those assessed in the Core Microsoft Office Specialist exam. You will create, edit, and format various business spreadsheets. Topics will include formulas and functions, charts and graphics, multiple-sheet workbooks, PivotTables, PivotCharts, and database features.

106-146 Quality Customer Service **2 cr**

This course will provide an overview of customer service. Students will learn how exceptional customer service contributes to the overall impact and success of a business. Communication techniques and problem-solving skills critical to providing quality customer service will be examined. Key concepts include understanding and avoiding barriers to good customer service, dealing with challenging customers, and retaining customers.

106-149 Expert Software Applications **3 cr**

Students will build on existing software skills to develop the expertise tested in the Microsoft Office Specialist expert exam for Word, Excel, and Access. Word topics include creating styles, templates, and macros; tables of contents, captions, and cross-references in multi-page documents; forms, charts, diagrams; and collaboration techniques. Excel topics include what-if analysis, pivot tables and macros; advanced logical and financial functions; collaboration techniques, and scenario manager. Access topics include advanced queries, forms, and reports; data access pages; and macros and switchboards.
Prerequisite(s): 106-122 Document Processing and 106-181 Business Information Mgmt and (106-142 Business Spreadsheet Applic or 106-125 Spreadsheets 2)

106-150 Office Procedures 1 **1 cr**

This course is the first in a series that provides students with the opportunity to develop the general office skills used by business support professionals. Students will develop phone skills, learn how to process mail, handle records, and perform basic bookkeeping tasks.

106-152 Job Search-Bus Support Prof 1 **1 cr**

This course is the first in a series that explores a broad range of job search techniques including exploring various business support professional careers, researching opportunities, compiling appropriate information for job applications, creating cover letters and resumes, and preparing for interviews. This course promotes overall understanding of the job search process.

106-154 Integrated Software Applic **2 cr**

Students will have an opportunity to incorporate the features of Microsoft Word, Excel, Access, and PowerPoint to solve realistic, challenging business problems. Integration of current technology with effective business documents will allow students to expand communications beyond traditional administrative functions.
Prerequisite(s): 106-122 Document Processing and 106-142 Business Spreadsheet Applic and 106-181 Business Information Mgmt and 106-164 Business Presentations & Publ or (106-139 Business Presentations and 106-107 Publications)

106-155 Job Search-Bus Support Prof 2 **1 cr**

This course is second in a series of two that looks at the job search. In this course you will prepare a portfolio for employment, examine your online presence, explore job offer techniques and factors that contribute to new job success.
Prerequisite(s): 106-152 Job Search-Bus Support Prof 1

106-156 Records Management **1 cr**

In this course you will explore records management, examine systems and guidelines that are in place that oversee records management programs and examine specific procedures used in the management of physical and electronic records.

106-160 Office Procedures 2 **1 cr**

This course is the second in a series that provides students with the opportunity to develop the general office skills used by business support professionals. Students will develop skills related to financial reports and procedures, office inventory, and research.

106-162 Legal Terminology **3 cr**

Emphasis is placed on developing an understanding of legal terminology through the study of law itself and on using legal terminology in many different ways. Legal terminology covers general law terms as well as specialized legal terminology. A sound knowledge of terminology is the key foundation for anyone considering a career in the legal or business world.

106-163 Computer Success **2 cr**

This course is for individuals with little-to-no computer experience. Here students will have an opportunity to gain knowledge in basic computer operations, terminology, hardware, and software. An emphasis will be placed on file/document management. The course will also provide a foundation in using email and the internet.

106-164 Business Presentations & Publ **3 cr**

This course introduces design principles related to layout, graphics, and fonts. These principles will be applied in the development of effective print and digital business presentations and publications.
Prerequisite(s): 103-102 Microsoft Office Suite

106-167 Office Procedures 3 **1 cr**

This course is the third and final course in a series that provides students with the opportunity to develop the general office skills used by business support professionals. Students will develop skills related to budgeting, arranging travel, preparing meeting minutes, and practicing community relations.

106-168 Bus Support Prof Internship 2 **1 cr**

During this course students will put into practice, at a business site, knowledge and skills learned from courses in the associate degree program. This supervised internship allows students to experience a job situation that is related to the associate degree program and business support professional careers such as administrative professional and executive assistant.
Prerequisite(s): 106-167 Office Procedures 3 and 106-169 Applied Software and (106-100 Web Technologies 1 and 106-102 Web Technologies 2 and 106-155 Job Search-Bus Support Prof 2 and 106-156 Records Management)

106-169 Applied Software **1 cr**

Students in this course will build on existing software skills to develop the expertise business support professionals use to perform various office tasks. Students will use software to complete business-related projects and scenarios.
Prerequisite(s): (106-124 Spreadsheets 1 and 106-125 Spreadsheets 2 or 102-109 Business Analytics) and 106-107 Publications and 106-116 Database and 106-122 Document Processing and 106-172 Microsoft Outlook and 106-139 Business Presentations

106-171 Adv Software Applications **3 cr**

Students will continue their work in Office 2010 by utilizing the intermediate to advanced features of Word, Excel, and Access. Real world projects will allow students to apply these skills to actual business situations.
Prerequisite(s): 103-102 Microsoft Office Suite

106-172 Microsoft Outlook **1 cr**

In this course students will utilize Microsoft Outlook to communicate by email, schedule appointments, and manage contact lists, tasks, and notes. Students will apply software features to the successful completion of business-related projects and scenarios.

106-173 Web Technologies **3 cr**

This course provides students with a basic understanding of various tools used to create web pages, wikis, and blogs. Other social and business web tools will be explored.

106-174 Business Software Solutions **3 cr**

Students will use previously learned software skills to successfully complete business-related problems and scenarios.
Prerequisite(s): 106-164 Business Presentations & Publ and 106-171 Adv Software Applications

106-175 Admin Professional Development **2 cr**

This course will examine aspects of expected business protocol/professionalism along with current trends and topics. This course will also provide students with an opportunity to refine job search materials and prepare for job interviews.
Prerequisite(s): 106-101 Business Technology & Trends and 106-158 Meeting & Event Planning and 106-173 Web Technologies and 106-174 Business Software Solutions
Corequisite(s): 106-138 Administrative Prof Internship
Restricted to students admitted to the following program(s): Executive Assistant

106-176 Google Tools **1 cr**

In this course students will explore various Google tools and how they are used in business.

106-177 Apps for Productivity **1 cr**

This course provides students with an understanding of how business apps can increase productivity and efficiencies within the business support profession. Students will use productivity apps to complete business-related tasks and scenarios used in an office setting.

106-178 Adobe Tools **1 cr**

This course will provide students the opportunity to create, edit, review, and protect PDF files using Adobe Acrobat.

106-179 Photo Editing **1 cr**

In this course students will learn basic photo editing techniques.

106-180 Executive Assistant Capstone **1 cr**

In this course students will apply concepts and skills learned in various program courses to complete tasks and scenarios related to actual business situations.
Prerequisite(s): (102-109 Business Analytics or 106-124 Spreadsheets 1 and 106-125 Spreadsheets 2) and (102-188 Project Management or 106-133 Project Planning and 106-158 Meeting & Event Planning) and 106-169 Applied Software and (106-100 Web Technologies 1 and 106-102 Web Technologies 2 and 106-107 Publications and 106-116 Database and 106-156 Records Management and 106-167 Office Procedures 3 and 106-176 Google Tools and 106-178 Adobe Tools and 106-179 Photo Editing)
Restricted to students admitted to the following program(s): Executive Assistant

106-181 Business Information Mgmt **3 cr**

The goal of this course is to expose learners to electronic information management systems. As a student in this course, you will learn beginning to advanced features of Microsoft Access. The projects in this class will give students an opportunity to manage information in a simulated business environment.

106-182 Legal Computing **2 cr**

In this course learners will develop skills using various computer applications required in a law office. Some of the skills learners will develop will be in timekeeping and billing, case management, docket control, electronic discovery, litigation support, and computer-assisted legal research.

106-188 Managing Office Finances **3 cr**

Students will learn fundamental accounting terminology and practices. They will analyze, document, and input business transactions in a manual and computerized accounting office environment.

110 Paralegal

110-101 Paralegal & Legal Ethic, Intro **3 cr**

An introduction to the legal profession, the courts, legal ethics, legal terminology, research, and the role of paralegals.
Restricted to students admitted to the following program(s): Paralegal, Paralegal Post-Baccalaureate

110-102 Civil Litigation I **3 cr**

The initial procedures associated with the preliminary stages of civil litigation, including pleadings, discovery, and motions.
Restricted to students admitted to the following program(s): Paralegal, Paralegal Post-Baccalaureate

110-103 Civil Litigation II **3 cr**

This course demonstrates the substantive law, process and procedure, and typical recurring tasks relating the post-pleadings stages of civil litigation. These include evidence, discovery (depositions, interrogatories, physical and mental exams, requests for admissions) methods of case resolution (judgment, settlement, dismissal, and alternative disputes, and requests for admissions) methods of case resolution (judgment, settlement, dismissal, and alternative dispute resolution) trial practice, post-trial and post-judgment matters, and appellate procedure.
Prerequisite(s): 110-102 Civil Litigation I and 110-104 Legal Research and (801-106 English Composition or 801-136 English Composition 1 or 801-219 English Composition 1 or min score of Y on BA or min score of Y on BS)
Restricted to students admitted to the following program(s): Paralegal, Paralegal Post-Baccalaureate

110-104 Legal Research **3 cr**

An application of legal research techniques, using traditional and computer-assisted resources.
Restricted to students admitted to the following program(s): Paralegal, Paralegal Post-Baccalaureate

110-105 Legal Writing **3 cr**

An advanced writing course concentrating on legal correspondence, forms, memoranda, and briefs.
Prerequisite(s): 110-102 Civil Litigation I and 110-104 Legal Research and (801-106 English Composition or 801-136 English Composition 1 or 801-219 English Composition 1 or min score of Y on BA or min score of Y on BS)
Restricted to students admitted to the following program(s): Paralegal, Paralegal Post-Baccalaureate, Paralegal Post-Baccalaureate

110-106 Family Law **3 cr**

Basic legal concepts in the area of family relations, including premarital agreements, parental rights, and divorce.
Prerequisite(s): 110-102 Civil Litigation I and 110-104 Legal Research and (801-106 English Composition or 801-136 English Composition 1 or 801-219 English Composition 1 or min score of Y on BA or min score of Y on BS)
Restricted to students admitted to the following program(s): Paralegal, Paralegal Post-Baccalaureate

110-107 Legal Aspects of Bus Organiz **3 cr**

Legal aspects involved in the formation, operation, and dissolution of the principal types of business organizations.
Prerequisite(s): 110-103 Civil Litigation II
Restricted to students admitted to the following program(s): Paralegal, Paralegal Post-Baccalaureate

110-110 Real Estate Law **3 cr**

Drafting real estate descriptions, listing contracts, offers to purchase, deeds, land contracts, mortgages, foreclosure pleadings, transfer tax returns, and leases.
Prerequisite(s): (110-102 Civil Litigation I and 110-104 Legal Research) and (801-136 English Composition 1 or 801-106 English Composition or 801-219 English Composition 1 or min score of Y on BA or min score of Y on BS)
Restricted to students admitted to the following program(s): Paralegal, Paralegal Post-Baccalaureate

110-114 Administration of Estates **3 cr**

Basic legal concepts of intestacy and testacy, including probate forms and procedures.
Prerequisite(s): 110-103 Civil Litigation II or (min score of Y on BA or min score of Y on BS)
Restricted to students admitted to the following program(s): Paralegal, Paralegal Post-Baccalaureate

110-115 Administrative Law **3 cr**

The creation and interpretation of administrative rules and regulations as well as the adjudication of administrative law cases, including workers' compensation and Social Security disability laws.
Prerequisite(s): (110-102 Civil Litigation I or min score of Y on BA or min score of Y on BS) and (110-104 Legal Research or min score of Y on BA or min score of Y on BS) and (801-136 English Composition 1 or 801-219 English Composition 1 or min score of Y on BA or min score of Y on BS)
Restricted to students admitted to the following program(s): Paralegal, Paralegal Post-Baccalaureate

110-122 Debtor and Creditor Relations **3 cr**

A review of legal issues involving debtors, creditors, and third parties.
Prerequisite(s): 110-102 Civil Litigation I and 110-104 Legal Research and (801-136 English Composition 1 or 801-106 English Composition or 801-219 English Composition 1 or min score of Y on BA or min score of Y on BS)
Restricted to students admitted to the following program(s): Paralegal, Paralegal Post-Baccalaureate

110-142 Paralegal Internship **3 cr**

Students gain practical experience working in a legal environment under the supervision of an attorney or other qualified professional for a minimum of 144 hours. In addition, students meet one hour weekly to discuss legal office experiences and ethical considerations, learn effective job search techniques, and develop professional image.
Prerequisite(s): 110-101 Paralegal & Legal Ethic, Intro and (110-114 Administration of Estates or 110-168 Criminal Law-Paralegal) and (110-103 Civil Litigation II and 110-105 Legal Writing)
Restricted to students admitted to the following program(s): Paralegal, Paralegal Post-Baccalaureate

110-143 Paralegal Field Study **3 cr**

Students engage in a field study of a specialty legal practice area in lieu of completing a paralegal internship. Students work with an advisor to identify an area of legal specialty study and to plan an appropriate field study. The field study includes reading textbooks and legal literature, interviewing practicing attorneys and paralegals working in the specialty area, and preparing a report and presentation.
Prerequisite(s): 110-101 Paralegal & Legal Ethic, Intro and (110-114 Administration of Estates or 110-168 Criminal Law-Paralegal) and (110-103 Civil Litigation II and 110-105 Legal Writing)
Restricted to students admitted to the following program(s): Paralegal, Paralegal Post-Baccalaureate

110-147 Immigration Law **3 cr**

This course introduces the student to the basic law and legal concepts involved in the immigration and naturalization process. This includes entry of aliens into the United States and permanent residence based upon an offer of employment or family relationship. Additional areas of law discussed in this course will include problems individuals face with political asylum, deportation and exclusion.
Prerequisite(s): 110-102 Civil Litigation I and 110-104 Legal Research and (801-136 English Composition 1 or 801-106 English Composition or 801-219 English Composition 1) or (min score of Y on BA or min score of Y on BS)
Restricted to students admitted to the following program(s): Paralegal, Paralegal Post-Baccalaureate

110-160 Employment Law **3 cr**

Analysis of federal and state laws governing employment relationships.
Prerequisite(s): (110-102 Civil Litigation I or min score of Y on BA or min score of Y on BS) and (110-104 Legal Research or min score of Y on BA or min score of Y on BS) and (801-136 English Composition 1 or 801-219 English Composition 1 or min score of Y on BA or min score of Y on BS)
Restricted to students admitted to the following program(s): Paralegal, Paralegal Post-Baccalaureate

110-168 Criminal Law-Paralegal **3 cr**

Analysis of federal and state laws governing employment relationships.
Prerequisite(s): 110-103 Civil Litigation II or (min score of Y on BA or min score of Y on BS)
Restricted to students admitted to the following program(s): Paralegal, Paralegal Post-Baccalaureate

110-170 Contract Law **3 cr**

A course involving the formation, interpretation, and drafting of contracts.
Prerequisite(s): 110-102 Civil Litigation I and 110-104 Legal Research and (801-136 English Composition 1 or 801-106 English Composition or 801-219 English Composition 1 or min score of Y on BS or min score of Y on BA)
Restricted to students admitted to the following program(s): Paralegal, Paralegal Post-Baccalaureate

110-180 Elder Law **3 cr**

Elder Law is an introduction to the topics in the law affecting older persons. Topics covered include family rights and responsibilities, health care decision-making, financing health care (Medicare, Medicaid); housing, guardianship and alternatives to guardianship, income maintenance (social security benefits, pensions, etc.), elder abuse and ethical issues in dealing with older clients.
Prerequisite(s): 110-102 Civil Litigation I and 110-104 Legal Research and (801-136 English Composition 1 or 801-106 English Composition or 801-219 English Composition 1 or min score of Y on BA or min score of Y on BS)
Restricted to students admitted to the following program(s): Paralegal, Paralegal Post-Baccalaureate

116 Human Resources

116-110 Employee Benefits **3 cr**

In this course we will examine the wide range of employee benefit programs available today. We will study the types of benefits required by law, the discretionary benefits that employers may offer, the employee services available, and the ever dynamic retirement programs offered today. An emphasis will be on health insurance plans, cafeteria and wellness plans, and a functional approach to employee benefit planning. A course outcome will be evaluating and assessing a company sponsored benefit plan.
Prerequisite(s): 116-193 Human Resources, Intro or 102-111 Human Resources, Intro to or 196-193 Human Resources, Intro

116-111 Performance Mgt & Total Reward **3 cr**

In this course we will learn the skills set for managing employee performance including coaching, disciplining, and evaluating employees. In addition, the course will review employee rewards and compensation related to the determination of employee wages, incentives, and benefits. Specific topics covered include job evaluation systems, strategic compensation plans, payroll and individual and group incentive plans.

116-112 Training & Development **3 cr**

This course provides an in-depth analysis of training and development in organizations. Students will examine organizational training strategy and trends, analyze the systematic approach to training (needs assessment, design and development, implementation, and evaluation), and explore employee development issues including onboarding, career development, and succession planning. Applying instructional design techniques and adult learning theories, students will develop training plans, create lesson plans, and present training sessions. Students will also create an individual targeted development plan.

116-113 Human Resource Law **3 cr**

In this course you will learn legal principles affecting the management of human resources. The course addresses legalities in hiring, retention, and termination practices; discrimination issues; sexual and other forms of harassment; Americans with Disability Act compliance; leave of absence laws; wage hour laws; and labor relations matters, as well as other relevant employment-related legal issues. This course will help you proactively recognize legal problems and the impact of employment-related decisions on employees, managers, and the employer organization. An emphasis will be placed on general understanding of the major federal and state employment laws.
Prerequisite(s): 116-193 Human Resources, Intro or 102-111 Human Resources, Intro to or 196-193 Human Resources, Intro

116-114 Recruitment & Selection **3 cr**

In this course we will learn the importance of human capital and its impact on organizational success. Recruiting and interviewing employees are critical for an employer's success. Topic areas covered include recruitment, selection, career development, legal issues associated with selecting employees, and roles in the selection process. An emphasis will be on strategies associated with selecting and developing of employees for organizational success. Students will be required to participate in mock interviews and networking opportunities.
Prerequisite(s): 116-193 Human Resources, Intro or 102-111 Human Resources, Intro to or 196-193 Human Resources, Intro

116-115 Human Resources Capstone **2 cr**

Students will apply concepts learned in various human resources program courses to case studies and actual business situations (internship) to evidence their understanding of integration of human resources functions within organizations. Students will discuss importance of total rewards, analyze employee relations and leadership effectiveness, and practice key soft skills (conflict management, relationship building, and effective communication) related to Human Resources Program outcomes. Deliverables include both written work and demonstration through role plays. Students will also prepare a personal career development plan which will include a job search plan, a final resume, a sample cover letter, and a LinkedIn profile. Due to related content and discussion, this course must be taken concurrently with the Human Resources Internship (116-128).
Prerequisite(s): 116-114 Recruitment & Selection and (116-116 Employee Relations or 116-127 Employee Relations) and (116-110 Employee Benefits and 116-112 Training & Development and 116-113 Human Resource Law and 116-128 Human Resources Internship and 116-138 Safety, Security and Risk)

116-116 Employee Relations **3 cr**

Today's workforce places high expectations on their Human Resource department from communication and advice on confidential matters to recommending specific benefit options. In addition, employers expect the Human Resource department to be highly professional and competent in good employee relations. As a result, this course covers the following topics; customer service techniques, professional etiquette, confidentiality requirements, different work cultures and generational attitudes, and career paths in the Human Resource field.
Prerequisite(s): 116-193 Human Resources, Intro

116-128 Human Resources Internship **1 cr**

This course culminates the Human Resources program with a minimum of 72 hours of HR work experience. Students put into practice previously learned concepts in the Human Resource field. Emphasis is placed on desirable interpersonal and professional work experience in the Human Resource field. Students are required to complete appropriate documents to ensure a successful work experience.
Prerequisite(s): 116-114 Recruitment & Selection and (116-116 Employee Relations or 116-127 Employee Relations) and (116-110 Employee Benefits and 116-112 Training & Development and 116-113 Human Resource Law and 116-138 Safety, Security and Risk)
Restricted to students admitted to the following program(s): Human Resources

116-138 Safety, Security and Risk **3 cr**

Human Resources is often responsible for assisting in the management of safety, health, and security risks in the workplace. In this course, students will learn skills necessary to identify and manage these workplace risks. Topics areas covered include: occupational injury and illness prevention and response programs (hazard analysis, OSHA compliance, and worker's compensation), policies and procedures to minimize loss and liability (workplace violence, substance abuse, and emergency preparedness), business continuity planning and privacy and data security issues.

116-190 Leadership Development **3 cr**

Learner applies the skills and tools necessary to fulfill his/her role as a modern leader. Each learner will demonstrate the application of evaluating leadership effectiveness and organization requirements, individual and group motivation strategies, implementing mission and goals, ethical behavior, personal leadership style and adaptation, impacts of power, facilitating employee development, coaching, managing change, and effective conflict resolution.

116-193 Human Resources, Intro **3 cr**

In this course, students will examine the role of human resources and goals of human resource management in today's organizations. Students will learn and apply skills related to the various functions within human resources management including equal employment opportunity and diversity, recruitment and selection, compensation and benefits, performance management, and labor relations. Student will explore the importance and impact of these human resource functions on the overall strategy of organizations.

145 Small Business

145-103 Entrepreneurial Ideas **3 cr**

In this course, students will generate ideas for entrepreneurial businesses, analyze market conditions, and determine the opportunities that exist for an entrepreneurial venture. Students will learn about lean startups and determine the product-market fit/viability of the business idea. Ideas in this course will be used and refined in the capstone course.

145-104 Entrepreneurial Communication **2 cr**

In this course, students will develop the soft skills that are essential for entrepreneurs: networking, formal and informal presentations, professional business writing, and listening. Students will establish a mentor relationship which will be maintained for the remainder of the program. Students will identify local resources available for entrepreneurs. Ideas in this course will be used and refined in the capstone course.

145-106 Entrepreneurial Management **3 cr**

In this course, students will learn leadership concepts and develop basic management/operational policies. Students will learn how to develop sound operational practices. Students will examine human resource functions such as hiring, managing, and motivating employees. Ideas in this course will be used and refined in the capstone course.

145-108 Entrepreneurial Marketing **2 cr**

In this course, students will gain insights essential for marketing an entrepreneurial venture utilizing innovative and financially responsible techniques. Students will analyze marketing strategies used by a variety of successful entrepreneurs. Ideas in this course will be used and refined in the capstone course.
Prerequisite(s): 104-102 Marketing Principles

145-109 Entrepreneurial Capstone **3 cr**

In this course, students will compile knowledge of entrepreneurial program classes and will build a business plan. Students will develop plans for the marketing, management, operational, and financial sections of a business plan. Students will walk away with a ready-to-implement plan to launch their ventures.

150 IT Networking and Security

150-105 IT Career Prep **2 cr**

This course is specifically designed to aid learners in finding, obtaining, and keeping employment. Learners in this course will research current technologies, explore possible careers, develop job search materials, manage their online presence, practice interviewing skills, and examine negotiating strategies. Students will gain or improve these critical skills through discussions, research projects, written assignments, mock-interviews, guest speakers, roleplay, real-world scenarios, presentations, and industry tours.

150-110 Help Desk and User Support **1 cr**

This course will provide an overview of the functions, services, and management of IT help desks. Learners shall explore a variety of topics including effective communication, model value-added end-user training sessions, troubleshooting techniques, issue tracking software, and help desk documentation. Learners will gain or improve upon the skills via discussions, research projects, written assignments, roleplay, and presentations.

150-111 IT Software for Networking **2 cr**

This course provides hands-on training utilizing industry standard computer software to document network design, layout and architecture; to effectively manage an information technology project; and to manage the data critical to the management of information technology assets.

150-118 Scripting **2 cr**

This course will introduce students to Linux/Unix and Windows shell scripts, Python and PowerShell scripting and how scripting is used for administration and management of network servers and clients. Students will learn to access file systems, data stores, the Windows registry as well as skills needed to install, manage and troubleshoot enterprise networks.

150-132 Virtualized Systems **2 cr**

This course will provide the learner with the skills necessary to install, configure, manage and troubleshoot enterprise OS and application virtualization and storage management using VMware server virtualization products including VMware vSphere, which consists of VMware ESXi/ESX and VMware vCenter Server.
Prerequisite(s): 150-118 Scripting and 150-166 Microsoft Server 2 and 150-177 Linux 2

150-134 Network Infrastructure Cnspts **2 cr**

This course provides students an overview of the fundamentals of the infrastructure elements that support computer networks and devices. Learners will study the basics of network cable installation and termination, meter usage, direct current (DC) circuits, alternating current (AC) Circuits, AC wiring, uninterruptible power supply (UPS) selection, power conditioning, power management, power over Ethernet (POE), and digital logic. The course will be delivered via a combination of reading and homework assignments, lecture/discussion sessions, and hands-on laboratory exercises. Emphasis will be placed on safety and compliance with industry standards.
Corequisite(s): 150-111 IT Software for Networking, 804-133 Math & Logic
Restricted to students admitted to the following program(s): IT Network Support Associate, IT-Network Specialist

150-143 Computer Hardware **3 cr**

This course addresses the fundamentals of personal computer (PC) workstations hardware systems and the integration of operating systems used by business and industry into those systems. Course topics include: integration, configuration, troubleshooting, and documentation of PC subsystems including motherboard architecture, form factors, power supplies, IDE devices and removable storage, system memory, multimedia devices, I/O devices, BIOS and boot process, and video/display fundamentals, Additionally, the integration, configuration, troubleshooting, and documentation of commonly used (current and legacy) operating systems, as they relate to system hardware, is explored.
Prerequisite(s): 150-123 IT Networking Concepts and (605-134 Network Infrastructure Cncpts or 150-134 Network Infrastructure Cnspts or 605-102 Electronic Concepts)

150-150 CCNA 1: Intro to Networks **3 cr**

This is the first of four courses leading to the Cisco Certified Network Associate (CCNA) Routing and Switching certification. This course will introduce the architecture, structure, functions, components, and models of the Internet and other computer networks. The principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operations are introduced to provide a foundation for successive Cisco Networking Academy courses. By the end of this course, students will be able to build simple LANs, perform basic configurations for routers and switches, and implement IP addressing schemes.

Restricted to students admitted to the following program(s): Cisco Networking Academy, IT Network Support Associate, IT-Network Specialist, Ntwrk Hdw Support Specialist

150-151 CCNA 2: Routing & Switch Essen **3 cr**

This is the second of four courses leading to the Cisco Certified Network Associate (CCNA) Routing and Switching certification. This course describes the architecture, components, and operations of routers and switches in a small network. Students learn how to configure a router and a switch for basic functionality. By the end of this course, students will be able to configure and troubleshoot routers and switches and resolve common issues with RIPv1, RIPv2, single-area and multi-area OSPF, virtual LANs, and inter-VLAN routing in both IPv4 and IPv6 networks. Students who successfully complete this course and CCNA 1: Introduction to Networks will have also completed the recommended preparation for the Cisco Certified Entry Networking Technician (CCNET) certification exam. Students are expected to take the CCENT Exam at the conclusion of this course.

Prerequisite(s): 150-150 CCNA 1: Intro to Networks

150-153 CCNA 3: Scaling Networks **2 cr**

This is the third of four courses leading to the Cisco Certified Network Associate (CCNA) Routing and Switching certification. This course describes the architecture, components, and operations of routers and switches in larger and more complex inter-networks. Emphasis is placed on network security, redundancy, and troubleshooting. By the end of this course, students will be able to configure routers and switches for advanced network functionality with technologies including Rapid Spanning Tree Protocol, EtherChannel, First Hop Redundancy Protocols HSRP and GLBP, and routing protocols OSPF and EIGRP in both IPv4 and IPv6 networks. Students will also develop the knowledge and skills needed to manage Cisco IOS image files and licensing.

Prerequisite(s): 150-151 CCNA 2: Routing & Switch Essen

150-154 CCNA 4: Connecting Networks **2 cr**

This is the last of four courses leading to the Cisco Certified Network Associate (CCNA) Routing and Switching certification. This course discusses the WAN technologies and network services required by converged applications in a complex network. The course enables students to understand the selection criteria of network devices and WAN technologies to meet network requirements. Students learn how to configure and troubleshoot network devices and resolve common issues with data link protocols. Students will also develop the knowledge and skills needed to implement IPSec and virtual private network (VPN) operations in a complex network. Students who successfully complete this course and its three predecessors will have also completed the recommended preparation for the Cisco Certified Network Associate (CCNA) Routing and Switching certification exam. Students are expected to take the CCNA Routing and Switching Exam at the conclusion of this course.

Prerequisite(s): 150-153 CCNA 3: Scaling Networks

150-155 Network Operations Mgmt **2 cr**

This course will build on the skills acquired in previous classes and will explore advanced topics such as Microsoft's System Center Configuration Manager (SCCM), Active Directory Domain Services, Internet Information Services, Windows Server Update Services, Windows Deployment Services and Microsoft SQL Services, software update deployment, end point protection, operating system deployment, compliance management, cloud computing and email services. Implementing group policies and administering SCCM and Exchange using PowerShell will also be covered.

Prerequisite(s): 150-118 Scripting and 150-166 Microsoft Server 2 and 150-177 Linux 2

150-163 Microsoft Client Operating Sys **2 cr**

This course develops the knowledge, skills, process, and understanding of client OS installation, configuration, administration and troubleshooting; network connectivity; standard system maintenance procedures; and command line introduction.

150-165 Microsoft Server 1 **2 cr**

This course allows the learner to acquire necessary skills for supporting and configuring Windows Server including installation and configuration of an Active Directory Domain. Account administration, group policy management and core server roles and features are identified while preparing for MCSA Exam 70-410.

Prerequisite(s): 150-163 Microsoft Client Operating Sys

150-166 Microsoft Server 2 **2 cr**

This course allow the learner to acquire necessary skills for administering Windows Server environment including Active Directory management, Group Policy, backup and recovery, PowerShell remoting and infrastructure management, and security concepts while preparing for MCSA Exam 70-411.

Prerequisite(s): 150-165 Microsoft Windows Network Admn

150-170 IT Service Center **2 cr**

This course will provide the learner with practical application and competency in core computer hardware and operating system maintenance and support. Practical experience will be developed in the repair, configuration, upgrading, diagnostics, and preventative maintenance of consumer PC's. These functions will be performed in the program's internal Computer Service Center. Additionally, learners will perform the various administrative tasks associated with the Service Center's operation such as product workflow tracking, inventory control and pre and post repair customer support.
Prerequisite(s): 150-143 Computer Hardware or 605-123 Computer Hardware or 605-109 Industrial Computer Technology

150-176 Linux 1 **2 cr**

This course focuses on guiding the learner to develop a fundamental understand of Linux based Operating Systems (OS) and their primary components. Topics covered include: performing custom Linux installations; partition management; using GRUB to control boot behaviors and default targets; usage of common Command Line Interface (CLI) commands; user and group creation, file system navigation, architecture, and security; network customizations; package installers and managers; backup and recovery systems, and basic troubleshooting processes.

150-177 Linux 2 **2 cr**

This course focuses on guiding the learner to refine previously acquired Linux knowledge and use it to implement advanced Linux features, functions, and troubleshooting processes. Topics covered include: Process management; Common network services setup and configuration (DNS, DHCP, Firewall, etc.); Advanced partition management using LVM, alternate file system formats, implementations of RAID, quota management, as well as file system encryption; LDAP authentication; and local system security. Throughout all areas, troubleshooting, security, and recovery will be discussed. This course, along with Linux 1 and Scripting, prepares the learner with the knowledge to take the CompTIA Linux+ and the Linux Foundation's - Linux System Administration certifications.
Prerequisite(s): 150-176 Linux 1

150-182 Network Specialist Internship **2 cr**

The purpose of this course is for the learner to obtain real-world experience by working within an IT Department for a local business or organization. Students must first obtain permission from the Director of Network Specialist Internship before enrolling in this course. The Director will coordinate the student's internship with the IT Administrator/Manager of a local business or local organization. Compensation for the internship is to be negotiated between the student and the employer.
Restricted to students admitted to the following program(s): IT-Network Specialist

150-183 Wireless Networking **2 cr**

This course in an introduction to wireless local area networks (WLANs). Students will develop, implement, and troubleshoot wireless networks. Students will acquire competencies in wireless technologies, security, and network design practices. Course topics include WLAN setup and troubleshooting. 802.11a, 802.11b, 802.11g, and 802.11n technologies, products and solutions, site surveys, resilient WLAN design, installation and configuration, WLAN security, and vendor interoperability strategies. The course will be delivered via a combination of lecture/discussion and hands-on application laboratory.
Prerequisite(s): 150-134 Network Infrastructure Cnspts

150-184 IT Security Fundamentals **2 cr**

In the capstone course of the Information Technology Network Specialist Program, the student will demonstrate the collected knowledge, skills, and techniques acquired in the program of study through a variety of assessment methods. Students will demonstrate problem solving, critical thinking, research techniques, and technical writing. Information Technology ethics, professional responsibility, and team dynamics will be emphasized to help round out the student's education.
Prerequisite(s): 150-153 CCNA 3: Scaling Networks

150-185 IT Networking Capstone **2 cr**

In the capstone course of the Information Technology Network Specialist Program, the student will demonstrate the collected knowledge, skills, and techniques acquired in the program of study through a variety of assessment methods. Students will demonstrate problem solving, critical thinking, research techniques, and technical writing. Information Technology ethics, professional responsibility, and team dynamics will be emphasized to help round out the student's education.
Prerequisite(s): 150-118 Scripting and 150-153 CCNA 3: Scaling Networks and 150-166 Microsoft Server 2 and 150-177 Linux 2

152 IT Application Development & Web

152-101 Programming Fundamentals **3 cr**

This course is designed to be a student's second programming course. It provides an in-depth look into fundamental computer programming concepts including: variables, input-processing-output, if- then-else logic, for loops, while loops, array processing, and functions. With an emphasis on hands-on activities, students use pseudocode and flowcharting tools to build problem-solving skills. Programming concepts and problem-solving skills are synergized and applied through the completion of a variety of programming exercises using the JavaScript programming language. The course will culminate with a Final Project lab.
Prerequisite(s): 152-113 Introduction to Programming and 152-107 Web 1-HTML & CSS
Restricted to students admitted to the following program(s): IT - Software Dev Specialist, IT 3D Simulations, IT Java Programmer, IT Microsoft .NET Programmer, IT Mobile iOS, IT Web Development Specialist, IT-Mobile Developer, IT-Software Developer, IT-User Support Technician

152-102 IT-Software Dev Exploration **1 cr**

This is an introductory course that explores programming concepts, examines career possibilities for graduates of the Software Developer degree, and looks at current and future trends of the information technology industry.

152-103 .NET Application Development **3 cr**

This course trains students in Microsoft's Visual Studio IDE and the.NET Framework. This course takes an in-depth look at the Visual Basic or C# language using SQL Server Compact for database interaction, develop subs and functions, and develop objects and classes. The course will culminate with a Final Project lab.
Prerequisite(s): 152-101 Programming Fundamentals

152-105 .NET-ASP **3 cr**

This course is designed to explore the realm of ASP.NET, which is the Microsoft's Web application development tool for .NET. The student will interact with .NET's various frameworks; Web API, MVC, and Web Forms to develop interactive Web applications. The course will culminate with a Final Project lab.
Prerequisite(s): 152-103 .NET Application Development

152-106 Computer Concepts **2 cr**

This course provides a strong foundation in computer concepts and operating systems directed at Programmer Analyst/Web Developer professionals. Through lecture, demonstration, and lab exercises, students learn operating system concepts, file management, various DOS commands, UNIX commands, and Windows. An online offering of this course is available.
Restricted to students admitted to the following program(s): IT-Mobile Developer, IT-Software Developer

152-107 Web 1-HTML & CSS **3 cr**

This course is designed to be a "first course" in web site development. Students work with a text editor and a browser to develop web pages from scratch using HTML and Cascading Style Sheets (CSS) to control color, layout, text, and images. Responsive design principles and accessibility standards are incorporated to ensure web sites are usable and professional-looking. Tables, forms, audio, and video components are included to add variety and pizzazz.
Restricted to students admitted to the following program(s): IT - Software Dev Specialist, IT Web Development Specialist, IT-Mobile Developer, IT-Software Developer, IT-User Support Technician

152-108 Web 2 - Client Side **3 cr**

This course will include a study of creating dynamic web applications using client-side JavaScript and JavaScript libraries.
Prerequisite(s): 152-101 Programming Fundamentals and (152-107 Web 1-HTML & CSS or 107-107 Web Programming I)

152-112 Business Intelligence **3 cr**

This course introduces students to the concepts of Business Intelligence (BI) with an emphasis on report development. Beginning with an overview of basic business practices, students develop an appreciation for the importance of good business decision-making strategies - and the information systems that can impact those strategies. As business intelligence concepts (report-writing, knowledge management, data warehouse, data mining, Olap) are investigated, students apply those concepts through hands-on activities with one or more industry-standard BI/reporting tools (SQL Server Reporting Tools and/or Crystal Reports).
Prerequisite(s): 152-132 Database 1

152-113 Introduction to Programming **1 cr**

This course is designed to be a student's first programming course. It provides an introduction to fundamental computer programming concepts including: variables, input-processing-output, if-then-else logic, for loops, and while loops. With an emphasis on hands-on activities, students use pseudocode and flowcharting tools to build problem-solving skills. This course will also examine IT professional soft skills as well as explore IT-Software Developer careers.

152-114 iOS Development **3 cr**

This course trains students to create simple iOS applications using the Xcode development tool. Students will start learning the basics of the Swift programming language and apply the Cocoa Touch and Foundation environments in creating simple iOS applications.
Prerequisite(s): 152-142 Object Oriented Programming

152-116 Professional iOS Development **3 cr**

Learn advanced iOS programming techniques including Core Data, Key-Value Observing, Gestures, and more. Participate in discussions, demonstrations, presentations, and projects to develop advanced iOS development skills. Explore issues surrounding performance and memory in iOS applications. Build advanced iOS applications that apply Cocoa Touch, Sprite Kit, Game Kit, Scene Kit, and other iOS technologies.
Prerequisite(s): 152-115 Advanced iOS Development

152-126 Agile Programming **3 cr**

This course trains students in Agile software development. Agile Development consists of the planning, implementation, and delivery phases of a software product using coding standards, testing and continuous integration. This course will use aspects of Scrum to facilitate and manage student projects using an agile approach. This involves planning and estimating, charting progress, testing, programming/developing intermediate solutions, and delivering the final product. Software design patterns will be explained and utilized in this course.
Prerequisite(s): 152-129 Java Web Programming

152-129 Java Web Programming **3 cr**

This course trains students to develop Web applications using the Java programming language. The focus of the class is on the use of advanced Java features necessary for real world business applications. The class will review and extend knowledge of Java; namely, input/output, exception classes and packages, collections, JDBC, Servlets Java Server Pages, and MVC.
Prerequisite(s): 152-142 Object Oriented Programming

152-132 Database 1 **3 cr**

This course is designed as a first database course, this course introduces students to the concepts of relational database management and beginning SQL. Students explore the history and evolution of databases and investigate current database usage in industry. This relational model is examined and utilized as students' practice creating, populating, manipulating, and querying multi-table relational databases using the SQLite database.
Restricted to students admitted to the following program(s): IT - Software Dev Specialist, IT Database Specialist, IT Database Specialist, IT Mobile Android, IT-Mobile Developer, IT-Software Developer, IT-User Support Technician

152-133 Visual Basic.NET, Intro to **1 cr**

Develop visual basic programs by creating the user interface (a window), setting properties, and writing the program code. Programs will involve forms, controls, menus, dialogs, and drop-and-drag events. Some programming experience helpful.

152-136 Database 2 **3 cr**

This course provides a more in-depth study of SQL (Structured Query Language) and introduces database design. Students practice with database design methodologies, tools, and techniques via hands-on activities covering SQL, data normalization, Entity-Relationship Diagrams, and relational data modeling. Tools like Dia and MySQL are used to give students practical experience with the creation, documentation, and testing of relational databases.
Prerequisite(s): 152-132 Database 1

152-142 Object Oriented Programming **3 cr**

This course is designed for an in-depth study of object-oriented programming using Java. Students will learn the fundamental principles of modularity and abstraction. Basic programming skills, such as decision-making, looping, string manipulation, and arrays are expected to be used throughout the course. The second half of the course explores advanced topics, such as inheritance, polymorphism, and data structures.
Prerequisite(s): 152-101 Programming Fundamentals

152-143 InformationTechnology Capstone **2 cr**

This course brings skills learned in previous IT Programmer/Analyst courses together in a team-based business environment. Student teams will work through the life-cycle of a programming application project that covers requirements gathering through the production phase. Students will bring various technologies together to complete their applications in an efficient manner.
Prerequisite(s): (152-125 Information Architecture or 107-125 Information Architecture) and (152-132 Database 1 or 107-132 Database Applic Development) and (152-105 .NET-ASP or 152-142 Object Oriented Programming or 107-142 Java Programming I or 152-164 Database-Driven Web Design/Dev or 107-164 Data Mining Concepts)

152-148 Digital Design Web Building **3 cr**

Digital Design takes Visual Design one step further to hone design skills. It also focuses on the foundations of web design that teaches digital communication skills in the context of the professional web design, development, and management process. Students use HTML coding, Adobe Dreamweaver, Illustrator, Photoshop, and Adobe Firework. Skills gained in this course prepare students to test for the Adobe Associate Certification.
Prerequisite(s): 104-112 Visual Design

152-151 Android Development **3 cr**

This course trains students to develop mobile applications on the Android mobile platform. This course will provide an overview of the mobile application landscape and will then quickly focus on one of the latest mobile technologies to develop the applications themselves. Participate in discussions, demonstrations, presentations, and projects to develop Android development skills.
Prerequisite(s): 152-129 Java Web Programming

152-159 Web 3 - Interactive Media **3 cr**

This course trains students in the creation animation for the Web using HTML 5's Canvas element, CSS3, and JavaScript. The jQuery library will be explored to create dynamic Web content and animation of Web page components.
Prerequisite(s): 152-108 Web 2 - JavaScript

152-160 Object-Oriented C Programming **3 cr**

Provides an introduction to computer programming logic using the C-based Object Oriented Programming language. This course will give the student a basic understanding of problem-solving skills using a computer programming language. Practical experience with programming concepts will be gained through demonstration and hands-on lab exercises with input/output, data types, arrays, and control structures.
Prerequisite(s): 152-101 Programming Fundamentals

152-161 Game Development 1 **3 cr**

This course provides an introductory look into 3D game development using AutoDesk's 3DS Max and the Unity3D game engine. Students will use and expend their programming knowledge using Microsoft's C# and/or JavaScript languages to create interactive worlds.
Prerequisite(s): 152-142 Object Oriented Programming

152-164 Web 4 - Server-Side **3 cr**

This course trains students in server-side web development using PHP. The learner will get hands-on experience in the PHP environment with database applications using PHP, a relational database, sessions, cookies, string-handling, and other related topics.
Prerequisite(s): 152-108 Web 2 - JavaScript and (152-132 Database 1 or 107-132 Database Applic Development)

152-165 3D Modeling 2 **3 cr**

This intermediate course provides a more in-depth, hands-on investigation of 3D modeling including an introduction to character modeling. The topics of lighting, camera views, and animation will be further explored. This course will also introduce particle systems to simulate real world physical events such as water effects and weather, rigid body and soft body dynamics.
Prerequisite(s): 152-161 Game Development 1

152-166 IT Developer Capstone **3 cr**

This course culminates and assesses the students experience in the Information Technology – Software Developer program. This advanced course provides further hands-on experience in application development. Students will work in small groups to create an application. Students will be required to use project management techniques during the development process.
Prerequisite(s): 152-126 Agile Prog w Design Patterns
Restricted to students admitted to the following program(s): 3D Game/Sim Programming 2, IT-Mobile Developer, IT-Software Developer

152-168 Mobile Web Applications **3 cr**

This course will continue to build on the skills practiced in the Web Multimedia course. This course will focus on creating more powerful and entertaining web applications as well as design and development of mobile web applications using HTML 5, CSS3, and jQuery. Prerequisite(s): 152-159 Web Multimedia

196 Supervision & Leadership Development

196-129 Trends in Leadership **3 cr**

This course will take look at current trends in organizational leadership. Students will have the opportunity to investigate creative ways to effectively lead today's workforce and create a motivating atmosphere for employees to strive in.

196-138 Creativity and Innovation **1 cr**

This course is designed to inspire innate creativity to help launch major projects or untangle difficult situations. It focuses on providing fresh insight and new perspective on even the most routine elements of any job and to view problem solving as a creative opportunity. The use of creativity to provide a competitive edge leading to needed change and increased productivity is covered as well as techniques that help with idea generation and innovative solutions to problems.

196-142 Leading Change **3 cr**

The need for organizations to be able to change and adapt is coming in ever-increasing intervals. Leaders not only need to be able to embrace change, they need to be able to inspire their employees to embrace change. This course looks at how leaders can adapt a more positive attitude toward the change process and bring their employees into the fold to create a change-ready department.

196-155 Communication in Leadership **3 cr**

The majority of problems that occur in organizations today are a result of some breakdown in communication. It is vitally important for leaders to be able to effectively communicate in the workplace. This course looks at the leader's communication role in building collaborative relationships, managing overall communication, and effective work team communication.

196-160 Employee Hiring & Development **3 cr**

This course examines the process of recruiting, hiring, and developing employees in our workforce. In addition, the employee orientation process will be studied. Lastly, this course will look at labor issues that can arise in our organizations.

196-163 Personal Skills for Leaders **3 cr**

Employers across the board are demanding the graduates have "soft skills"; the ability to interact and relate to both internal and external customers. In this course many personal aspects of leadership will be discussed. The student will learn about topics such as time management, conflict resolution, creativity, and stress management. This course will provide practical application for students to put into use immediately in the workplace.

196-167 Leadership Capstone **2 cr**

Students apply their knowledge to develop a portfolio that demonstrates their competence in key areas of quality, effective leadership skills, human resource policies and procedures, and supervisory management functions to achieve organizational objectives.
Prerequisite(s): 102-113 Business Ethics and 102-133 Leadership for Bus Excellence and 102-188 Project Management and 116-193 Human Resources, Intro and 196-142 Leading Change and 196-155 Communication in Leadership and 196-160 Employee Hiring & Development and 196-163 Personal Skills for Leaders and 196-168 Organizational Development and (196-129 Trends in Leadership and 196-180 Process Management)
Restricted to students admitted to the following program(s): Organizational Leadership

196-168 Organizational Development **3 cr**

In this course the student will focus on the different managerial aspects of organizational development, including methods for diagnosing organizational issues and deigning intervention plans. In addition, the planning and control functions of management will be studied.

196-180 Process Management **3 cr**

The need for organization to be able to change and adapt is coming in ever-increasing intervals. Leaders not only need to be able to embrace change, they need to be able to inspire their employees to embrace change. This course looks at how leaders can adapt a more positive attitude toward the change process and bring their employees into the fold to create a change-ready department.

196-191 Supervision **3 cr**

The learner applies the skills and tools necessary to perform the functions of a frontline leader. Each learner will demonstrate the application of strategies and transition to a contemporary supervisory role including day-to-day operations, analysis, delegation, controlling, staffing, leadership, problem-solving, team skills, motivation, and training. Prerequisite is not required when course is delivered via the Internet.

307 Early Childhood Education

307-108 ECE: Early Language & Literacy **3 cr**

This course explores strategies to encourage the development of early language and literacy knowledge and skill building in children birth to 8 years of age. Learners will investigate the components of literacy including; literacy and a source of enjoyment, vocabulary and oral language, phonological awareness, knowledge of print, letters and words, comprehension and an understanding of books and other texts. Theories and philosophies regarding children's language and literacy development will be addressed. Dual language learning will be examined within the context of developmentally appropriate practices. Assessment tools for early language and literacy acquisition will be reviewed.
Restricted to students admitted to the following program(s): Child Care Services, Early Childhood Education

307-110 ECE: Soc S, Art & Music **3 cr**

This 3-credit course will focus on beginning level curriculum development in the specific integrated content areas of social studies, art, music, & movement (SSAMM).
Restricted to students admitted to the following program(s): Child Care Services, Early Childhood Education

307-112 ECE: STEM **3 cr**

This 3-credit course will focus on beginning level curriculum development in the specific integrated content areas of science, technology, engineering and mathematics.
Restricted to students admitted to the following program(s): Child Care Services, Early Childhood Education

307-148 ECE: Foundations of ECE **3 cr**

This 3-credit course introduces you to the early childhood profession. Course competencies include: explore the concepts of diversity, cultural responsiveness, and anti-bias as it relates to early childhood education, investigate the history of early childhood education, examine regulatory requirements for early childhood education programs in WI, summarize types of early childhood education settings, identify the components of a quality early childhood education program, summarize responsibilities of early childhood education professionals, explore early childhood curriculum models and examine the critical role of play as it relates to developmentally appropriate practice.
Restricted to students admitted to the following program(s): Child Care Services, Early Childhood Education

307-151 ECE: Infant & Toddler Dev **3 cr**

In this 3-credit course you will study infant and toddler development as it applies to an early childhood education setting. Course competencies include: integrate strategies that support diversity, cultural responsiveness, and anti-bias perspectives; analyze development of infants and toddlers (conception to thirty-six months); correlate prenatal and postnatal conditions with development; summarize child development theories; analyze the role of heredity and the environment; examine culturally and developmentally appropriate environments for infants and toddlers, examine the role of brain development in early learning (conception through thirty-six months); examine caregiving routines as curriculum; and examine developmental and environmental assessment strategies for infants and toddlers.

Restricted to students admitted to the following program(s): Child Care Services, Early Childhood Education

307-166 ECE: Curriculum Planning **3 cr**

This course examines the components of curriculum planning in early childhood education. Course competencies include: integrate strategies that support diversity and anti-bias perspectives; examine the critical role of play; establish a developmentally appropriate environment; examine caregiving routines as curriculum; develop activity plans that promote child development and learning; develop unit plans that promote child development and learning; analyze early childhood curriculum models.

Restricted to students admitted to the following program(s): Child Care Services, Early Childhood Education

307-167 ECE: Hlth Safety & Nutrition **3 cr**

This 3-credit course 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, cultural responsiveness, and anti-bias perspectives; examine governmental regulations and professional standards as they apply to health, safety, and nutrition; plan a safe early childhood environment; plan a healthy early childhood environment; plan nutritionally sound menus; examine child abuse and neglect issues and mandates; describe Sudden Infant Death Syndrome (SIDS) risk reduction strategies, describe strategies to prevent the occurrence of Shaken Baby Syndrome (SBS); incorporate health, safety, and nutrition concepts into the children's curriculum.

Corequisite(s): 307-174 ECE: Introductory Practicum

Restricted to students admitted to the following program(s): Child Care Services, Early Childhood Education

307-174 ECE: Introductory Practicum **3 cr**

In this 3-credit practicum course you will learn about and apply the course competencies in an actual early childhood setting. You will explore the standards for quality early childhood education, demonstrate professional behaviors, and meet the requirements for training in the Wisconsin Model Early Learning Standards.
Corequisite(s): 307-167 ECE: Hlth Safety & Nutrition
Restricted to students admitted to the following program(s): Child Care Services, Early Childhood Education

307-175 ECE: Preschool Practicum **3 cr**

This course will apply as the capstone course in The Registry Preschool Credential. You will be placed or working in an early childhood setting with 3-5 year old children and create a portfolio that prepares you for The Registry commission. In this course you will be implementing regulations and standards for quality early childhood education, applying knowledge of child development and positive guidance, utilizing observation and assessment techniques, and assessing developmentally appropriate environments for preschoolers.
Prerequisite(s): 307-174 ECE: Introductory Practicum
Restricted to students admitted to the following program(s): Early Childhood Education

307-177 ECE: Intermediate Practicum **3 cr**

In this 3-credit course you will be implementing regulations and standards for quality early childhood education, applying knowledge of child development and positive guidance, utilizing observation and assessment techniques, and assessing developmentally appropriate environments for children.
Prerequisite(s): 307-174 ECE: Introductory Practicum
Restricted to students admitted to the following program(s): Child Care Services, Early Childhood Education

307-178 ECE: Art Music & Lang Arts **3 cr**

This course will focus 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; analyze caregiving routines as curriculum; create developmentally appropriate language, literature, and literacy activities; create developmentally appropriate art activities; create developmentally appropriate music and movement activities.
Restricted to students admitted to the following program(s): Child Care Services, Early Childhood Education

307-179 ECE: Child Development **3 cr**

This 3-credit course examines child development within the context of the early childhood education setting. Course competencies include: integrate strategies that support diversity, cultural responsiveness, and anti-bias perspectives; analyze social, cultural, and economic influences on child development; summarize child development theories; analyze development of children ages three through five; analyze development of children ages five through eight; relate child development research findings to teaching practice; analyze the role of heredity and the environment; examine the role of brain development in early learning (ages 3-8); examine developmental and environmental assessment strategies for children ages 3-8.

Restricted to students admitted to the following program(s): Child Care Services, Early Childhood Education

307-187 ECE: Children w Diff Abilities **3 cr**

This 3-credit course focuses on the child with differing abilities in an early childhood education setting. Course competencies include: integrate strategies that support diversity, cultural responsiveness, and anti-bias perspectives; promote inclusive programs for young children; apply legal and ethical requirements including, but not limited to, ADA and IDEA; examine the consultation process to embed intervention in natural based settings; differentiate between typical and exceptional development; analyze the differing abilities of children with physical, cognitive, health/medical, communication, and/or behavioral/emotional disorders; identify community and professional resources; interpret an individual educational plan (IEP/IFSP) for children with developmental differences; adapt curriculum to meet the needs of children with developmental differences; examine strategies for cultivating partnerships with families who have children with developmental differences.

Restricted to students admitted to the following program(s): Child Care Services, Early Childhood Education

307-188 ECE: Guiding Child Behavior **3 cr**

This 3-credit course examines positive strategies to guide children's behavior in the early childhood education setting. Course competencies include: integrate strategies that support diversity, cultural responsiveness, and anti-bias perspectives; analyze techniques for and effects of strong relationship-building with children and families; identify positive and proactive guidance principles and techniques to support children; analyze environmental influences on child behavior; identify strategies that support children's active engagement in the learning environment; identify strategies that proactively teach emotional literacy and regulation techniques; identify strategies that proactively teach friendship skills; identify strategies that proactively teach children calming, relaxation, and problem-solving techniques; utilize observation and assessment techniques to assess and interpret behavior; create a behavior support plan based on a functional behavior assessment; create a guidance philosophy. This course meets the requirements of the "24 hour Wisconsin" Pyramid Model training.

Restricted to students admitted to the following program(s): Child Care Services, Early Childhood Education

307-192 ECE: Practicum 2 **3 cr**

In this practicum course you will learn about and apply the course competencies in an actual child care setting. The course competencies include: identify children's growth and development; maintain the standards for quality early childhood education; practice strategies that support diversity and anti-bias perspectives; implement student teacher-developed activity plans; identify the elements of a developmentally appropriate environment; implement positive guidance strategies; demonstrate professional behaviors; utilize caregiving routines as curriculum; utilize positive interpersonal skills with children; utilize positive interpersonal skills with adults.

Prerequisite(s): 307-174 ECE: Introductory Practicum or 307-138 Early Childhood Practicum I

Restricted to students admitted to the following program(s): Child Care Services, Early Childhood Education

307-194 ECE: Math Science & Soc St **3 cr**

This course will focus on beginning level curriculum development in the specific content areas of math, science, and social studies. Course competencies include: integrate strategies that support diversity and anti-bias perspectives; examine the critical role of play; establish a developmentally appropriate environment; develop activity plans that promote child development and learning; create developmentally appropriate science activities; create developmentally appropriate math activities; create developmentally appropriate social studies activities.

Restricted to students admitted to the following program(s): Child Care Services, Early Childhood Education

307-195 ECE: Family & Community Rel **3 cr**

In this 3-credit course you will examine the role of relationships with family and community in early childhood education. Course competencies include: implement strategies that support diversity, cultural responsiveness, and anti-bias perspectives when working with families and community; analyze contemporary family patterns and trends; identify strategies to strengthen and support families; explore effective communication strategies; discover strategies for developing respectful and reciprocal relationships with families; analyze strategies to promote family engagement in early childhood education programs; explore a variety of formats for meeting with families in their contexts; advocate for children and families; and explore community resources that provide a range of services for children and families.

Restricted to students admitted to the following program(s): Child Care Services, Early Childhood Education

307-197 ECE: Practicum 3 **3 cr**

In this practicum course you will learn about and apply the course competencies in an actual child care setting. The course competencies include: assess children's growth and development; implement the standards for quality early childhood education; integrate strategies that support diversity and anti-bias perspectives; build meaningful curriculum; provide a developmentally appropriate environment; facilitate positive guidance strategies; evaluate one's own professional behaviors and practices; lead caregiving routines as curriculum; utilize positive interpersonal skills with children; utilize positive interpersonal skills with adults.

Prerequisite(s): 307-192 ECE: Practicum 2 or 307-139 Early Childhood Practicum 2

Restricted to students admitted to the following program(s): Child Care Services, Early Childhood Education

307-198 ECE: Admin an ECE Program **3 cr**

This course focuses on the administration of an early childhood education program. Course competencies include: integrate strategies that support diversity and anti-bias perspectives; analyze the components of an ECE facility; design an ECE program; analyze the aspects of personnel supervision; outline financial components of an ECE program; apply laws and regulations related to an ECE facility; advocate for the early childhood profession.

Restricted to students admitted to the following program(s): Child Care Services, Early Childhood Education

307-199 ECE: Advanced Practicum **3 cr**

In this final 3-credit practicum course you will demonstrate competence in supporting child development through observation, assessment and implementation of teaching strategies as you work in and learn about and apply the course competencies in an actual early childhood setting. You will demonstrate a high level of skill in fostering relationships with children, families and early childhood professionals, and use skills learned in a lead teacher role to develop a career plan to transition from student to early childhood education professional.
Prerequisite(s): 307-177 ECE: Intermediate Practicum
Restricted to students admitted to the following program(s): Early Childhood Education

316 Culinary Arts

316-101 Food Theory **3 cr**

Food science principles applied to professional culinary food preparation. Units include professional kitchen operation, recipe terminology, and cooking techniques for various food categories.
Restricted to students admitted to the following program(s): Basic Cooking Skills, Culinary Management

316-102 Intro to Culinary Arts **5 cr**

Provides practical experience applying food science principles in food preparation, analysis, and evaluation of preparation techniques.
Restricted to students admitted to the following program(s): Basic Cooking Skills, Culinary Management

316-105 Food Safety & Sanitation **2 cr**

Applies sanitary, safety, and legal principles to practices in the foodservice industry. Successful completion of the course enables students to take a national sanitation certification examination.
Restricted to students admitted to the following program(s): Basic Cooking Skills, Culinary Management

316-107 Beverage Management **2 cr**

Introduces the management, responsible service, and sales of beverages. The areas of planning, equipping, staffing, product knowledge and purchasing, inventory management, marketing, and legal regulations are included. The Responsible Beverage Server portion fulfills Wisconsin Statutes which requires new applicants/bartenders/operators to complete training before a license is issued.
Restricted to students admitted to the following program(s): Basic Cooking Skills, Culinary Management

316-111 Advanced Culinary Arts **5 cr**

In the Advanced Culinary Arts course, you will utilize the cooking techniques and concepts you learned in previous courses, as well as, developing new techniques. You will develop skills with meat and fish identification and fabrication and explore international cuisines such as Asian, European, and American Regional Cuisines through regional menus and techniques.

Prerequisite(s): 316-101 Food Theory and 316-102 Intro to Culinary Arts and 316-105 Food Safety & Sanitation

316-112 Garde Manger **3 cr**

In Garde Manger you will be introduced to advanced culinary techniques that are unique to the cold kitchen. Skills will be developed through hands on participation in fresh sausage crafting, smoking and curing of meat and seafood, hot and cold hors 'd oeuvres, appetizers, salads, cheese making and buffet presentations.

Restricted to students admitted to the following program(s): Culinary Management

316-114 Purchasing & Receiving **2 cr**

You will examines standards and specifications of food purchasing with emphasis on quality, grading, optimal pricing, and ordering requirements. You will explore these concepts through situational problems and develop skills to be successful in the culinary industry.

Restricted to students admitted to the following program(s): Culinary Management

316-116 Menu Design & Development **2 cr**

This course will discuss the various design and styles of menus. Topics will include menu design, menu engineering, copy writing, and pricing. During this course students will have the opportunity to plan a restaurant concept which includes, site selection, demographic analysis, branding and menu construction.

Restricted to students admitted to the following program(s): Culinary Management

316-121 Restaurant Operations BOH **3 cr**

This course will build upon the skills and knowledge you have developed during your first year in the Culinary Program. Throughout this course you will apply advanced culinary techniques in the operation of a restaurant open to the public as well as developing new skills and understanding in banquets and catering, restaurant concept design, kitchen management, and human resource management. During this course your class will have the opportunity to develop a restaurant concept to be implemented in the next semester.

Prerequisite(s): 316-111 Advanced Culinary Arts

316-130 Nutrition **2 cr**

Basic nutritional principles are applied to responsible food preparation in the food service industry. Recipe analysis, modification, and menu planning for clientele are discussed.

Restricted to students admitted to the following program(s): Culinary Management

316-132 Cost Control **2 cr**

Analysis of the factors affecting food and beverage cost control. Purchasing, receiving, preparation, storage, and inventory practices are examined.
Restricted to students admitted to the following program(s): Culinary Management

316-134 Restaurant Operations FOH **3 cr**

Create a positive and memorable experience for your guests. Examine how the dining room professional is responsible for maintaining standards of service, training of dining room staff, motivating and monitoring staff to ensure customers' expectations are being exceeded. This course covers general rules of local and international service types, how to handle reservations, functions and procedures for dining room staff, and using current point-of-sale technology. Also included are sales techniques for service personnel including menu knowledge, suggestive selling and banquets.
Prerequisite(s): 316-121 Restaurant Operations BOH

316-136 Culinary Arts Internship **2 cr**

The Culinary Arts Internship will immerse you into the culinary industry and allow you to continue to develop and hone your skills at an approved internship site. While on your internship you will work with a site mentor who will provide performance feedback and assist you with meeting your educational goals. During your internship you will create and maintain a portfolio of your experience.
Prerequisite(s): 316-102 Intro to Culinary Arts and 316-105 Food Safety & Sanitation
Restricted to students admitted to the following program(s): Culinary Management

401 Air Conditioning, Refrigeration, & Heating

401-302 Basic Refrig & Air Cond **4 cr**

Students learn the fundamental principles of the refrigeration circuit. A special effort is made to correlate the fundamental theories and principles to the actual practices that are used in the refrigeration and air conditioning industry.
Prerequisite(s): 401-351 Basic Electricity HVACR
Corequisite(s): 401-303 Applic of Refrig & Air Cond

401-303 Applic of Refrig & Air Cond **4 cr**

The operation and maintenance of domestic and commercial refrigeration and air conditioning systems is the main emphasis of this course. Students learn to work with all the tools and equipment needed to operate a refrigeration and air conditioning system.
Corequisite(s): 401-302 Basic Refrig & Air Cond

401-304 Refrig Sys Install & Service **4 cr**

Students learn the techniques to install, test, maintain, and troubleshoot residential and commercial refrigeration systems. Students will have the benefit of learning in a well-equipped lab that provides experience on both residential and commercial refrigeration systems.
Prerequisite(s): 401-303 Applic of Refrig & Air Cond
Corequisite(s): 401-305 Air Cond Sys Install & Service

401-351 Basic Electricity HVACR **2 cr**

Electric principles, controls, motors, schematics, and systems are applied as they relate to refrigeration, air conditioning, and heating systems. Note: This course requires the purchase of a tool kit for approximately $500.

404 Automobile - Mechanical

404-303 Elec Cir Trblsh & Adv Body Sys **2 cr**

Students will develop the skills needed to read and apply technical information, specifications, and strategy based diagnostic procedures for use in electrical circuit/systems troubleshooting. Classroom instruction and hands-on training are provided on how to use electrical wiring diagrams, component locators, and basic testing tools (such as jumpers, test lights, and DVOMs) to identify and isolate 'open,' 'short' and 'high resistance' faults in automotive lighting and accessory system circuits. Specific advanced body electrical systems diagnosis and service includes passive restraint and air bag systems, conventional and electronic instrumentation, and cruise control systems. 'Scan' tool diagnostics on newer vehicles are covered as they relate to these systems.
Corequisite(s): 404-333 Auto Elec, Eng & Body Elec Sys
Restricted to students admitted to the following program(s): Automotive Maintenance Tech.

404-306 Brake Sys & Engine Repair **5 cr**

This course is based on ASE/NATEF competencies for brake system (80 hours) and engine mechanical repair (80 hours). Students can develop the knowledge needed to apply the technical information, specifications, and repair procedures used in brake, engine mechanical, and cooling system service. Competencies include the skills needed to safely and correctly use tools and equipment to service disc brakes, drum brakes, drum and motor machining, power brakes, rear-wheel disc brakes and cooling systems (flushing, cylinder head/valve train systems, including timing belts and chains, short-block assemblies and lubrication systems). Videotapes are used to individualize the instruction of equipment operation.
Prerequisite(s): 404-303 Elec Cir Trblsh & Adv Body Sys and 404-333 Auto Elec, Eng & Body Elec Sys
Corequisite(s): 404-307 Antilock Brk & Eng Mech Diag

404-307 Antilock Brk & Eng Mech Diag **2 cr**

This course is based on ASE/NATEF competencies for ABS (40 hours) and engine mechanical diagnosis (40 hours). Students can develop the knowledge needed to apply the technical information, specifications, and repair procedures used in ABS and diagnosing engine mechanical problems.
Prerequisite(s): 404-303 Elec Cir Trblsh & Adv Body Sys and 404-333 Auto Elec, Eng & Body Elec Sys
Corequisite(s): 404-306 Brake Sys & Engine Repair

404-321 Steering Susp & Manual Drv Trn **5 cr**

This course is based on ASE/NATEF competencies and includes 100 hours of suspension, steering, and wheel alignment, along with 60 hours of drivetrains. Students can develop the knowledge needed to read and apply technical information, specifications, and repair procedures used in chassis and drivetrain servicing. Competencies include the skills needed to safely use tools and equipment to diagnose and repair MacPherson strut, short and long arm, and sport utility/light truck suspension systems; power and manual steering systems, including rack and pinion; tires and wheels; wheel bearings; 4X4 hubs and axles; four-wheel alignment with up-to-date computerized equipment; clutches; manual transmissions; differentials; constant velocity and cardan universal joints; and related drivetrain components.
Corequisite(s): 404-353 Info Sys & Rel Drive Train
Restricted to students admitted to the following program(s): Automotive Maintenance Tech.

404-333 Auto Elec, Eng & Body Elec Sys **5 cr**

A course of study designed to provide the student with an understanding of electrical fundamentals, including electrical/electronic terminology, electrical components, circuits, measurements, and Ohm's Law relationships. Lab work involves basic, series, and parallel circuit analysis using digital volt-ohmmeters. Automotive body electrical systems (lighting, safety, and powered accessory) circuits are studied with related lab work involving locating/replacing circuit components, lamp replacement, headlight aiming, and circuit repair. Engine electrical systems (battery, starting, charging, and cooling fan circuit) coverage includes testing with specialized VAT and AVR equipment. Practice in applying wiring diagram interpretation and circuit troubleshooting skills will continue with customer supplied vehicles.
Corequisite(s): 404-303 Elec Cir Trblsh & Adv Body Sys
Restricted to students admitted to the following program(s): Automotive Maintenance Tech.

404-334 Auto Elec & Computer Systems **2 cr**

This course covers basic electronic components and circuits leading to an understanding of automotive computer system operation. Fundamentals of electronics, semiconductor materials, diodes, zener diodes, transistors, analog and digital signals, computer memory, and processor inputs and outputs will be related to basic computer operation. Specific instructions for locating diagnostic resources, vehicle data access, fault code interpretation, and diagnostic strategy will be related to General Motors, Chrysler, and Ford OBD I (On Board Diagnostics-first generation) engine control systems. Second generation On Board Diagnostics (OBD II) system function and testing will include generic as well as manufacturer specific scan tool use and testing procedures.
Prerequisite(s): 404-303 Elec Cir Trblsh & Adv Body Sys and 404-333 Auto Elec, Eng & Body Elec Sys
Corequisite(s): 404-340 Engine Performance

404-335 Automotive Fundamentals **1 cr**

A course of study designed to provide the student with an overview of the automotive program along with shop equipment and safety. Computer-based SP2 online safety training will be utilized. Also included is instruction on hand & power tool operation, fastener identification, vehicle lifting procedures, ASE certification criteria, career exploration, and history of the automobile industry. This course is web-enhanced. Some content will be delivered and available via the internet.
Restricted to students admitted to the following program(s): Automotive Maintenance Tech., Automotive Technician

404-336 Basic Vehicle Maintenance **3 cr**

A course of study designed to provide the student with the skills necessary to perform vehicle maintenance operations such as oil changes, chassis lubrication, tire rotations and inspections. Students will inspect chassis and brake systems, perform safety inspections, maintenance light reset procedures, and retrieve OBD II DTCs. This course is web-enhanced. Some content will be delivered and available via the internet.
Prerequisite(s): 404-335 Automotive Fundamentals
Corequisite(s): 404-337 Automotive Electricity 1, 404-339 Automotive Brake Systems, 404-351 Auto Engine Performance 1

404-337 Automotive Electricity 1 **2 cr**

A course of study designed to provide the student with the skills needed to understand electrical fundamentals, including electrical/electronic terminology, electrical components, circuits, measurements, and Ohm's Law relationships. Classroom instruction and hands-on training are provided on how to use electrical wiring diagrams, component locators, and basic testing using industry standard tools to identify and isolate 'open', 'short' and 'high resistance' faults in automotive electrical system circuits. Automotive electrical circuits are studied with related lab work involving locating/replacing circuit components, wire & terminal repair using industry-approved techniques; battery diagnosis, testing & replacement; and electrical cooling fan diagnosis.
Restricted to students admitted to the following program(s): Auto Collision Rpr & Ref Tech, Automotive Maintenance Tech., Automotive Technician

404-338 Automotive Electricity 2 **3 cr**

A course of study designed to provide the student with the skills needed to read and apply technical information, specifications, and strategy based diagnostic procedures for use in troubleshooting chassis electrical systems: starting, charging, instrument panel, lighting, powered accessories, and relay controlled circuits. Chassis electrical systems coverage includes testing with industry standard testing equipment. This course is web-enhanced. Some content will be delivered and available via the internet.
Prerequisite(s): 404-336 Basic Vehicle Maintenance and 404-337 Automotive Electricity 1 and 404-339 Automotive Brake Systems and 404-351 Auto Engine Performance 1
Corequisite(s): 404-350 Auto Steering & Suspension Sys, 404-352 Auto Engine Performance 2, 404-355 Automotive Computer Systems

404-339 Automotive Brake Systems **4 cr**

A course of study designed to provide the student with the skills needed to diagnose, service and repair foundation brake systems found on cars and light-duty trucks using industry standard equipment. This course is web-enhanced. Some content will be delivered and available via the internet.
Prerequisite(s): 404-335 Automotive Fundamentals
Corequisite(s): 404-336 Basic Vehicle Maintenance, 404-337 Automotive Electricity 1, 404-351 Auto Engine Performance 1

404-340 Engine Performance **5 cr**

Engine performance competencies are covered for diagnosis and repair of distributor (DI) and distributorless (EI) ignition systems. Ignition system primary circuit testing will be related to no start/hard start-fault diagnosis. Ignition system secondary testing will utilize engine analyzer oscilloscope patterns to verify system performance. Basic air/fuel delivery system testing will also be related to no start/hard start-fault diagnosis. Pressure and volume tests will be used to verify fuel pump operation. Students will be able to safely remove and replace in-tank fuel pumps. Both throttle body and port fuel injection system testing will include computer system On-Board Diagnostics accessed with a 'scan' tool as well as specialized equipment for testing and analyzing fuel injectors. Fuel system service will include filter replacement, as well as throttle valve, intake manifold, and injector cleaning. Practice in applying servicing, diagnostic, and repair skills will continue with customer supplied vehicles.
Prerequisite(s): 404-303 Elec Cir Trblsh & Adv Body Sys and 404-333 Auto Elec, Eng & Body Elec Sys
Corequisite(s): 404-334 Auto Elec & Computer Systems

404-350 Auto Steering & Suspension Sys **4 cr**

A course of study designed to provide the student with the skills needed to diagnose, service and repair suspension systems found on cars and light-duty trucks using industry standard equipment, with an emphasis on component identification, inspection, diagnosis & replacement. This course is web-enhanced. Some content will be delivered and available via the internet.
Prerequisite(s): 404-336 Basic Vehicle Maintenance and 404-337 Automotive Electricity 1 and 404-339 Automotive Brake Systems and 404-351 Auto Engine Performance 1
Corequisite(s): 404-338 Automotive Electricity 2, 404-352 Auto Engine Performance 2, 404-355 Automotive Computer Systems

404-351 Auto Engine Performance 1 **3 cr**

A course of study designed to provide the student with the skills needed to explain how an internal combustion engine operates and develops horsepower and torque. Students will disassemble an internal combustion engine, identify & measure components, reassemble engine using industry standard tools and procedures, and perform basic engine tests. This course is web-enhanced. Some content will be delivered and available via the internet.
Prerequisite(s): 404-335 Automotive Fundamentals
Corequisite(s): 404-336 Basic Vehicle Maintenance, 404-337 Automotive Electricity 1, 404-339 Automotive Brake Systems

404-352 Auto Engine Performance 2 **3 cr**

A course of study designed to provide the student with the skills needed to diagnose, service & repair automotive ignition and fuel systems. The student will learn maintenance and troubleshooting and procedures for late-model vehicles using various types of engine, fuel pressure and exhaust diagnostic equipment. This course is web-enhanced. Some content will be delivered via the internet.
Prerequisite(s): 404-336 Basic Vehicle Maintenance and 404-337 Automotive Electricity 1 and 404-339 Automotive Brake Systems and 404-351 Auto Engine Performance 1
Corequisite(s): 404-338 Automotive Electricity 2, 404-350 Auto Steering & Suspension Sys, 404-355 Automotive Computer Systems

404-353 Info Sys & Rel Drive Train **2 cr**

The first 40 hours includes repair order completion, time/labor guides and estimating procedures, consumer protection/estimating laws, mechanic liens, and hazardous materials handling. The course also covers how to use service manuals of all types and DVD data system, plus how to study, take notes, and keep up-to-date on the job (bulletins, trade publications, service schools, and after-market training). The second 40 hours is based on ASE/NATEF competencies for automatic transmissions/transaxles. Students can develop the knowledge needed to apply technical information, specifications, and repair procedures used in automatic transmission/transaxle servicing.
Corequisite(s): 404-321 Steering Susp & Manual Drv Trn
Restricted to students admitted to the following program(s): Automotive Maintenance Tech.

404-355 Automotive Computer Systems **2 cr**

A course of study designed to provide the student with the skills needed to diagnose, service and repair automotive computer controls and emission control systems. Basic electronic components and circuits are reviewed, leading to an understanding of automotive computer systems operations. Fundamentals of electricity, electronics, semiconductor materials, diodes, transistors, analog & digital signals, computer memory, sensors, actuators, and processor inputs/outputs will be related to basic computer operation. Specific instructions for locating diagnostic resources, vehicle data access, fault code interpretation, and diagnostic strategy will be related to On-Board Diagnostics engine control systems. Testing will include industry standard generic as well as manufacturer specific scan tool use and testing procedures. This course is web-enhanced. Some content will be delivered and available via the Internet.
Prerequisite(s): 404-336 Basic Vehicle Maintenance and 404-337 Automotive Electricity 1 and 404-339 Automotive Brake Systems or 404-351 Auto Engine Performance 1

404-356 Automotive HVAC Systems **3 cr**

A course of study designed to provide the student with the skills needed to diagnose, service and repair heating, ventilating, and air conditioning systems in automobiles. The student will be able to evacuate and recharge A/C systems, convert A/C systems from R-12 to R134a refrigerant according to industry standards, and perform component replacement. Students will be able to diagnose and repair computerized climate control systems. Upon successful completion of the course, the student will be licensed to perform A/C repairs in the state of Wisconsin. This course is web-enhanced. Some content will be delivered and available via the internet.

Prerequisite(s): 404-336 Basic Vehicle Maintenance and 404-337 Automotive Electricity 1 and 404-338 Automotive Electricity 2 and 404-339 Automotive Brake Systems and 404-350 Auto Steering & Suspension Sys and 404-351 Auto Engine Performance 1 and 404-352 Auto Engine Performance 2 and 404-355 Automotive Computer Systems

Corequisite(s): 404-360 Auto Axles & Drive Trains, 404-361 Manual Trnsmission & Trnsaxles, 404-362 Auto Trnsmission & Trnsaxles

404-357 Auto Safety & Security Systems **2 cr**

A course of study designed to provide the student with the skills needed to diagnose, service, and repair safety, security, and entertainment systems on late-model automobiles. Inflatable restraints, theft deterrent, navigation, and collision avoidance systems will be explored. Coursework will continue with radios, GPS, integrated DVD systems, and cellular and satellite based communication. This course is web-enhanced. Some content will be delivered and available via the internet.

Prerequisite(s): 404-356 Automotive HVAC Systems and 404-360 Auto Axles & Drive Trains and 404-361 Manual Trnsmission & Trnsaxles and 404-362 Auto Trnsmission & Trnsaxles

Corequisite(s): 404-363 Engine Repair, 404-370 Adv Auto Chassis Systems, 404-371 Adv Engine Perf & Alt Fuels

404-360 Auto Axles & Drive Trains **2 cr**

A course of study designed to provide the student with the skills needed to diagnose, service, and repair automotive axles and drive trains. Coursework includes: wheel bearings, constant velocity joints, drive shafts & u-joints, and differential units. This course is web-enhanced. Some content will be delivered and available via the internet.

Prerequisite(s): 404-336 Basic Vehicle Maintenance and 404-337 Automotive Electricity 1 and 404-338 Automotive Electricity 2 and 404-339 Automotive Brake Systems and 404-350 Auto Steering & Suspension Sys and 404-351 Auto Engine Performance 1 and 404-352 Auto Engine Performance 2 and 404-355 Automotive Computer Systems

Corequisite(s): 404-356 Automotive HVAC Systems, 404-361 Manual Trnsmission & Trnsaxles, 404-362 Auto Trnsmission & Trnsaxles

404-361 Manual Trnsmission & Trnsaxles **3 cr**

A course of study designed to provide the student with the skills needed to diagnose, service, and repair manual transmissions & transaxels on late-model vehicles. Coursework includes: hydraulic clutches, manual transmission theory & application, and the repair & overhaul of a manual transmission. This course is web-enhanced. Some content will be delivered and available via the internet.

Prerequisite(s): 404-336 Basic Vehicle Maintenance and 404-337 Automotive Electricity 1 and 404-338 Automotive Electricity 2 and 404-339 Automotive Brake Systems and 404-350 Auto Steering & Suspension Sys and 404-351 Auto Engine Performance 1 and 404-352 Auto Engine Performance 2 and 404-355 Automotive Computer Systems

Corequisite(s): 404-356 Automotive HVAC Systems, 404-360 Auto Axles & Drive Trains, 404-362 Auto Trnsmission & Trnsaxles

404-362 Auto Trnsmission & Trnsaxles **4 cr**

A course of study designed to provide the student with the skills needed to diagnose, service, and repair automatic transmissions & transaxles on late-model vehicles. Students will explore the principles of hydraulic and electronic controls as it relates to the automatic transmission. This includes operation of solenoids, sensors, seals, hydraulic clutches, servos, planetary gear sets & drives, and performing a failure evaluation along with a major overhaul of a late-model automatic transmission. This course is web-enhanced. Some content will be delivered and available via the internet.

Prerequisite(s): 404-336 Basic Vehicle Maintenance and 404-337 Automotive Electricity 1 and 404-338 Automotive Electricity 2 and 404-339 Automotive Brake Systems and 404-350 Auto Steering & Suspension Sys and 404-351 Auto Engine Performance 1 and 404-352 Auto Engine Performance 2 and 404-355 Automotive Computer Systems

Corequisite(s): 404-356 Automotive HVAC Systems, 404-360 Auto Axles & Drive Trains, 404-361 Manual Trnsmission & Trnsaxles

404-363 Engine Repair **4 cr**

A course of study designed to provide the student with the skills needed to diagnose, service, and repair internal combustion, engines found on late-model vehicles. Coursework includes: lubrication systems, valve timing, leak diagnosis and repair, engine noise & failure diagnosis, valve service, cylinder head replacement, and engine removal/replacement procedures. This course is web-enhanced. Some content will be delivered and available via the internet.

Prerequisite(s): 404-356 Automotive HVAC Systems and 404-360 Auto Axles & Drive Trains and 404-361 Manual Trnsmission & Trnsaxles and 404-362 Auto Trnsmission & Trnsaxles

Corequisite(s): 404-357 Auto Safety & Security Systems, 404-370 Adv Auto Chassis Systems, 404-371 Adv Engine Perf & Alt Fuels

404-370 Adv Auto Chassis Systems **3 cr**

A course of study designed to provide the student with the skills needed to diagnose, service, and repair advanced suspension components found on late-model vehicles. Coursework includes: wheel alignment, anti-lock brakes, tire pressure monitoring, electric steering, active suspension, and vehicle stability control, and traction control systems. This course is web-enhanced. Some content will be delivered and available via the internet.
Prerequisite(s): 404-356 Automotive HVAC Systems and 404-360 Auto Axles & Drive Trains and 404-361 Manual Trnsmission & Trnsaxles and 404-362 Auto Trnsmission & Trnsaxles
Corequisite(s): 404-357 Auto Safety & Security Systems, 404-363 Engine Repair, 404-371 Adv Engine Perf & Alt Fuels

404-371 Adv Engine Perf & Alt Fuels **3 cr**

A course of study designed to provide the student with the skills needed to operate a 4 or 5 gas analyzers and explain how they are used to analyze engine performance. Diesel engines will be explored. Compressed Natural Gas (CNG), ethanol, hybrid vehicles, fuel cells, and other alternative fuels will be discussed. Technician and Responder safety when working with these issues will also be included. This course is web-enhanced. Some content will be delivered and available via the internet.
Prerequisite(s): 404-356 Automotive HVAC Systems and 404-360 Auto Axles & Drive Trains and 404-361 Manual Trnsmission & Trnsaxles and 404-362 Auto Trnsmission & Trnsaxles
Corequisite(s): 404-357 Auto Safety & Security Systems, 404-363 Engine Repair, 404-370 Adv Auto Chassis Systems

405 Auto-Body/Chassis & Finish

405-301 Introduction to Auto Collision **1 cr**

This course is designed to prepare students for entry into the Auto Collision Program. Emphasis will be placed on lab safety. Program orientation, and customer vehicle processes.
Restricted to students admitted to the following program(s): Auto Collision Rpr & Ref Tech

405-352 Advanced Collision Repair **5 cr**

Students will learn the techniques associated with mechanical repair or replacement of mechanical components related to collision. Restoration/customizing are not available as a part of this course.
Prerequisite(s): 405-358 Structural Repair
Restricted to students admitted to the following program(s): Auto Collision Rpr & Ref Tech

405-355 Auto Body Basics **5 cr**

This course will give students the opportunity to acquire skills in basic metal finishing techniques, body panel repair techniques, plastic filler application, and surface preparation.
Prerequisite(s): 405-301 Introduction to Auto Collision and 405-382 Paint Technology and 442-315A Welding for Auto Collision
Restricted to students admitted to the following program(s): Auto Collision Rpr & Ref Tech

405-356 Nonstructural Repair **5 cr**

Students will develop skills in repair of minor and major dent repair, nonstructural.
Prerequisite(s): 405-355 Auto Body Basics
Restricted to students admitted to the following program(s): Auto Collision Rpr & Ref Tech

405-357 Refinishing **5 cr**

Students will complete paint jobs, spot repair, color blending, sanding techniques and taping.
Prerequisite(s): 405-356 Nonstructural Repair

405-358 Structural Repair **5 cr**

Students will determine types and levels of damage to Unibody and frame vehicles. Skill in measuring needed repairs will be developed.
Prerequisite(s): 405-357 Refinishing

405-370 Auto Collision Internship **1 cr**

This course is designed to provide students with an opportunity to experience skills and knowledge obtained in their program course work. A training plan is created for each student in conjunction with the training site and the CVTC Auto Collision program. This course is designed to help the student, instructor, and site supervisor to focus on major outcomes of the training and general readiness for employment in their chosen field. This course work will be completed during the winter term between the first and second semesters of the Auto Collision program.
Restricted to students admitted to the following program(s): Auto Collision Rpr & Ref Tech

405-375 Estimating & Structural Repair **2 cr**

Terms, abbreviations, and vehicle identification necessary for estimating collision damage will be learned. Emphasis will be placed on following estimating procedures along with development of damage estimate writing skills. Students will acquire the knowledge necessary to conduct an inspection and perform damage analysis, both structural and non-structural.
Prerequisite(s): 405-356 Nonstructural Repair and 405-382 Paint Technology
Restricted to students admitted to the following program(s): Auto Collision Rpr & Ref Tech

405-381 Auto Collision Mechanical **2 cr**

This is an eight-week theory and lab course offered only in the summer. Designed to promote skills in repairing mechanical damage caused by collision. Diagnosis and repair or replacement of steering and suspension parts, brakes, and drive axles. Practical hands-on work to learn removal and replacement of mechanical parts, cooling system, and air conditioning components. Basic wheel alignment, auto body air conditioning, and auto body electrical will be studied.
Restricted to students admitted to the following program(s): Auto Collision Rpr & Ref Tech

405-382 Paint Technology **2 cr**

Automotive refinishing basics includes history of automotive refinishes, paint shop equipment, safety, undercoats, solvents, top coats, problems and solutions. Color matching and blending includes color theory, appearance factors, types of finishes, preparation for painting, equipment and painting area, color testing, color blending and detailing using introductory I-CAR course materials.
Restricted to students admitted to the following program(s): Auto Collision Rpr & Ref Tech

412 Combustion Engines

412-305 Truck Chassis I **5 cr**

This course will introduce the student to the diesel/heavy duty truck repair business. Vehicle safety, driving practices, truck servicing, and wheel end repair, along with hydraulic brakes, air brakes, and air brake systems will be the subject material. A tool kit is required by each student in this course.
Corequisite(s): 412-306 Truck Chassis II
Restricted to students admitted to the following program(s): Diesel Truck Mechanic, Diesel Truck Technician

412-306 Truck Chassis II **5 cr**

This course will study front-end geometry, alignment, steering, and suspensions as it pertains to light- and heavy-duty trucks. Also studied will be clutches, drivelines, coupling, and 5th wheel operation. A tool kit is required by each student in this course.
Corequisite(s): 412-305 Truck Chassis I

412-307 Chassis Electrical **5 cr**

This course will study all aspects of electrical systems found on heavy-duty trucks. Battery testing, lighting, starting, charging, in-dash controls, schematic interpretation, and troubleshooting techniques using a digital multi-meter will be practiced. A tool kit is required by each student in this course.
Prerequisite(s): 412-306 Truck Chassis II
Corequisite(s): 412-308 Mechanical Gear Trains, 412-309 Heavy Duty Trck HVAC & Refrig

412-308 Mechanical Gear Trains **4 cr**

This course introduces the student to rear axle, power divider, and manual transmission concepts. The student will study gear ratios, gear types, gear train configurations, failure analysis, standard servicing requirements, and practice the rebuilding techniques for each major brand. A tool kit is required by each student in this course.
Prerequisite(s): 412-306 Truck Chassis II
Corequisite(s): 412-307 Chassis Electrical, 412-309 Heavy Duty Trck HVAC & Refrig

412-309 Heavy Duty Trck HVAC & Refrig **3 cr**

This course is designed to familiarize the student with basic air conditioning/heating concepts and diagnostic procedures as used with heavy-duty trucks and other heavy equipment. The course will focus on A/C concepts, federal and state requirements, component operation, controls, and service procedures such as recovery, evacuation, and charging. Transport refrigeration diagnostic concepts and service procedures as used on refrigerated trailers will also be studied. A tool kit is required by each student in this course.
Prerequisite(s): 412-306 Truck Chassis II
Corequisite(s): 412-307 Chassis Electrical, 412-308 Mechanical Gear Trains
Restricted to students admitted to the following program(s): Diesel Truck Mechanic, Diesel Truck Technician

412-310 Diesel Engine Oper & Tune-up **4 cr**

This course will introduce the student to the mechanical diesel engine. The student will study engine operating fundamentals, basic theory of combustion, mechanical controls, and fuel injection systems. Emphasis will be on engine tune-up and testing with proper diagnostic procedures. A tool kit is required by each student in this course.
Prerequisite(s): 412-309 Heavy Duty Trck HVAC & Refrig
Corequisite(s): 412-311 Applied Mobile Hydraulics, 412-312 Intro to Electronic Control

412-311 Applied Mobile Hydraulics **2 cr**

This course will provide the application of basic hydraulic principles into typical mobile hydraulic circuits. The student will experience activities with basic hydraulic components including, disassembly and assembly of valves, pump, and cylinder. Servicing and preventive maintenance will be performed on trucks and other equipment. A tool kit is required by each student in this course.
Prerequisite(s): 412-309 Heavy Duty Trck HVAC & Refrig
Corequisite(s): 412-310 Diesel Engine Oper & Tune-up, 412-312 Intro to Electronic Control

412-312 Intro to Electronic Control **4 cr**

This course will introduce the student to the basic electronic control systems that are integrated into the modern heavy -duty truck. The student will study electronic engine systems and electronic transmission systems. Schematic interpretation, troubleshooting techniques using a digital multi-meter, service manual and scan tools will be practiced. A tool kit is required by each student in this course.
Prerequisite(s): 412-309 Heavy Duty Trck HVAC & Refrig
Corequisite(s): 412-310 Diesel Engine Oper & Tune-up, 412-311 Applied Mobile Hydraulics

412-313 Diesel Engine Overhaul **5 cr**

This course will study heavy-duty diesel engine rebuild. Diagnostic and disassembly procedures, evaluation of worn parts, component rebuilding, reassembly and testing procedures including power concepts and dynamometer run-in. Operation and troubleshooting of cooling and lubrication systems. A tool kit is required by each student in this course.
Prerequisite(s): 412-312 Intro to Electronic Control
Corequisite(s): 412-314 Electronic Diagnostics, 412-315 Preventive Maintenance, 458-308 CDL License Training-Pre-Trip

412-314 Electronic Diagnostics **4 cr**

This course will advance the student's ability in electronic diagnostics with the use of electronic software for engine and transmission troubleshooting. The student will be using skills learned in the program to diagnose active and inactive codes, system reprogramming, and intermittent codes. A tool kit is required by each student in this course.
Prerequisite(s): 412-312 Intro to Electronic Control
Corequisite(s): 412-313 Diesel Engine Overhaul, 412-315 Preventive Maintenance, 458-308 CDL License Training-Pre-Trip

412-315 Preventive Maintenance **1 cr**

This course will offer the student a change to show the instructor his or her ability to perform general and/or major preventive maintenance/repair on a heavy-duty truck. Task may include any area that was covered in the program. A tool kit is required by each student in this course.
Prerequisite(s): 412-312 Intro to Electronic Control
Corequisite(s): 412-313 Diesel Engine Overhaul, 412-314 Electronic Diagnostics, 458-308 CDL License Training-Pre-Trip

412-320 Diesel Equipment Service Mgmt **2 cr**

This course provides the student with practical aspects of managing a fleet or repair business. Special concentration is placed on current OEM software, preventive maintenance, DOT annual inspections, OSHA, DNR/EPA laws and regulations. Course work will be presentations, written reports, and computer lab work.

412-345 Basic DC Electricity **2 cr**

This course introduces the student to DC electrical and electronic circuitry as it applies to heavy-duty trucks. The course will focus on characteristics of electricity, series circuits, parallel circuits, soldering, Ohm's Law, meter usage/application, and relay operation. These skills will be practiced on training boards in a controlled lab setting. A digital volt/Ohm meter is required by each student in this course.
Restricted to students admitted to the following program(s): Diesel Truck Mechanic, Diesel Truck Technician

412-350 Mobile Hydraulic Concepts **1 cr**

This course will provide the basic concepts of hydraulic principles that are found in typical mobile hydraulic circuits. The student will learn the components, related math, symbols, schematics, fitting, operations, and maintenance of the hydraulic systems.
Corequisite(s): 412-311 Applied Mobile Hydraulics

412-360 Diesel Fundamentals **1 cr**

Diesel Fundamentals is an introduction to shop safety and common shop practices utilized in the diesel industry, and the Diesel Technician program. Students will learn proper shop procedures, safety practices, tool usage, and service manual usage. The skills learned by the students will be directly applied during the Diesel Technician program and throughout their career.

412-380 Diesel Internship **1 cr**

This course is designed to provide the student with a purposeful occupational experience in the medium/heavy truck field. Each internship is an individualized experience. A training plan is created for each student in conjunction with the training site and CVTC Diesel Technician Program to provide experience related to the skills and knowledge acquired in the program. Student must be in 4th semester status.
Restricted to students admitted to the following program(s): Diesel Truck Technician

413 Electricity

413-310 Basic EPD Safety **2 cr**

This theory course will introduce the concepts of basic Lineworker safety on the job including how to use fall protection, personal protective equipment, chainsaws, knots, rigging, and communications, both verbal and utilizing hand signals. First Aid and CPR certification (Including becoming familiar with an Automated External Defibrillator) will be obtained in this course.
Restricted to students admitted to the following program(s): Electrical Power Distribution

413-311 Intro to Pole Climbing **2 cr**

This outdoor lab course is an introductory course on how to properly climb poles and towers utilizing fall protection. Poles up to 40' tall will be climbed on a daily basis. Students will be working in groups towards the end of this course to "wreck out/retire" old power lines and equipment from the previous year's students. Students will be expected to wear all personal protective equipment (PPE) at all times including: Hard hat, safety glasses, gloves, long sleeve shirts, and the proper approved fall restraint system.
Restricted to students admitted to the following program(s): Electrical Power Distribution

413-312 Basic EPD Electricity **1 cr**

This classroom/theory course has an emphasis on basic electrical theory including Ohm's Law and magnetism. This course explains where electricity comes from and how to measure volts, amperes, ohms, and watts properly. Basic and advanced math skills will be utilized including: algebra, geometry, trigonometry, fractions, decimals, etc.
Restricted to students admitted to the following program(s): Electrical Power Distribution

413-313 URD Installation & Termination **2 cr**

This hands-on lab course will introduce the student on how to properly operate the following equipment: digger-derrick truck, skid-steer, trencher, backhoe, plow (for installing underground cable). Students will install underground cable, learn how to properly terminate the cable for overhead pole use and underground pad-mount use. Simulated underground wire switching procedures will be introduced in this course.
Restricted to students admitted to the following program(s): Electrical Power Distribution

413-320 Intermediate EPD Electricity **4 cr**

This theory course builds off of the basic Ohm's law concepts taught in the Basic Electricity course and transgresses into deeper concepts including: Alternating Current vs. Direct Current, work, single phase power & energy concepts, parallel and combination circuits, single phase transformers, as well as measuring resistance, reactance (both inductive and capacitive), and impedance. Wire sizing and resistance will be discussed. The student will frequently utilized higher level math concepts including: algebra, Pythagorean Theorem, square root, trigonometry functions (Sine, Cosine, Tangent), vectors and reciprocal formulas.
Prerequisite(s): 413-310 Basic EPD Safety and 413-311 Intro to Pole Climbing and 413-312 Basic EPD Electricity and 413-313 URD Installation & Termination and (804-360 Math for Technical Trades or 804-363 Math for Electricty & Electrnc)
Restricted to students admitted to the following program(s): Electrical Power Distribution

413-321 OH Line Design & Construction **5 cr**

This outdoor lab course will introduce the students to power line insulators, line pole information, reading and following a specification manual, staking power lines for new construction, right of way clearance and procedures along with constructing a distribution line from scratch. Each student will participate in tension stringing of ACSR wire, sagging and clipping in the wire to the insulators along with installing armor rod where necessary. Team work and practicing safe work practices will be emphasized heavily during this course. Students will also learn guying and anchoring concepts. Students will acquire a Medic/First Aid & CPR with AED Certification.
Prerequisite(s): 413-310 Basic EPD Safety and 413-311 Intro to Pole Climbing and 413-312 Basic EPD Electricity and 413-313 URD Installation & Termination and (804-360 Math for Technical Trades or 804-363 Math for Electricty & Electrnc)
Restricted to students admitted to the following program(s): Electrical Power Distribution

413-330 Advanced EPD Safety **2 cr**

This theory course teaches students how to properly ground electrical apparatus, how to de-energize, test, and ground out a power line. Proper procedures on lock out/tag out will also be discussed. Proper procedures on how to safely remove capacitors and voltage regulators from service will be discussed in great detail. The safety manual will be utilized extensively to teach students how to prevent injuries on the job.
Prerequisite(s): 413-310 Basic EPD Safety and 413-311 Intro to Pole Climbing and 413-312 Basic EPD Electricity and 413-313 URD Installation & Termination and (804-360 Math for Technical Trades or 804-363 Math for Electricty & Electrnc)
Restricted to students admitted to the following program(s): Electrical Power Distribution

413-331 Power Line Apparatus **2 cr**

This lab course will teach students how to install, connect, and perform basic maintenance pole mounted transformers, fused cutouts, power line capacitors, Oil Circuit reclosers, sectionalizers, switches and voltage regulators. Personal protective grounding will be emphasized in this course using hands-on training.
Prerequisite(s): 413-310 Basic EPD Safety and 413-311 Intro to Pole Climbing and 413-312 Basic EPD Electricity and 413-313 URD Installation & Termination and 413-320 Intermediate EPD Electricity and 413-321 OH Line Design & Construction and (804-360 Math for Technical Trades or 804-363 Math for Electricty & Electrnc)
Restricted to students admitted to the following program(s): Electrical Power Distribution

413-332 Advanced EPD Electricity **2 cr**

In this theory course, students will learn all the concepts attributed to both single phase power and three phase power including transformer connections. Overcurrent & Overvoltage protective devices will be introduced. The operation, installation and maintenance of voltage regulators will be discussed.
Prerequisite(s): 413-310 Basic EPD Safety and 413-311 Intro to Pole Climbing and 413-312 Basic EPD Electricity and 413-313 URD Installation & Termination and 413-320 Intermediate EPD Electricity and 413-321 OH Line Design & Construction and (804-360 Math for Technical Trades or 804-363 Math for Electricty & Electrnc)
Restricted to students admitted to the following program(s): Electrical Power Distribution

413-333 Transmission Line Construction **2 cr**

In this outdoor lab course students will "wreck out" complete transmission power line structures, then construct them from scratch without using a bucket truck. Poles/structures will be climbed up to 70' high.
Prerequisite(s): 413-310 Basic EPD Safety and 413-311 Intro to Pole Climbing and 413-312 Basic EPD Electricity and 413-313 URD Installation & Termination and 413-320 Intermediate EPD Electricity and 413-321 OH Line Design & Construction and (804-360 Math for Technical Trades or 804-363 Math for Electricty & Electrnc)
Restricted to students admitted to the following program(s): Electrical Power Distribution

413-334 Live Line Maintenance **1 cr**

This is an interactive lab course. Students will be introduced to hot line work procedures including rubber gloving and hot sticking. On the job training/job shadowing will be recommended. One on one time with the Instructor will be available during this course. Hot line school with the state apprentices occurs during this class period. Students will also have the opportunity to "job-out" during this course if they acquire a job in the related field before the end of this course.
Prerequisite(s): 413-310 Basic EPD Safety and 413-311 Intro to Pole Climbing and 413-312 Basic EPD Electricity and 413-313 URD Installation & Termination and 413-320 Intermediate EPD Electricity and 413-321 OH Line Design & Construction and (804-360 Math for Technical Trades or 804-363 Math for Electricty & Electrnc)
Restricted to students admitted to the following program(s): Electrical Power Distribution

419 Industrial Hydraulics-Pneumatic

419-102 Hydraulic System Operations **2 cr**

This course provides the application of basic hydraulic principles into typical industrial circuits. The students will experience exercises with basic hydraulic components and simple oil systems and how they are applied in circuits. This course is designed to help develop skills in understanding hydraulic components and their interaction to each other in demonstration circuits. The course is presented in the individual study mode to allow the students flexibility in scheduling their time.
Prerequisite(s): 419-116 Basic Hydraulics
Restricted to students admitted to the following program(s): Fluid Power Maintenance, Industrial Mechanic, Industrial Mechanical Tech

419-116 Basic Hydraulics **2 cr**

This course exposes the student to the theories and basic components of hydraulics. Basic component construction and operation is explored. The theory of function is supplemented by hands on disassembly and assembly of actual industrial components. The course is presented in the individual study mode to allow the students flexibility in scheduling their time.
Restricted to students admitted to the following program(s): Fluid Power Maintenance, Industrial Mechanic, Industrial Mechanical Tech, Mechanical Maintenance

419-117 Basic Pneumatics **2 cr**

This course exposes the student to the theories and basic components of pneumatics. Basic component construction and operation is explored. The theory of function is supplemented by hands on disassembly and assembly of actual industrial components. The course is presented in the individual study mode to allow the students flexibility in scheduling their time.
Restricted to students admitted to the following program(s): Fluid Power Maintenance, Industrial Mechanic, Industrial Mechanical Tech, Mechanical Maintenance

419-118 Pneumatic System Operations **2 cr**

This course provides the application of basic pneumatic principles into typical industrial circuits. The student will experience exercises with basic pneumatic components and simple air systems and how they are applied in circuits. This course is designed to help develop skills in understanding pneumatic components and their interaction to each other in demonstration circuits. Vacuum components and air logic systems will be included. The course is presented in the individual study mode to allow the students flexibility in scheduling their time.
Prerequisite(s): 419-117 Basic Pneumatics
Restricted to students admitted to the following program(s): Fluid Power Maintenance, Industrial Mechanic, Industrial Mechanical Tech

419-301 Related Fluid Power **1 cr**

Hydraulic and pneumatic industrial fluid power; theory and laboratory activities including disassembly and assembly of valves, pumps, cylinders; testing, servicing, preventive maintenance.
Corequisite(s): 412-311 Applied Mobile Hydraulics

420 Machine Shop

420-105 Manual Machining Processes **2 cr**

This course is intended to develop the fundamental skills of machining for a career in the maintenance trades. Fundamental processes include; Manual Lathe operation, Manual Mill operation, basic set-up, lay-out, measurement, turning processes, milling processes, drilling processes, and tool geometry/sharpening. The format for this class is lecture/lab format, which means the lecture component will directly relate to lab exercises.

420-106 CNC Machining Processes **1 cr**

This course is designed to prepare the student for entry-level skills in setup, and operation of CNC milling machines. Repetitive operational tasks will be performed so students acquire knowledge and skill in setting-up and operating CNC milling machines. Students will develop and apply skills in setting and testing work and tool offsets, performing manual data input functions, and the running of proven CNC programs. Programming examples will be covered using canned cycles, linear interpolation. Projects will be assigned and completed using Haas vertical mills. The format for this class is a teacher paced lecture/lab class with a minimum allowable standard established.

420-125 Related Machine Tool Concepts **2 cr**

Skill development in use of lathe, drill press, and other machine shop equipment; safety and proper shop procedures emphasized.
Restricted to students admitted to the following program(s): Automation Eng Technology, Electrical Maintenance, Electromech Maint Tech, Industrial Mechanic, Industrial Mechanical Tech

420-150 Machining/CAM **3 cr**

This course is designed to give the student an overview of the machining processes to include milling, drilling, turning, and grinding. It will involve working with manuals as well as computerized (CNC) machine tools. The student will also be introduced to CAM software where they will define the part geometry, develop tool paths, and download to the CNC machine to create a part.
Restricted to students admitted to the following program(s): Industrial Mechanic, Industrial Mechanical Tech

420-300 Machine Shop Theory **1 cr**

Broad theoretical background in machine shop practices which includes milling, turning, grinding, and drilling.
Corequisite(s): 420-321 Manual Turning Processes, 420-373 Precision Measurement
Restricted to students admitted to the following program(s): Machine Tool Operator, Machine Tooling Technics

420-301 Machining Processes, Intro to **4 cr**

This course is intended to develop the fundamental skills for a career in the machining trade. Fundamental processes include bench work, layout, basic set-up, measurement, turning, surface grinding, and tool geometry/sharpening. The format for this class is a self-paced lab with a minimum allowable standard established. This course requires the purchase of tools and measuring equipment required for working in the Machine Tool lab.
Restricted to students admitted to the following program(s): Machine Tooling Technics, Tool & Die Making

420-302 Machining Processes, Inter **5 cr**

This course expands on the fundamental skills of the machine shop by broadening the student's knowledge base with bench work, layout, set-up, measurement, turning, drilling, grinding, tool geometry/sharpening, and an introduction to milling. The format for this class is a self-paced lab with a minimum allowable standard established.
Prerequisite(s): 420-301 Machining Processes, Intro to

420-309 Adv CNC Programming Theory **1 cr**

In this course students will acquire knowledge and skills in CNC Lathe programming concepts. Students will develop and apply manual G&M code programming skills in linear and circular interpolation, canned cycles, and tool nose radius compensation techniques. Math concepts will be applied to find Cartesian coordinates for part geometry. Students will complete examples presented and be assigned similar projects to reinforce the material presented.
Prerequisite(s): (804-360 Math for Technical Trades or 804-361 Math 10) and 420-310 CNC Programming Theory
Corequisite(s): 420-326 Adv CNC Mill & Grinding Proc, 420-331 Advanced CNC Turning Processes
Restricted to students admitted to the following program(s): Machine Tooling Technics

420-310 CNC Programming Theory **1 cr**

In this course students will acquire knowledge and skills in CNC Mill programming concepts. Students will develop and apply manual G&M code programming skills in linear and circular interpolation, canned cycles, cutter compensation techniques, and applications using sub-program and sub-routines. Math concepts will be applied to find Cartesian coordinates for part geometry. Students will complete examples presented and be assigned similar projects to reinforce the material presented.
Prerequisite(s): 420-321 Manual Turning Processes and 420-322 Manual Milling Processes and 804-360 Math for Technical Trades
Corequisite(s): 420-325 Basic CNC Mill Programming, 420-330 Basic CNC Lathe Programming

420-315 Machine Tool Internship **3 cr**

Students are encouraged to find an internship while enrolled in the third semester of the Machine Tooling Technics program. Each student is responsible for finding an internship before enrolling in this course. Students are required to keep the instructor apprised of work activities via email, face-to-face work-site and office visits, and Edvance360 discussion boards.
Prerequisite(s): 420-326 Adv CNC Mill & Grinding Proc and 420-331 Advanced CNC Turning Processes

420-318 Intro to Manual Lathe **2 cr**

This course is intended to introduce the basic fundamental skills for a career in the machining trade. Fundamental processes include; Manual Lathe operation, basic set-up, lay-out measurement, turning processes, and tool geometry/sharpening. The format for this class is a hybrid format, which means that there are assignments to be completed online and other assignments to be completed in the machine shop lab. The course's online component, which supports the machine shop lab activities. Along with online content there is also face-to-face instruction in the machine shop lab.

420-319 Manual Lathe Operations **3 cr**

This course is intended to develop the fundamental skills for a career in the machining trade. Fundamental processes include; Manual Lathe operation, basic set-up, lay-out, measurement, turning processes, and tool geometry/sharpening. The format for this class is a hybrid format, which means that there are assignments to be completed online and other assignments to be completed in the machine shop lab. The course's on-line component, which supports the machine shop lab activities. Along with online content there is also face-to-face instruction in the machine shop lab.
Prerequisite(s): 420-318 Intro to Manual Lathe

420-321 Manual Turning Processes **5 cr**

This course is intended to develop the fundamental skill for a career in the machining trade. Fundamental processes include; Manual Lathe operation, basic set-up, lay-out, measurement, turning processes, and tool geometry/sharpening. The format for this class is a self-paced lab with a minimum allowable standard established. This course requires the purchase of tools and measuring equipment required for working in the Machine Tool lab.
Corequisite(s): 420-300 Machine Shop Theory, 420-373 Precision Measurement
Restricted to students admitted to the following program(s): Machine Tool Operator, Machine Tooling Technics

420-322 Manual Milling Processes **5 cr**

This course expands on the fundamental skills of the machine shop by broadening the student's knowledge base with; Manual mill operation, basic set-up, layout, measurement, drilling and milling processes along with using a variety of milling cutters.
Corequisite(s): 420-300 Machine Shop Theory, 420-321 Manual Turning Processes, 420-373 Precision Measurement
Restricted to students admitted to the following program(s): Machine Tool Operator, Machine Tooling Technics

420-323 Manual Milling Machine Setup **2 cr**

Students will learn to comply with machine shop/lab safety rules; read and follow written instructions; evaluate completed project to blueprint specifications; document measurements; calculate RPM (07/02/2015 sbp); create holes (07/02/2015 sbp); slab mill parts to length (07/02/2015 sbp).

420-324 Manual Milling Mach Operations **3 cr**

Students will learn to measure project features; inspect complete project; setup a manual milling machine; create a process sheet; maintain sharp cutting tools; assemble completed project; calculate federate; create threaded holes; create reamed holes; create large precision bore; face mill parts to size; precision slot mill.
Prerequisite(s): 420-323 Manual Milling Machine Setup
Corequisite(s): 420-300 Machine Shop Theory, 420-321 Manual Turning Processes, 420-373 Precision Measurement

420-325 Basic CNC Mill Programming **5 cr**

This course is designed to prepare the student for entry-level skills in programming, setup, and operation of CNC milling machines. Repetitive operational tasks will be performed as students acquire knowledge and skill in setting-up and operating CNC milling machines. Students will develop and apply skills in setting and testing work and tool offsets, performing manual data input functions, loading programs, and the running of proven CNC programs. Programming examples will be covered using canned cycles, linear and circular interpolation, cutter compensation, subroutines, and multiple fixture offsets, etc. Projects will be assigned and completed using Haas Mini and VF series vertical mills.
Prerequisite(s): 420-322 Manual Milling Processes or 420-324 Manual Milling Mach Operations
Corequisite(s): 420-330 Basic CNC Lathe Programming

420-326 Adv CNC Mill & Grinding Proc **5 cr**

This course is designed to expand on a student's foundational skills in programming, setup, and operation of CNC milling machines and surface grinders. Students will develop and apply setup and programming skills using machining centers. Students will also utilize the grinding process to perform secondary operations on in-process parts. Projects will be assigned and completed using Haas machining centers.
Prerequisite(s): 420-325 Basic CNC Mill Programming
Corequisite(s): 420-331 Advanced CNC Turning Processes

420-330 Basic CNC Lathe Programming **5 cr**

This course is designed to prepare the learner for entry-level skills in operation, setup, and manual programming of CNC lathes. Repetitive operational tasks will be performed by students to acquire knowledge and skills in operation and setup of CNC lathes. Programming examples will be covered using canned cycles, linear, and tool nose radius compensations. Projects will be assigned and completed using Haas CNC Turning Centers.
Prerequisite(s): 420-321 Manual Turning Processes
Corequisite(s): 420-325 Basic CNC Mill Programming

420-331 Advanced CNC Turning Processes **5 cr**

This course is designed to expand your foundational skills in programming, setup, and operation of CNC turning centers. You will develop and apply setup and programming skills using CNC turning centers with live tooling capabilities. Programming examples will be covered using advanced programming techniques. Projects will be assigned and completed using Haas CNC Turning Centers.
Prerequisite(s): 420-330 Basic CNC Lathe Programming
Corequisite(s): 420-326 Adv CNC Mill & Grinding Proc

420-341 Materials for Machinists **2 cr**

During this course individuals will learn the terminology relating to the mechanical, physical, and chemical properties of materials used for Machine Tooling Technics. Materials covered will be the classification of steel, cast iron, aluminum, copper, and polymers. Lab activities will include hardening, annealing, case hardening, destructive test, non-destructive test, casting, molding, welding, and gluing of materials.
Prerequisite(s): 420-321 Manual Turning Processes and 420-322 Manual Milling Processes

420-347 Related Machine Tool **2 cr**

Use of lathe, drill press and other machine shop equipment; sharpening drills; removing studs; using machine hand tools; safety; proper shop procedures.

420-351 CAM for Multi-Axis Machining **3 cr**

This course will provide the students with a knowledge base of using a CAD/CAM system for multi-axis machining. The purpose of this course is to apply the software to create wireframe geometry, create solid models, and generate toolpaths for multi-axis machining, set-up and machine parts on both CNC Lathes and Mills. The student will have applications programming live tooling lathes using C and Y axis, and programming a CNC Mill with a rotary trunnion for 3+2 and 5-axis simultaneous machining. This course is designed to prepare the student to work with CAD/CAM programming, set-up, and operation of multi-axis machines.
Prerequisite(s): 420-367 MasterCam Advanced and 420-353 CAM for CNC Lathe

420-352 Advanced Technologies in Mfg **5 cr**

In this course the student will learn theories and concepts that will include Work Piece Processing, High Performance Machining, Electrical Discharge Machining (EDM), Fixture Creation, Advanced Measurement Techniques, Advanced Tooling Setup Techniques, and Program Optimization.
Prerequisite(s): 420-326 Adv CNC Mill & Grinding Proc and 420-331 Advanced CNC Turning Processes and 420-353 CAM for CNC Lathe and 420-367 MasterCam Advanced
Corequisite(s): 420-355 Competitive Machining Techniqs

420-353 CAM for CNC Lathe **2 cr**

In this course students will acquire knowledge and skills in MasterCam Lathe concepts. Students will develop and apply skills in creating part geometry, generate tool paths using facing, rough, finish, groove, thread, drilling, cut-off, and lathe live tooling. Students will complete examples presented and be assigned similar projects to reinforce the material presented.
Prerequisite(s): 420-380 2-D CAM and 420-330 Basic CNC Lathe Programming
Corequisite(s): 420-331 Advanced CNC Turning Processes

420-355 Competitive Machining Techniqs **5 cr**

The focus of this course is productivity-based, using the machine tools available in the machine shop lab. The application projects will focus on applying advanced machining techniques to practice. The theories that will be applied in this course will include High Speed Machining (HSM), Hard Milling, Live Tooling on the Lathe, Electrical Discharge Machining (EDM), Fixture Creation, and Program Optimization. Another component of this course is time utilization. Time utilization is very important to you and your future employer which means that all projects will be time sensitive to reinforce productivity.
Prerequisite(s): 420-326 Adv CNC Mill & Grinding Proc and 420-331 Advanced CNC Turning Processes
Corequisite(s): 420-352 Advanced Technologies in Mfg

420-367 MasterCam Advanced **3 cr**

This course will provide the student with an advanced knowledge base of a CAD/CAM software using MasterCam. The purpose of this course is to apply the software to create solid models, utilize the Work Coordinate Systems (WCS), import geometry files created by other CAD systems, create High Speed Dynamic Tool Paths to wireframe geometry and solid features using advanced cutting tools, and apply machining technologies and processing strategies. This course is designed to prepare the student to work with advanced technologies in the integration of Solid Modeling and High Speed Dynamic Toolpaths.
Prerequisite(s): 420-380 2-D CAM

420-373 Precision Measurement **1 cr**

This course will provide the theory, technique, and care of the coordinate measuring machine (CMM) and various measuring instruments. The student will apply blueprint reading skills and geometric tolerancing to projects made in the machine shop while applying measuring techniques used with the CMM and basic measuring instruments. The student will be exposed to precision inspection methods as it relates to industrial blueprints, manufactured parts, and the student's projects.
Corequisite(s): 420-300 Machine Shop Theory, 420-321 Manual Turning Processes
Restricted to students admitted to the following program(s): Machine Tool Operator, Machine Tooling Technics

420-379 Job Skills for Manufacturing **1 cr**

Develop skills in preparation of manufacturing trades job search to include; a resume, employment application form, letter of job inquiry, and thank you letter following an employment interview. The learner will develop a job portfolio for the manufacturing trades to include documents and pictures of educational and work experience.
Restricted to students admitted to the following program(s): Machine Tooling Technics

420-380 2-D CAM **2 cr**

2-D CAM is a two-credit course that is offered by the Machine Tool Department at Chippewa Valley Technical College. This course will provide the student with a basic knowledge of a Windows environment computer workstation and CAD-CAM software. The purpose of this course is to develop the skills of print interpretation, geometry generation, dimensioning, and both virtual and conventional machining of part geometry to print specifications. 2-D CAM is a one-semester (64-hour) course and is intended for entry-level machine tool programmers. This is a laboratory-based course that consists of hands-on activities. Enrollment by instructor consent.
Prerequisite(s): 420-325 Basic CNC Mill Programming or 420-325A Basic CNC Mill Programming

420-385 Advanced Machine Concepts **3 cr**

This course will introduce the student to the Swiss screw machine concept and operations fundamentals. Emphasis will be placed on the skill development for basic Swiss processes and operation of the Citizen Swiss screw machine. This course will include performance competencies for machine setup, load proven part programs, setting tools, adjusting offsets, and the setup of an automatic bar feeder for automated manufacturing. Other advance machine concepts that the students will be exposed to is the Sinker and Wire EDM machines.
Prerequisite(s): 420-326 Adv CNC Mill & Grinding Proc and 420-331 Advanced CNC Turning Processes and 420-367 MasterCam Advanced
Restricted to students admitted to the following program(s): Machine Tooling Technics

421 Mechanical Drafting

421-302 Manufacturing Processes **2 cr**

This course is designed to explore the manufacturing process as applied to mechanical part designs. Instruction includes the properties and processing characteristics of metals, plastics, elastomers, woods, ceramics, and composites. Manufacturing processes include mechanical tool cutting, machining, electrochemical milling, photochemical etching, laser machining, casting, fabricating, joining, heat treating, and secondary finishing operations. Modern manufacturing technologies such as automation, robotics, and computer integrated technologies are also included with case studies of industry.

421-303 CAD I **3 cr**

Introduction to computer-aided drafting and design (CAD) software (AutoCAD) to create two-dimensional drawings. Introduces CAD navigational commands to create entities, edit, store, and print CAD drawings. Topics include entity creation of arcs, circles, lines, coordinates, editing functions, scaling, making templates, text detailing, layers and line types, viewports, modelspace layout and paperspace practices, dimensioning styles, calculation strategies, blocks, groups, libraries, attributes, bills of materials, and plotting to scale. The student will apply CAD skills to a detailed mechanical design drawing. All assignments are documented within an AutoCAD portfolio.

421-304 CAD II **2 cr**

This course is designed to teach computer-aided drafting principles and standard practices. AutoCAD software is used for technical drawing applications. Topics include coordinate features, various editing functions, file maintenance, database management, prototype drawing, mechanical part design dimensioning practices, the use of blocks, using library symbols, two-dimensional CAD design details, and printing or plotting. Detailed drawings will follow general dimensioning practices found in ASME Y14.5-2009.

421-305 CAD III **3 cr**

This course is designed to explore and create 3-D models of mechanical parts using AutoCAD or SolidWorks surfacing and solid modeling commands. This course uses project-based instruction focusing on assembly drawings and design documentation. Prerequisite(s): (421-303 CAD I and 421-304 CAD II)

421-315 Geometric Tolerancing **2 cr**

This course is designed to provide the concepts of Geometric dimensioning and tolerancing (GD&T) as applied to mechanical parts. Welding fabrication, and mechanical assemblies, GD&T symbols of form, orientation, profile, location, and runout will be used in application based on ASME Y14.5-2009 standards. GD&T universal symbols and terms will be applied: position tolerancing, datum reference frame theory, datum (size) modifiers, datum targets, metrology and functional gage design application using a coordinate measuring open setup.

421-321 Basic Solid Modeling **3 cr**

This course introduces the basic concepts and commands required to develop 3-D solid models using SolidWorks software. Students will learn to constrain models and develop parametric models. Students will also produce 2-D working drawings from the models. Topics will include dimensioning, orthographic views, and section views.

421-385 MT Blueprint Reading and GD&T **2 cr**

Introduction of engineering language used on blueprints; interpretation of blueprints; blueprints and understanding manufacturing processes and communication between product design and machinist-manufacturer.
Restricted to students admitted to the following program(s): Machine Tool Operator, Machine Tooling Technics

421-386 Welding-Blueprint Reading **2 cr**

Drawing fundamentals related to two and three view drawings; visual projection methods; freehand sketching; weld symbols and how to apply them.

442 Welding

442-120 Related Welding-Indust Mech **2 cr**

The purpose of this course is to help the students acquire the basic welding skills in oxyacetylene welding, Shielded Metal Arc Welding (SMAW), and Gas Metal Arc Welding (GMAW). It is a hands-on self-paced learning environment to learn basic welding skills and safe welding practices.
Restricted to students admitted to the following program(s): Industrial Mechanic, Industrial Mechanical Tech, Manufacturing Eng Technologist, Mechanical Maintenance

442-130 Welding for Maintenance **3 cr**

This course is a basic introduction to welding concepts for industrial maintenance personnel in a hands-on lab environment. MIG welding will be the main emphasis of the course along with an introduction to Stick and TIG processes. Plasma cutting and Torch skills will also be included.

442-301 Welding Metallurgy **2 cr**

The purpose of this course is to help students acquire basic metallurgy knowledge that will be useful in their welding careers. The students will study the types and uses of steel; modification and prediction of metal behavior; crystalline structure before and after modification; lab work focuses on using the knowledge gained.
Prerequisite(s): 442-303 Metals Technology 1 and 442-361 Basic Arc Welding and 442-362 Basic Wire-Feed Welding
Restricted to students admitted to the following program(s): Welding, Welding Fabrication

442-303 Metals Technology 1 **1 cr**

Introduces the student to a variety of technical topics related to the Welding program. Topics will include: machine settings, wire and electrode designations, drilling operations, data sheet interpretation, structural steel methods, maintenance of welding equipment, etc. Discussion will also take place on issues such as work ethics and job/work attitudes.
Prerequisite(s): 442-310 Welding Safety and Orientation
Restricted to students admitted to the following program(s): Welding, Welding Fabrication

442-304 Metals Technology 2 **1 cr**

Continuation of Metals Technology 1, 442-303, expanding on and covering a variety of technical topics related to the Welding program. Topics will include: welding theory, wire and electrode designations and selection, Welding Procedure Specification (WPS) interpretation, Welder certifications, AWS& ASME code requirements and work standards, etc. Discussion will also take place on issues such as work ethics, job/work attitudes and employer expectations.
Prerequisite(s): 442-303 Metals Technology 1
Restricted to students admitted to the following program(s): Welding, Welding Fabrication

442-307 Welding Print Reading **2 cr**

Drawing fundamentals related to 2 and 3 view drawings; visual projection methods; freehand sketching; weld symbols and how to apply them. Interpret weld blueprints according to industry standards.
Restricted to students admitted to the following program(s): Intro to Gas Metal Arc Welding, Welding, Welding Fabrication

442-310 Welding Safety and Orientation **1 cr**

Introduces welding safety and standard operating procedures on equipment commonly used in welding labs/shops and on tools received in student's toolbox. Students will be able to receive an OSHA 10 safety certificate.
Restricted to students admitted to the following program(s): Intro to Gas Metal Arc Welding, Welding, Welding Fabrication

442-313 Welding-Automotive Technician **1 cr**

The purpose of this course is to help the students acquire basic welding skills on light gauge metals and other materials used in the automobile industry by using oxyacetylene welding, Shielded Metal Arc Welding (SMAW), Gas Metal Arc Welding (GMAW), and plastic welding. It is a hands-on, self-paced learning environment to learn basic welding skills and safe welding practices.
Restricted to students admitted to the following program(s): Automotive Maint Tech, Automotive Technician

442-314 Related Welding **2 cr**

The basis of oxyacetylene, arc and wirefeed welding are covered. Laboratory work is performed to develop basic skills and learn safe welding work habits.

442-315 Welding for Auto Body **2 cr**

High strength steel is used in unibody construction; vehicle manufacturers mandate MIG welding be used on repair of all structural parts. Substantial time is devoted to light gauge metals welded with small diameter wire using a MIG welder.

442-315A Welding for Auto Collision **2 cr**

The purpose of this course is to help the students acquire basic welding skills on light gauge metals and other materials used in the automobile industry by using oxyacetylene welding, Shielded Metal Arc Welding (SMAW), Gas Metal Arc Welding (GMAW), and plastic welding. It is a hands-on self-paced learning environment to learn basic welding skills and safe welding practices. May get into course with instructor approval if you are not a program or pre-program student.
Restricted to students admitted to the following program(s): Auto -Collision Repair

442-320 Related Welding, Advanced **2 cr**

Advanced techniques including out-of-position arc and oxy-acetylene welding; TIG and MIG welding of aluminum and stainless steel.
Prerequisite(s): 442-314 Related Welding

442-350 Pipe Welding **4 cr**

Basic pipe welding skills; several types of welds are made in different positions using stick electrodes, wire feed (MIG) and (TIG) welding of stainless steel pipe. (8 weeks)
Prerequisite(s): 442-310 Welding Safety and Orientation and 442-364 Gas Tungsten Arc Welding and 442-366 Advanced Arc Welding and 442-373 Welding Applications
Restricted to students admitted to the following program(s): Welding Fabrication

442-355 Basic GMAW Flat Position **1 cr**

Introduction to Gas Metal Arc Welding (GMAW, wire-feed welding, MIG). Develop skills with solid wire GMAW short-circuit transfer in various positions and joint designs in the flat position.

442-360 Robotic Welding **2 cr**

Safety; setup; programming; and operation of a welding robot. Variables and problems will be studied and solutions applied to provide a practical, efficient application of the GMAW (gas metal arc welding) process to an automated system.
Prerequisite(s): 442-361 Basic Arc Welding and 442-363 Adv Wire-Feed Welding
Restricted to students admitted to the following program(s): Welding, Welding Fabrication

442-361 Basic Arc Welding **4 cr**

This course includes basic welding; design and selection of welding processes. The laboratory experience enables the development of skills in basic Shielded Metal Arc Welding (SMAW, arc welding, stick welding); metal cutting procedures. This class requires the purchase of approximately $540 in tools and equipment.
Prerequisite(s): 442-303 Metals Technology 1 and 442-307 Welding Print Reading and 442-310 Welding Safety and Orientation
Restricted to students admitted to the following program(s): Welding, Welding Fabrication

442-362 Basic Wire-Feed Welding **4 cr**

Introduction to Gas Metal Arc Welding (GMAW, wire-feed welding, MIG). Develop skills with solid wire GMAW short-circuit transfer in various positions and joint designs.
Prerequisite(s): 442-303 Metals Technology 1 and 442-307 Welding Print Reading and 442-310 Welding Safety and Orientation
Restricted to students admitted to the following program(s): Intro to Gas Metal Arc Welding, Welding, Welding Fabrication

442-363 Adv Wire-Feed Welding **4 cr**

Continuation of Basic Wire-Feed Welding. Gas Metal Arc Welding (GMAW, wire-feed welding, MIG) using spray transfer, pulse GMAW, flux-cored wire, aluminum, and stainless steel wire on various metals and joint designs. Destructive and nondestructive testing methods; welding codes and certification.
Prerequisite(s): 442-310 Welding Safety and Orientation and 442-362 Basic Wire-Feed Welding
Restricted to students admitted to the following program(s): Welding, Welding Fabrication

442-364 Gas Tungsten Arc Welding **4 cr**

Gas Tungsten Arc Welding (GTAW, TIG), of aluminum, stainless steels and carbon steels. Weld exercises performed on all three types of material in various positions and joint designs. Purge welding of stainless steel pipe both in the fixed position and rolled flat position.
Prerequisite(s): 442-310 Welding Safety and Orientation
Restricted to students admitted to the following program(s): Welding, Welding Fabrication

442-365 Welding Rigging/Forklift Trng **2 cr**

This course is for welding program students to gain knowledge and hands-on experience in several industrial topics of the welding field. The use of jib cranes and the rigging involved for lifting or moving materials and working safely around different types of cranes both in a shop environment and in the field. Forklift training and safety issues for operating a forklift on the job site. The students will discuss OSHA safety requirements for the welding industry and participate in fire extinguisher training. Discussion of lean manufacturing processes and issues utilized in today's manufacturing industry.
Restricted to students admitted to the following program(s): Welding, Welding Fabrication

442-366 Advanced Arc Welding **4 cr**

Continuation of basic Shielded Metal Arc Welding (SMAW, arc welding, stick welding). Refine and develop new skills in Shielded Metal Arc Welding (SMAW, arc welding, stick welding) in out-of-position plate welding using fast freeze, low hydrogen, and iron power electrodes. Weld certification in 3G and 4G structural steel using E7018 electrodes.
Prerequisite(s): 442-310 Welding Safety and Orientation and 442-361 Basic Arc Welding
Restricted to students admitted to the following program(s): Welding, Welding Fabrication

442-371 Advanced Robotic Welding **3 cr**

This course covers safety, setup, programming, and operation of a welding robot. Variables and problems will be studied and solutions applied to provide a practical, efficient application of the GMAW (gas metal arc welding) process and fixturing to an automated system. There will be the use of coordinated motion and offline programming.
Prerequisite(s): 457-360 Advanced Processes
Restricted to students admitted to the following program(s): Welding Fabrication

442-373 Welding Applications **4 cr**

This course incorporates welding applications for exotic materials and welding skill refinement. Students will need to identify materials to be welded, choose the proper welding process, develop a welding procedure (WPS) according to a welding code, and successfully join the materials identified for a given application.
Prerequisite(s): 442-310 Welding Safety and Orientation and 442-350 Pipe Welding and 457-372 NDT and Welding Codes
Restricted to students admitted to the following program(s): Welding Fabrication

442-380 Industrial Skills Welders **2 cr**

In this course the student will develop math skills and job seeking skills of the welding career to meet the demand of today's industry. Application based math topics will address fractions, decimals, fraction conversion to decimals and metric equivalents, geometry and trig formulas as well as algebraic problem solving. The student will use blueprints for layout calculations and technics. The student will also develop job seeking skills such as: employment search, resumes, application forms, and employer interviews.
Restricted to students admitted to the following program(s): Intro- to GMAW, Welding, Welding - Full-time PM, Welding - Part-Time PM, Welding Fabrication

457 Metal Fabrication

457-360 Advanced Processes **2 cr**

This course will provide the student with an understanding and practical applications of the automated manufacturing processes used in the fabricating industry. Applications of CNC plasma tables, water jet cutting systems, laser welding and cutting, friction welding applications, and more will be explored and utilized.
Prerequisite(s): 442-310 Welding Safety and Orientation
Corequisite(s): 457-361 Advanced Fabrication I, 606-135 SolidWorks for Welders
Restricted to students admitted to the following program(s): Welding Fabrication

457-361 Advanced Fabrication I **3 cr**

Advanced metal fabrication developing assembly and sub-assemblies from working prints using various fabrication processes, such as; rigging and lifting, distortion control, fabrication tables, and CNC equipment programming will be incorporated.
Prerequisite(s): 442-310 Welding Safety and Orientation and 442-365 Welding Rigging/Forklift Trng
Corequisite(s): 457-360 Advanced Processes, 606-135 SolidWorks for Welders
Restricted to students admitted to the following program(s): Welding Fabrication

457-370 Advanced Fabrication 2 **3 cr**

Continuation of Advanced Fabrication 1 incorporating the Basic CAD design project developed by the students. The fabrication of the CAD project will be done in a team production situation using the advanced processes available.
Prerequisite(s): 457-361 Advanced Fabrication I and 606-135 SolidWorks for Welders
Restricted to students admitted to the following program(s): Welding Fabrication

457-372 NDT and Welding Codes **2 cr**

Students will learn that Nondestructive Testing (NDT) is a very broad, interdisciplinary field that plays a critical role in assuring that structural components and systems meet specified requirements. NDT allows parts and materials to be inspected and measured without damaging them and provides an excellent balance between quality control and production. Students will apply the inspection and production processes according to the welding codes used in industry.
Prerequisite(s): 442-373 Welding Applications
Restricted to students admitted to the following program(s): Welding Fabrication

457-380 Layout and Fabrication 1/CNC **3 cr**

Gain skills in laying out projects from shop sketches or blueprints used in the welding industry; development of templates or patterns and various shop shortcuts. Students will obtain the knowledge of operating different CNC metal fabrication equipment that pertains to the welding industry. Emphasis will be placed on safety, start-up, loading, and efficient operation of the CNC plasma table, CNC shear, CNC break press, and other related equipment to fabricate and assemble projects.
Prerequisite(s): 442-307 Welding Print Reading and 442-310 Welding Safety and Orientation and 442-380 Industrial Skills Welders
Restricted to students admitted to the following program(s): Welding, Welding Fabrication

457-381 Layout and Fabrication 2 **2 cr**

This is a continuation of 457-380 Layout and Fabrication I, meant to develop layout and problem-solving skills with more complex projects and design work. Make parts/projects using CNC metal fabrication equipment that pertains to the welding industry, which will then be assembled, welded, and ground off prior to painting.
Prerequisite(s): 457-380 Layout and Fabrication 1/CNC and 442-363 Adv Wire-Feed Welding and 442-366 Advanced Arc Welding and 442-310 Welding Safety and Orientation
Restricted to students admitted to the following program(s): Welding, Welding Fabrication

458 Commercial Driving

458-100 CDL License Training **4 cr**

Provides skills related to earning a CDL for students whose primary career is not driving. Pre-trip inspection procedure, laws, backing exercises, shifting and driving techniques with a tractor trailer and straight truck are covered.
Restricted to students admitted to the following program(s): Landscape Plant Turf Mgmt

458-306 CDL License Training **3 cr**

Provides skills related to earning a CDL for students whose primary career is not driving. Pre-trip inspection procedure, laws, backing exercises, shifting and driving techniques with a tractor trailer and straight truck are covered.
Restricted to students admitted to the following program(s): Agriscience Technician, Diesel Truck Technician, Electrical Power Distribution, FireMedic, Landscape Plant Turf Mgmt

458-307 CDL License Training-Online **2 cr**

Provides current rules and regulations training regarding driving a tractor-trailer through online delivery.

458-308 CDL License Training-Pre-Trip **1 cr**

Provides skills related to earning a CDL for students whose primary career is not driving. Pre-trip inspection procedures and backing exercises.
Prerequisite(s): 458-307 CDL License Training-Online and 458-309 CDL License Training - Lab

458-309 CDL License Training - Lab **1 cr**

Provides skills related to earning a CDL for students whose primary career is not driving. Pre-trip inspection, backing, shifting and driving techniques with a tractor trailer are covered.
Prerequisite(s): 458-307 CDL License Training-Online and 458-308 CDL License Training-Pre-Trip

458-339 CDL Straight Truck-Program **3 cr**

This set of competencies is designed to prepare program students for a Class B Commercial D drivers license.

458-341 Truck Driving 1 **4 cr**

Covers the laws pertaining to the operation of a commercial motor vehicle (CMV). This course also focuses on how to properly inspect a CMV and how to operate one safely. Each student progresses according to his or her own abilities with the assistance of an instructor. Student must be 18 years of age when class begins. This course is not eligible for financial aid.
Corequisite(s): 458-342 Truck Driving 2, 458-343 Truck Driving 3, 458-344 Truck Driving 4
Restricted to students admitted to the following program(s): Truck Driving

458-342 Truck Driving 2 **3 cr**

Focuses on understanding the paperwork connected with the trucking industry. This course also covers communication skills and security issues. Student must be 18 years of age when class begins. This course is not eligible for financial aid.
Corequisite(s): 458-341 Truck Driving 1, 458-343 Truck Driving 3, 458-344 Truck Driving 4
Restricted to students admitted to the following program(s): Truck Driving

458-343 Truck Driving 3 **3 cr**

Further prepares students to obtain a commercial driver's license. Learners have the opportunity to plan trips and manage loading procedures. Weight distribution techniques and security issues are also discussed. Student must be 18 years of age when class begins. This course is not eligible for financial aid.
Corequisite(s): 458-341 Truck Driving 1, 458-342 Truck Driving 2, 458-344 Truck Driving 4
Restricted to students admitted to the following program(s): Truck Driving

458-344 Truck Driving 4 **2 cr**

Focuses on continuous improvement. This course is designed for students who have successfully obtained a commercial driver's license. Operating skills and the role of a professional truck driver are stressed. Student must be 18 years of age when class begins. This course is not eligible for financial aid.
Corequisite(s): 458-341 Truck Driving 1, 458-342 Truck Driving 2, 458-343 Truck Driving 3
Restricted to students admitted to the following program(s): Truck Driving

461 Small Engine & Chassis Mechanic

461-310 Basic Engines/Systems,Intro to **5 cr**

This course is a prerequisite for all snowmobile/ATV, marine outboard, and marine inboard courses. It includes safety, precision instruments and engine basics, carburetor and EFI theory, service and testing, electrical and ignition theory, and service procedures. Factory certification is obtained on Briggs and Stratton power equipment. This course requires the purchase of approximately $1,500 in tools and/or equipment.
Prerequisite(s): 461-312 Engine Theory 1
Restricted to students admitted to the following program(s): Motorcycle, Marine & Outdoor P

461-312 Engine Theory 1 **2 cr**

This course will provide the student with basic knowledge of concepts and principles in the design and operation of small engines. Students will study the material corresponding with the type of engine class they are enrolled in.
Prerequisite(s): 461-310 Basic Engines/Systems,Intro to

461-313 Engine Theory 2 **2 cr**

This course is a continuation of Engine Theory 1. Students will receive instruction that corresponds with the type of engine class they are currently enrolled in.
Prerequisite(s): 461-310 Basic Engines/Systems,Intro to and 461-312 Engine Theory 1

461-314 Engine Theory 3 **1 cr**

This course is a continuation of Engine Theory 1 and Engine Theory 2. Students will receive instruction that corresponds with the last type of engine class required to complete the program.
Prerequisite(s): 461-310 Basic Engines/Systems,Intro to and 461-313 Engine Theory 2

461-320 Snowmobiles & ATVs **5 cr**

This course is designed to give the student the fundamentals of the snowmobile/ATV fuel, electrical, clutch, chassis, engine, and tune-up of a snowmobile/ATV. It covers integral and external fuel pump types, both engine and chassis electrical systems, drive and driven clutch assemblies, front- and rear-suspension types, and track assembly service.
Prerequisite(s): 461-312 Engine Theory 1 and 461-310 Basic Engines/Systems,Intro to

461-330 Marine Outboards **5 cr**

This course will give the student a fundamental understanding of marine and outboard fuel, cooling, power trim unit, gear case assemblies, powerhead rebuilding, dyno testing, and ignition systems. The course includes both Mercury and Outboard Marine Corporation fuel, cooling system theory, water pump rebuilding, tank testing, power trim and tilt service and overhaul, gear case rebuilding, shimming and testing of various gear cases, disassembly measuring, and reassembly of various powerheads. Students will evaluate horsepower, throttle response, and troubleshooting by dyno testing, point-coil, battery, CDI ignition theory and identification, operating various test equipment, and diagnosing ignition components.
Prerequisite(s): 461-310 Basic Engines/Systems,Intro to and 461-312 Engine Theory 1

461-340 Marine Inboards **5 cr**

This course is designed to give the student a fundamental understanding of marine inboard/outboard outdrive service. It covers four-cylinder, six-cylinder, and eight-cylinder marine engine tune-up, battery ignition and transistorized ignition systems service and maintenance, service procedures for cylinders, pistons, rings, connecting rods, cylinder heads, and valve trains, complete overhaul of outdrive, shimming of gears, dyno testing for performing winterization of powerhead, lower units, fuel systems, and electrical systems.
Prerequisite(s): 461-310 Basic Engines/Systems,Intro to and 461-312 Engine Theory 1

461-360 Motorcycles **5 cr**

This course is designed to give the student the fundamentals of motorcycle fuel, oil, electrical, clutch, frame, engine, wheels, suspension, and brakes. It covers pre-delivery and maintenance procedures, engine and transmission systems, clutch and belt, chain and shaft drive systems.
Prerequisite(s): 461-310 Basic Engines/Systems,Intro to and 461-312 Engine Theory 1

462 Industrial Equipment Mechanic

462-111 Mechanical Concepts **2 cr**

This course is designed to give the student a basic understanding of the mechanical concepts that are found on industrial equipment. Since all industrial machinery is equipped with some type of mechanical drive, a firm understanding of these drives is necessary for the industrial mechanic. Cleanliness and safe working habits will also be emphasized.
Restricted to students admitted to the following program(s): Industrial Mechanic, Industrial Mechanical Tech, Mechanical Maintenance, Pumping Systems Maintenance

462-115 Industrial PC Network Concepts **2 cr**

The learner will develop skills in working with PC's to connect to PLC's, Internet of Things (IoT) equipment. Program IoT systems for discrete and network communications. Produce basic documents for preventive maintenance, share documents, use remote access and web based tools and locate resources using internet tools.
Restricted to students admitted to the following program(s): Industrial Mechanic, Industrial Mechanical Tech, Mechanical Maintenance

462-118 Industrial Electric Principles **3 cr**

In this course the student will learn the fundamental theory and application of DC and AC electrical circuits, industrial three-phase motor control circuits, electrical wiring, troubleshooting and testing common electrical control circuits found in industry.
Restricted to students admitted to the following program(s): Electrical Maintenance, Industrial Mechanic, Industrial Mechanical Tech

462-119 Industrial Mechanical Skills **2 cr**

In this course the student will develop precision measurement and applied math skills to meet the demand of today's industry. Application based math topics will address fractions, decimals, fraction conversion to decimals and metric equivalents, geometry and trig formulas, as well as algebraic problem solving. The student will use gauges; micrometers dial calipers and other measurement devices.
Restricted to students admitted to the following program(s): Industrial Mechanic, Industrial Mechanical Tech, Mechanical Maintenance

462-120 Centrifugal Pumps & Alignment **3 cr**

This course is designed to give the student understanding and experience with various types of industrial pumps and drive mechanisms. Basic understanding of centrifugal pumps, theory of operation, installation, maintenance and troubleshooting of pumps and their systems. Students will work with Laser Alignment, and advanced linear slides and brakes and clutches. The course is presented in the individual study mode to allow the students flexibility in scheduling their time.
Prerequisite(s): 462-126 Mechanical Alignment & Bearing
Restricted to students admitted to the following program(s): Electrical Maintenance, Industrial Mechanic, Industrial Mechanical Tech, Pumping Systems Maintenance

462-121 IOT Automated Manufacturing **4 cr**

This course is designed to give the student understanding and experience with various types of automated equipment. Proper Lock-out & Tag-out and troubleshooting Motors and Motor Drives. The set-up and operation of the machinery and repair of such equipment and components on the equipment will be performed. Projects of function, troubleshooting, and repair will be the prime emphasis. Explore connectivity to networks and Internet of Things (IoT) with Industrial controls.
Prerequisite(s): 462-118 Industrial Electric Principles
Restricted to students admitted to the following program(s): Electrical Maintenance, Electrical System Maintenance, Industrial Mechanic, Industrial Mechanical Tech

462-122 Prev and Periodic Maintenance **1 cr**

This course is designed to give the student the opportunity to research the items to be inspected in a preventive maintenance program. Students develop preventive maintenance schedules and perform actual inspections of mechanical, fluid power, and electrical systems. Techniques for troubleshooting and predictive diagnostics are explored.
Prerequisite(s): 462-111 Mechanical Concepts
Restricted to students admitted to the following program(s): Industrial Mechanic, Industrial Mechanical Tech

462-123 PLC Manufacturing Applications **3 cr**

This course is designed to use the basic and advanced electrical and electronic control devices in control simulated and actual automated industrial machines. Set up, operation, and system troubleshooting of PLC and, Internet of Things (IoT) devices will be emphasized. PLC operations, programming and troubleshooting. Connectivity to Internet of Things (IoT) with Industrial controls components will be investigated.
Prerequisite(s): 462-121 IOT Automated Manufacturing
Restricted to students admitted to the following program(s): Electrical Maintenance, Electrical System Maintenance, Industrial Mechanic, Industrial Mechanical Tech

462-126 Mechanical Alignment & Bearing **2 cr**

This course is designed to give the student a basic understanding of the mechanical concepts that are found on industrial equipment. Topics focus on alignment of shafts, and correct servicing of bearings. Since all industrial machinery is equipped with some type of mechanical drive, a firm understanding of these drives is necessary for the industrial mechanic. Cleanliness and safe working habits will also be emphasized.
Prerequisite(s): 462-111 Mechanical Concepts and 462-119 Industrial Mechanical Skills
Restricted to students admitted to the following program(s): Electrical Maintenance, Industrial Mechanic, Industrial Mechanical Tech, Mechanical Maintenance, Pumping Systems Maintenance

462-130 Mfg Prints & Networks **1 cr**

This course prepares students to create and interpret technical documents. Identifying symbols in electrical, networking/Internet of Things (IoT), piping, hydraulic, pneumatic, HVAC and sketching diagrams is addressed. Students create job related written documents (such as work orders and resumes) to meet the needs of the industry.
Restricted to students admitted to the following program(s): Industrial Mechanic, Industrial Mechanical Tech, Mechanical Maintenance, Pumping Systems Maintenance

462-131 Machine Trblshoot Practicum **2 cr**

This course is designed to give the student understanding and experience in machine troubleshooting. Methods of analyzing equipment failure will be investigated. Techniques for machine repair will be performed with the integration of each of four major disciplines in machine operation. The course is presented in the individual study mode to allow the students flexibility in scheduling their time.
Prerequisite(s): 462-120 Centrifugal Pumps & Alignment and 462-121 IOT Automated Manufacturing and 462-122 Prev and Periodic Maintenance and (462-123 PLC Manufacturing Applications and 462-124 Industrial Mechanics Document)

462-132 Mach Trbleshting & Repair Adv **2 cr**

This course is designed to develop the troubleshooting process applied to electrical, mechanical, hydraulic, pneumatic, and networked / Internet of Things (IoT) equipment. System and component troubleshooting applying top-down, divide-conquer, and backward approaches are covered. Learners will test and repair systems at the component, system and network level.
Prerequisite(s): 462-120 Centrifugal Pumps & Alignment and (462-123 PLC Manufacturing Applications and 419-102 Hydraulic System Operations and 419-118 Pneumatic System Operations)
Restricted to students admitted to the following program(s): Industrial Mechanic, Industrial Mechanical Tech

462-140 Piping Systems **2 cr**

This course is designed to give the student understanding and experience on how to select, size, identify, and install a variety of piping, fittings and valves used in air, water and other process systems. Topics include iron pipe, steel tubing, hydraulic hose, plastic pipe, copper tubing and globe, gate, check and Sloan valves.
Prerequisite(s): 462-120 Centrifugal Pumps & Alignment
Restricted to students admitted to the following program(s): Industrial Mechanical Tech

462-141 Process Ctrl & Wtr Trtmnt Sys **2 cr**

Course provides a "hands-on" approach to the study of fluid handling systems. A wide variety of system components including pumps, piping, seals and packing, flow control devices, flow measuring devices and pressure vessels will be studied. Practice of installation, alignment, servicing and troubleshooting of process systems.
Prerequisite(s): 462-120 Centrifugal Pumps & Alignment and 462-123 PLC Manufacturing Applications and 462-140 Piping Systems
Restricted to students admitted to the following program(s): Industrial Mechanical Tech

462-150 Building System Maintenance **2 cr**

This course is designed to give the student an understanding of heating, cooling, lighting, security and other systems found in facility maintenance. Preventive maintenance, ordering, rigging considerations are examined.
Prerequisite(s): 462-123 PLC Manufacturing Applications
Restricted to students admitted to the following program(s): Industrial Mechanical Tech

462-151 New Technologies in Ind. Maint **2 cr**

Technology continues to change the Industrial Maintenance landscape. This course will explore new technologies, update skills and determine the benefits of new processes. Topics will to reflect the needs of industry in relation to advances in Controls, PLC's, Motor/Drives, Process Control and hybrid technologies used in industry.
Prerequisite(s): 462-120 Centrifugal Pumps & Alignment and 462-123 PLC Manufacturing Applications and 462-150 Building System Maintenance
Restricted to students admitted to the following program(s): Industrial Mechanical Tech

475 Construction Worker

475-103 Construction Safety **2 cr**

This is a course that starts 2 weeks before the fall semester program courses for Residential Construction. This course is a prerequisite to all Residential Construction Courses and the student will need to pass the Construction Safety course to start the remaining first semester courses. The major emphasis will be on machine, power, and hand tool safety. Job site safety, ladders, scaffolding, and Occupational Safety and Health Administration (OSHA) standards will also be covered. This course also introduces the student to the basic methods of floor, wall, and basic roof framing. The students will build small storage sheds for the main lab projects. Students will also complete an OSHA 10-hour general construction training course. Certificate awarded on completion of training.
Restricted to students admitted to the following program(s): Residential Construction

475-110 Frming Mthods/Bldng the Envlpe **4 cr**

This is a first-semester course with an emphasis on residential construction. Fundamentals of planning, layout, and rough framing are basic to the course. This course introduces the student to the basic methods of floor framing with dimensional lumber, I joists, and floor trusses. Proper methods of wall framing and sheathing installation are covered. Proper methods of producing a well-built, air-tight home will be covered in this course. It will cover proper home seal up, window and door installation, insulation, ventilation, and the importance of the drainage plane behind siding. At the conclusion of this course, the students should have developed the skills to frame a structure and apply the "Energy Star and Green Certification" requirements to residential construction.
Prerequisite(s): (475-103 Construction Safety or 475-105 Explore Construction Safety) or 475-100 Construction Safety
Corequisite(s): 475-111 Frmng Mthds/Bldng the Envl Lab, 475-112 Const Basics & Print Reading, 475-115 Roof Systems and Stairs
Restricted to students admitted to the following program(s): Residential Construction

475-111 Frmng Mthds/Bldng the Envl Lab **5 cr**

Students will develop skills and apply concepts and practices from the areas outlined in the course 475-110 Framing Methods/Building the Envelope. In this course, the installation of the roof system at the on-site project will be done. The main lab project is the construction of a single or multi-family dwelling on a real job site. At the conclusion of this course, students should have developed skills to frame a structure and apply the "Energy Star and Green Certification" requirements to residential construction.
Prerequisite(s): 475-103 Construction Safety or (475-105 Explore Construction Safety or 475-100 Construction Safety)
Corequisite(s): 475-110 Frming Mthods/Bldng the Envlpe, 475-112 Const Basics & Print Reading, 475-115 Roof Systems and Stairs
Restricted to students admitted to the following program(s): Residential Construction

475-112 Const Basics & Print Reading **2 cr**

During this course you will start with basic construction language, symbols, and print reading fundamentals. The main emphasis of this course will be to prepare the students to function at the job site when reading and interpreting construction drawings and framing plans. Proper use of the architect's scales and their uses will be taught. Applied math skills used in the construction industry will be covered as well.
Prerequisite(s): 475-103 Construction Safety or (475-105 Explore Construction Safety or 475-100 Construction Safety)
Corequisite(s): 475-110 Frming Mthods/Bldng the Envlpe, 475-111 Frmng Mthds/Bldng the Envl Lab, 475-115 Roof Systems and Stairs
Restricted to students admitted to the following program(s): Residential Construction

475-115 Roof Systems and Stairs **3 cr**

The major emphasis of this course will be on roof systems from hand framing simple gable roofs to advanced intersecting roofs using trusses. The students will calculate the math, layout and cut practice hand framed rafters. They will be involved with many different types of roof problems including hip and valley roof systems. Understanding and installing truss packages at the on-site project is also included. Stair system's layout and design to proper installation will be covered. Stair terminology and the application of the building codes also taught. The students will calculate, layout and cut practice stair stringers in the lab. Design, layout and installing of the stair systems at the on-site project is also included.
Prerequisite(s): 475-103 Construction Safety or (475-105 Explore Construction Safety or 475-100 Construction Safety)
Corequisite(s): 475-110 Frming Mthods/Bldng the Envlpe, 475-111 Frmng Mthds/Bldng the Envl Lab, 475-112 Const Basics & Print Reading
Restricted to students admitted to the following program(s): Residential Construction

475-120 Finish Carpentry Int/Ext **4 cr**

This course introduces the student to the basic methods of selecting and installing interior trim, doors, and cabinets. Layout and installation of finish stair materials and decorative railings will also be taught. Material selection and the product installation requirements will be covered. This course also introduces the student to the basic methods of selecting and installing exterior soffit and wall finishes as well as building decks. Material selections and the different installation requirements will be covered. At the conclusion of this construction of a single or multi-family dwelling on a real job site.
Prerequisite(s): (475-103 Construction Safety or 475-105 Explore Construction Safety or 475-100 Construction Safety) and 475-110 Frming Mthods/Bldng the Envlpe and 475-111 Frmng Mthds/Bldng the Envl Lab and 475-112 Const Basics & Print Reading and 475-115 Roof Systems and Stairs
Corequisite(s): 475-121 Finish Carpentry Int/Ext Lab, 475-124 Construction Planning, 475-125 Est Residential Construction

475-121 Finish Carpentry Int/Ext Lab **5 cr**

This course introduces the student to the basic methods of selecting and installing interior trim, doors, and cabinets. Layout and installation of finish stair materials and decorative railings will also be taught. Material selections and the product installation requirements will be covered. This course also introduces the student to the basic methods of selecting and installing exterior soffit and wall finishes as well as building decks. Material selections and the different installation requirements will be covered. At the conclusion of this course, the student should have developed the skills to finish the interior/exterior of most residential buildings.

Prerequisite(s): (475-103 Construction Safety or 475-100 Construction Safety or 475-105 Explore Construction Safety) and 475-110 Frming Mthods/Bldng the Envlpe and 475-111 Frmng Mthds/Bldng the Envl Lab and 475-112 Const Basics & Print Reading and 475-115 Roof Systems and Stairs

Corequisite(s): 475-120 Finish Carpentry Int/Ext, 475-124 Construction Planning, 475-125 Est Residential Construction

475-124 Construction Planning **2 cr**

Construction planning involves the many facets of residential design and construction. Building standards, design and structural loading is taught. Building requirements for "Energy Star Homes" and "Green Built" certification will be covered in this course. Kitchen planning, window schedules, and reading plot plans and site elevations are taught.

Prerequisite(s): (475-103 Construction Safety or 475-100 Construction Safety or 475-105 Explore Construction Safety) and 475-110 Frming Mthods/Bldng the Envlpe and 475-111 Frmng Mthds/Bldng the Envl Lab and 475-112 Const Basics & Print Reading and 475-115 Roof Systems and Stairs

Corequisite(s): 475-120 Finish Carpentry Int/Ext, 475-121 Finish Carpentry Int/Ext Lab, 475-125 Est Residential Construction

475-125 Est Residential Construction **3 cr**

This course introduces the student to the basic methods of estimating light building construction and develops a system for doing quantity take off of materials. The student should develop skills to complete carpentry materials and labor. Material board feet, square feet and lineal foot pricing will be taught. At the conclusion of this course, the student should have developed the skills to complete preliminary material and labor estimates for residential construction.

Prerequisite(s): (475-103 Construction Safety or 475-100 Construction Safety or 475-105 Explore Construction Safety) and 475-110 Frming Mthods/Bldng the Envlpe and 475-111 Frmng Mthds/Bldng the Envl Lab and 475-112 Const Basics & Print Reading and 475-115 Roof Systems and Stairs

Corequisite(s): 475-120 Finish Carpentry Int/Ext, 475-121 Finish Carpentry Int/Ext Lab, 475-124 Construction Planning

501 Medical Terminology

501-101 Medical Terminology **3 cr**

This course focuses on the component parts of medical terms: prefixes, suffixes, and word roots. Students practice formation, analysis, and reconstruction of terms. Emphasis on spelling, definition, and pronunciation. Introduction to operative, diagnostic, therapeutic, and symptomatic terminology of all body systems, as well as systemic and surgical terminology.

501-107 Digital Literacy Healthcare **2 cr**

The focus of this course is the use of technology in healthcare. Learners use common business software applications, including word processing, presentation, spreadsheet, and databases. Communication methods using technology are addressed. Learners gain experience with using the electronic health record (EHR). Healthcare EHR security issues, social media use, and digital healthcare resources are examined.
Restricted to students admitted to the following program(s): Central Service Asst, Medical Assistant

501-120 Medical Office Computing **2 cr**

Learners develop introductory skills for using computers in the medical office setting. The types of hardware and software typically found in the medical office are discussed along with maintenance and keyboarding ergonomics. Students will learn the functionality of Windows, the Internet, Microsoft Word, Excel, Outlook, and an electronic medical record. Using these software programs, students will practice activities related to medical office duties such as managing files and folders, creating Word documents, mail merge, attaching documents to emails, internet searches, creating calculated spreadsheets, entering patient information into the electronic medical record and retrieving data from the electronic medical record.
Restricted to students admitted to the following program(s): Medical Assistant

501-130 Healthcare IT **2 cr**

Learners explore the use of technology in healthcare, including common business software applications, healthcare databases, administrative and clinical information systems, and the electronic health record (EHR). Learners use EHR simulation software to perform administrative and clinical documentation functions. Health information privacy and security regulations (HIPAA) and the EHR patient portal are examined.
Corequisite(s): 530-107 HIMT Fundamentals
Restricted to students admitted to the following program(s): Health Info Management & Tech, Health Information Technology

501-308 Pharmacology for Allied Health **2 cr**

Introduces students to classifying medications into correct drug categories and applying basic pharmacology principles. Students apply basic pharmacodynamics to identifying common medications, medication preparation, and administration of medications used by the major body systems.
Prerequisite(s): (501-101 Medical Terminology or 530-153 Medical Terminology I) and (501-107 Digital Literacy Healthcare or 501-120 Medical Office Computing) and 509-302 Human Body in Health & Disease and 509-303 Medical Asst Lab Procedures 1 and 509-304 Medical Asst Clin Procedures 1 and (509-309 Medical Law, Ethics & Profess and 509-301 Medical Asst Admin Procedures and 509-307 Med Office Insurance & Finance) and (801-195 Written Communication or 801-136 English Composition 1 or 801-219 English Composition 1)
Corequisite(s): 509-305 Med Asst Lab Procedures 2, 509-306 Med Asst Clin Procedures 2, 509-310 Medical Assistant Practicum
Restricted to students admitted to the following program(s): Medical Assistant

502 Barbering/Cosmetology

502-301 Haircutting 1 **3 cr**

Topics of this course include the history of cosmetology, exploring career pathways, basic techniques and principles used in male and female haircutting, client consultation procedures, safety and sanitation procedures, and professionalism. This course will also introduce basic product knowledge and retail skills.
Corequisite(s): 502-304 Haircutting 2, 502-310 Chemical Services 1
Restricted to students admitted to the following program(s): Cosmetology

502-304 Haircutting 2 **3 cr**

Topics of this course include intermediate techniques and principles used in hair cutting, ethnic hair cutting techniques, client consultation procedures, safety and sanitation procedures, mustache and beard trimming, outline and face shaving, and identifying face shapes to create appropriate style.
Prerequisite(s): 502-310 Chemical Services 1 and 502-320 Nail Technology and 806-323 Salon Science 1
Corequisite(s): 502-301 Haircutting 1, 502-321 Salon Services 1, 806-324 Salon Science 2
Restricted to students admitted to the following program(s): Cosmetology

502-305 Haircutting 3 **2 cr**

This course will provide students with advanced female and male haircutting techniques, trend cutting techniques, client make-over techniques, safety and sanitation procedures and professionalism.
Prerequisite(s): 502-301 Haircutting 1 and 502-304 Haircutting 2 and 502-310 Chemical Services 1 and 502-320 Nail Technology and 502-321 Salon Services 1 and (806-323 Salon Science 1 and 806-324 Salon Science 2 or 806-321 Salon Science) and (502-314 Chemical Services 2 and 502-322 Salon Services 2)

502-310 Chemical Services 1 **3 cr**

Topics of this course include intermediate techniques and principles used in texture services and hair coloring. Fundamentals of this would include safety and sanitation procedures, client consultation procedures, shampooing procedures, sectioning techniques, wrapping techniques, temporary coloring techniques, semi/demi coloring techniques, permanent hair coloring techniques, and hair removal techniques related to facial waxing services.
Corequisite(s): 502-301 Haircutting 1
Restricted to students admitted to the following program(s): Cosmetology

502-311 Hair Styling **2 cr**

This course provides a general knowledge of hairstyling and finishing techniques. Fundamentals will include: product knowledge, wet styling, thermal styling, basic braiding, wig styling, extensions, updo techniques, and blow dry styling.
Prerequisite(s): 502-314 Chemical Services 2 and 502-322 Salon Services 2 and 502-326 Salon Services Lab
Corequisite(s): 502-323 Salon Services 3

502-314 Chemical Services 2 **3 cr**

Topics of this course include advanced coloring procedures and texture service procedures. Fundamentals include bleaching techniques, tipping and highlighting techniques, color correction techniques, toning techniques, chemical relaxing techniques, product knowledge of thioglycolate and sodium hydroxide relaxer chemicals.
Prerequisite(s): 502-301 Haircutting 1 and 502-304 Haircutting 2 and 502-310 Chemical Services 1 and 502-320 Nail Technology and 502-321 Salon Services 1 and 806-324 Salon Science 2 and 502-322 Salon Services 2

502-320 Nail Technology **2 cr**

Hand and nail care, including nail enhancements, nail care, pedicures, and manicures. Fundamentals will include basic nail terminology, basic acrylics, basic nail design, product knowledge, and safety and sanitation practices.
Corequisite(s): 806-323 Salon Science 1
Restricted to students admitted to the following program(s): Cosmetology, Nail Technician

502-321 Salon Services 1 **4 cr**

This course will provide students with hands-on training using fundamentals of hair cutting, perm waving, color, and nail techniques, while practicing safety and sanitation procedures and professionalism. This course will be taught in a lab setting providing barber/cosmetology services to the public. Product knowledge and retail skills will also be practiced.
Prerequisite(s): 502-301 Haircutting 1 and 502-310 Chemical Services 1 and 502-320 Nail Technology and 806-323 Salon Science 1
Corequisite(s): 502-304 Haircutting 2, 806-324 Salon Science 2
Restricted to students admitted to the following program(s): Cosmetology

502-322 Salon Services 2 **4 cr**

This course will provide students with hands-on training using the fundamentals of Salon Services 1 and using intermediate haircutting techniques, advanced coloring techniques, and chemical service procedures, while practicing safety and sanitation procedures and professionalism. This course will be taught in a lab setting providing cosmetology services to the public. Product knowledge and retail skills will also be practiced.
Prerequisite(s): 502-301 Haircutting 1 and 502-304 Haircutting 2 and 502-310 Chemical Services 1 and 502-320 Nail Technology and 502-321 Salon Services 1 and 806-324 Salon Science 2 and 502-314 Chemical Services 2

502-323 Salon Services 3 **4 cr**

This course will provide students with hands-on training using the fundamentals of Salon Services 1 and 2, as well as, conditioning and styling techniques. These techniques will also practice safety and sanitation techniques and professionalism. Product knowledge and retail skills will also be practiced.
Prerequisite(s): 502-314 Chemical Services 2 and 502-322 Salon Services 2 and 502-326 Salon Services Lab
Corequisite(s): 502-311 Hair Styling

502-324 Salon Services 4 **4 cr**

This course will provide students with hands-on training using the fundamentals of Salon Services 1, 2, and 3, as well as facial techniques, basic makeup application, and advanced female and male hair cutting techniques.
Prerequisite(s): 102-306 Salon Business & Mktg and 502-305 Haircutting 3 and 502-311 Hair Styling and 502-314 Chemical Services 2 and 502-322 Salon Services 2 and 502-323 Salon Services 3 and 502-326 Salon Services Lab and 502-330 Facial Services
Corequisite(s): 502-371 Advanced Salon Operations

502-325 Salon Services 5 **4 cr**

This course will provide students with hands-on applications using the fundamentals of Salon Services 1, 2, 3, and 4, as well as advanced marketing techniques, safety and sanitation, and professionalism.
Prerequisite(s): (502-305 Haircutting 3 and 502-324 Salon Services 4)
Corequisite(s): 502-371 Advanced Salon Operations

502-326 Salon Services Lab **2 cr**

This course will provide students with hands-on training using the fundamentals of Salon Services 1, using haircutting techniques, coloring techniques, beginning facial/make-up applications, and chemical service procedures, while practicing safety and sanitation procedures and professionalism. This course will be taught in a lab setting providing cosmetology services to the public. The students will build on product knowledge, retail skills, and interpersonal skills.
Prerequisite(s): 502-301 Haircutting 1 and 502-304 Haircutting 2 and 502-310 Chemical Services 1 and 502-320 Nail Technology and 502-321 Salon Services 1 and 806-324 Salon Science 2 and (502-311 Hair Styling and 502-322 Salon Services 2 and 502-323 Salon Services 3 and 502-330 Facial Services)

502-330 Facial Services **2 cr**

Topics covered in this course include: facial treatment techniques for facial treatments, packs and/or masks, facial massage movements, basic makeup application and removal, safety and sanitation procedures, and professionalism.
Restricted to students admitted to the following program(s): Cosmetology

502-331 Advanced Nail Technology **2 cr**

This course will provide students with advanced nail techniques. Fundamentals will include: nail terminology, acrylics, nail enhancements, gel services, nail design, product knowledge, and safety and sanitation procedures.
Prerequisite(s): 502-320 Nail Technology

502-332 Nail Salon Service **4 cr**

This course will provide students with hands-on training using the fundamentals of Nail Technology and Advanced Nail Technology, while practicing safety/sanitation procedures and professionalism. This course will be taught in a lab setting providing Nail Technology services to the public. Product knowledge and retail skills will also be practiced.
Prerequisite(s): 502-331 Advanced Nail Technology and 806-323 Salon Science 1

502-371 Advanced Salon Operations **2 cr**

Topics covered in this course will include: pre-training review, State laws and codes, State Board preparation, salon observations, advanced sales and marketing techniques, safety and sanitation techniques and professionalism.
Prerequisite(s): 502-301 Haircutting 1 and 502-304 Haircutting 2 and 502-310 Chemical Services 1 and 502-314 Chemical Services 2 and 502-320 Nail Technology and 502-321 Salon Services 1 and 502-322 Salon Services 2 and (806-321 Salon Science or 806-323 Salon Science 1 and 806-324 Salon Science 2) and (102-306 Salon Business & Mktg and 502-305 Haircutting 3 and 502-311 Hair Styling and 502-323 Salon Services 3 and 502-326 Salon Services Lab and 502-330 Facial Services)
Corequisite(s): 502-324 Salon Services 4

503 Fire Technology

503-105 Principles of Firefighting **3 cr**

This course introduces the student to the basic skills and techniques used in firefighting. Classroom instruction includes a variety of fire-related topics which are reinforced and enhanced through practical skills activities. The course content follows the requirements for NFPA 1001 Firefighter I. Upon completion, the student is eligible to test for state fire certification.
Restricted to students admitted to the following program(s): FireMedic

503-106 Fire Inspection Services **2 cr**

This course familiarizes the students with state and local statutes and national codes relating to fire prevention. The course requires the completion of actual inspections and pre-plans. In addition, the course has a public education section which requires students to present fire safety for all age groups.
Restricted to students admitted to the following program(s): FireMedic

503-107 Fire Dept Apparatus Ops **3 cr**

This course prepares firefighters to drive and operate fire department emergency apparatus. The course presents theories of hydraulics as applied to the fire service, with emphasis on mathematics, and formulas used in operating fire apparatus pumps. Students receive lecture and practical training on maintenance, driving, operating on-board pumps and equipment, and apparatus testing. The course content meets the NFPA 1002 requirement for fire department pumper driver/operator.
Prerequisite(s): 503-105 Principles of Firefighting and 806-177 Gen Anatomy & Physiology
Restricted to students admitted to the following program(s): FireMedic

503-130 FireMedic Internship **1 cr**

This course allows second-year program students to actively participate as a 'working' member of a fire department. Students work the 24-hour shift schedule at one full-time local fire department, and perform the same duties as the firefighters. Evaluation is determined by fire department officials and the course instructor. Prerequisite(s): Successful completion of entrance exams: written, physical ability, physical exam, and interview.
Prerequisite(s): (503-105 Principles of Firefighting and 503-107 Fire Dept Apparatus Ops and 503-141 Special Rescue)
Restricted to students admitted to the following program(s): FireMedic

503-141 Special Rescue **2 cr**

This course introduces the various types of special rescues required by many fire/EMS organizations. Classroom presentations and practical evolutions will be conducted on Confined Space and Trench Entry and Rescue, Water Rescue, Vehicle Extrication, and High Angle Rescue.
Prerequisite(s): 503-105 Principles of Firefighting
Restricted to students admitted to the following program(s): FireMedic

503-144 Advanced Firefighting Concepts **1 cr**

This course introduces students to advanced firefighting principles covering fire behavior, risk management, teamwork, leadership, and a systems approach to initial firefighting tactics at fires. All of the practical portions of this course are conducted in a performance-based, training in context manner to assure that students develop and master a principled, response methodology management on the fire ground. Building construction, forcible entry, and fire inspection are also covered in this course. Outside fire attack and transitional positive pressure attack tactics, consistent with current evidence-based practices for strategic and tactical firefighting are practiced.
Prerequisite(s): 531-919 Paramedic Medical Emergencies
Restricted to students admitted to the following program(s): FireMedic

503-160 FireMedic Clinical Field 2 **4 cr**

This course provides the student with the opportunity to enhance his or her learning through the practice of paramedicine in the field and health care environment experiences with actual patients under the supervision of instructors or approved preceptors. Students may also have the opportunity to participate in formal high-fidelity human patient simulator experiences as a part of this course. Included in this internship students will spend time developing their skills as a "working" member of a fire department enhancing your skills and duties as a firefighter. Successful completion of this course requires the student to meet all clinical and field competency requirements at the paramedic level as defined by WI DHS EMS and CoAEMSP.
Prerequisite(s): 531-921 Special Patient Populations
Restricted to students admitted to the following program(s): FireMedic

504 Criminal Justice

504-103 LE Employment Strategies **3 cr**

This course entails essential steps in preparing and obtaining a position in the field of Law Enforcement. Students will explore the various aspects of each setting from an organizational perspective. Resume, letter of application and portfolio tools will be created. Practical applications for job interviewing will take place along with learning from area employers how to conduct a successful interview. Part of the course will be devoted to the preparation and execution of building physical agility.
Restricted to students admitted to the following program(s): Criminal Justice, Criminal Justice-Law Enforce

504-107 Law Enforcement Crisis Mgmt **3 cr**

In this course, students will learn principles, guidelines and techniques for law enforcement and others in the criminal justice field response to persons with possible mental disorders, alcohol or drug problems, dementia disorders, and/or developmental disabilities. Students will become more familiar and able to recognize traits of mental health disorders to better handle crisis situations and provide the appropriate resources to assist a person in crisis in their own communities. Students will also learn and apply the legal basis under Wisconsin law for conducting emergency detentions and emergency protective placements of persons, as well as legal requirements and practical guidelines for implementing these procedures. Students will gain awareness and explore how their own experiences in law enforcement may affect their own well-being and mental health on duty and off duty. They will learn techniques to become emotional survivors in the law enforcement/criminal justice field.
Prerequisite(s): 504-900 Intro to Criminal Justice and 504-901 Constitutional Law and 504-903 Professional Communications and 504-905 Report Writing and 504-907 Community Policing Strategies
Restricted to students admitted to the following program(s): Criminal Justice

504-121 Patrol Procedures **3 cr**

Patrol officer's role; explanation of handling usual and unusual assignments; strategies of officer survival; patrol tactics; traffic stops.
Prerequisite(s): 504-903 Professional Communications and 504-906 Criminal Investigations I and 504-907 Community Policing Strategies
Corequisite(s): 504-908 Traffic Theory
Restricted to students admitted to the following program(s): Criminal Justice, Criminal Justice-Law Enforce

504-162 Contemp. Issues in Crim. Just. **3 cr**

An examination of all levels of criminal justice system, public and private, in contemporary issues that impact on these agencies now and in the future. It will investigate futuristic challenges and concerns of these agencies as they relate to legal, social, economic, political and employment opportunities.

504-166 Criminal Justice Internship **3 cr**

Firsthand observation within a criminal justice agency of the student's choice; learning activities provided on-site with participating agencies.
Prerequisite(s): 504-900 Intro to Criminal Justice and 504-901 Constitutional Law and 504-902 Criminal Law and 504-907 Community Policing Strategies and 504-170 Corrections, Intro to
Restricted to students admitted to the following program(s): Criminal Justice

504-170 Corrections, Intro to **3 cr**

State and county correction systems; theories of corrections; historical development; alternatives to incarceration; probation and parole; how the law enforcement and corrections portions of the criminal justice system work together.

504-182 Scenario Assessment **1 cr**

A capstone course to assess the learner's cumulative knowledge through the use of scenarios in the certifiable Law Enforcement curriculum.
Prerequisite(s): 504-700 Physical Fitness and 504-701 Overview of Criminal Justice and 504-702 Overview of Patrol Response and 504-703 Overview of Tactics and 504-704 Overview of Investigations and 504-706 Principles of Tactics and 504-707 Principles of Emer Veh Respons and 504-708 Principles of Investigations and 504-709 Applications of Traffic Respon and 504-710 Applications of Investigation and 504-711 Functional Fitness for LE and 504-712 Scenario Prep - Beginner and 504-713 Scenario Prep - Intermediate
Restricted to students admitted to the following program(s): Crim Justice-Law Enf 720 Acad

504-700 Physical Fitness **1 cr**

Through classroom lecture and on-campus lab students will apply Phases I-III Health Fitness WI Department of Justice 720 Academy curriculum framework program requirements.
Restricted to students admitted to the following program(s): Crim Justice-Law Enf 720 Acad

504-701 Overview of Criminal Justice **1 cr**

Through classroom lecture and WI Department of Justice 720 Academy integration exercises, students will learn and apply skills addressed in the following WI Department of Justice 720 Academy Phase I curriculum framework topics: Academy Orientation, Fundamentals of Criminal Justice, Ethics, Cultural Competency, Agency Policy, and Professional Communication.
Restricted to students admitted to the following program(s): Crim Justice-Law Enf 720 Acad

504-702 Overview of Patrol Response **2 cr**

Through classroom lecture, and on-campus lab, and WI Department of Justice integration exercises students will learn and apply skills addressed in the following WI Department of Justice 720 Academy curriculum framework Phase I topics: Critical Thinking and Decision-Making, Basic Response (RESPOND), Radio Procedures, Introduction to TraCS, Traffic Law Enforcement, and First Aid/CPR/AED. This course will also include the WI DOJ 720 Academy Integration.

Restricted to students admitted to the following program(s): Crim Justice-Law Enf 720 Acad

504-703 Overview of Tactics **1 cr**

Through classroom lecture, and on-campus lab and WI Department of Justice 720 Academy integration exercises, students will learn and apply skills addressed in the following Department of Justice 720 Academy curriculum framework Phase I topics: Fundamentals of Firearms, Vehicle Contacts I, Officer Wellness, and DAAT. The DOJ Phase I Written Examination will be administered in this course.

Restricted to students admitted to the following program(s): Crim Justice-Law Enf 720 Acad

504-704 Overview of Investigations **2 cr**

Through classroom lecture, on-campus lab, and WI Department of Justice 720 Academy integration exercises students will learn and apply skills addressed in the following Department of Justice 720 Academy curriculum framework Phase I topics: Constitutional Law I, Crimes I, Juvenile Law I, Interviews, Report Writing, and Physical Evidence.

Restricted to students admitted to the following program(s): Crim Justice-Law Enf 720 Acad

504-705 Principles of Patrol Response **2 cr**

Through classroom lecture, and on-campus lab, and WI Department of Justice 720 Academy integration exercises students will learn and apply skills addressed in the following WI Department of Justice 720 Academy curriculum framework Phase II topics: Professional Communication Skills II, Incident Command Systems and NIMS, Hazardous Materials and WMD, Tactical Response, Crisis Management, and Tactical Emergency Casualty Care.

Restricted to students admitted to the following program(s): Crim Justice-Law Enf 720 Acad

504-706 Principles of Tactics **3 cr**

Through classroom lecture and on-campus lab students will learn and apply skills addressed in the following Phase II topics from the Department of Justice 720 Academy curriculum frameworks: DAAT and Firearms II. The Phase II Written Examination will be administered during this course.

Restricted to students admitted to the following program(s): Crim Justice-Law Enf 720 Acad

504-707 Principles of Emer Veh Respons **2 cr**

Through classroom lecture, and on-campus lab, and WI Department of Justice 720 Academy integration exercises students will learn and apply skills addressed in the following Department of Justice 720 Academy Phase II topics: Emergency Vehicle Operation and Control (EVOC) and Vehicle Contacts II.
Restricted to students admitted to the following program(s): Crim Justice-Law Enf 720 Acad

504-708 Principles of Investigations **2 cr**

Through classroom lecture, and on-campus lab, and WI Department of Justice 720 Academy integration exercises students will learn and apply skills addressed in the following Phase II topics of the WI Department of Justice 720 Academy curriculum framework: Constitutional Law II, Crimes II, Domestics, and Report Writing.
Restricted to students admitted to the following program(s): Crim Justice-Law Enf 720 Acad

504-709 Applications of Traffic Respon **2 cr**

Through classroom lecture, and on-campus lab, students will learn and apply skills addressed in the following Phase III topics from the WI Department of Justice 720 Academy curriculum framework: Traffic Law Enforcement - Core and Radar, Traffic Crash Investigations & Incident Management, Operating a Motor Vehicle While Intoxicated (OMVWI), Standardized Field Sobriety Tests (SFST), and Report Writing. A Phase II Written Examination will also be administered.
Restricted to students admitted to the following program(s): Crim Justice-Law Enf 720 Acad

504-710 Applications of Investigation **2 cr**

Through classroom lecture, and on-campus lab, and WI Department of Justice 720 Academy integration exercises students will learn and apply skills addressed in the following Phase II topics of the Department of Justice 720 Academy curriculum framework: Ethics II: Moral Reasoning and Professional Responsibility, Cultural Competence II: Fair and Impartial Policing, Victims, Sexual Assault, Child Maltreatment, Interrogations, Testifying in Court, and Crimes III.
Restricted to students admitted to the following program(s): Crim Justice-Law Enf 720 Acad

504-714 Sensitive Crimes **2 cr**

Through classroom lecture, and on-campus lab and WI Department of Justice 720 Academy integration exercises, students will learn and apply skills addressed in the following Department of Justice 720 Academy curriculum framework Phase III topics: Domestics, Juvenile Law, Victims, Sexual Assault, and Child Maltreatment. The DOJ Phase III Written Examination will be administered in this course.
Restricted to students admitted to the following program(s): Crim Justice-Law Enf 720 Acad

504-900 Intro to Criminal Justice **3 cr**

History of the criminal justice system; philosophy of law enforcement; civil and criminal law; local, state and federal law enforcement; career opportunities.

504-901 Constitutional Law **3 cr**

Arrest with and without warrants; searches with or without warrants; exclusionary rules.

504-902 Criminal Law **3 cr**

Principles for criminal liability; historical development; elements of crimes; criminal defenses.
Prerequisite(s): 504-900 Intro to Criminal Justice and 504-901 Constitutional Law
Restricted to students admitted to the following program(s): Criminal Justice

504-903 Professional Communications **3 cr**

This course is the study of aspects of professional communications in modern law enforcement and the application of both interview and interrogation techniques for law enforcement officers. Various approaches will be examined with an emphasis on the process of complete communication as well as interviewing and interrogating both witnesses and suspects. An overview of the legal limitations on interrogations will also be included.
Prerequisite(s): 504-900 Intro to Criminal Justice and 504-901 Constitutional Law

504-904 Juvenile Law and Justice **3 cr**

Causes and factors of delinquency; gangs; child abuse; drug abuse; police and juveniles; detention and rehabilitation; court system; intake worker.
Prerequisite(s): 504-900 Intro to Criminal Justice and 504-901 Constitutional Law and 504-902 Criminal Law

504-905 Report Writing **3 cr**

Structure and methods of factual writing; spelling, punctuation, paragraphing, purpose and principles of effective writing; report content.
Prerequisite(s): 504-901 Constitutional Law and 504-902 Criminal Law and (801-136 English Composition 1 or 801-195 Written Communication or 801-151) and (801-197 Technical Reporting or 801-171 Business English)

504-906 Criminal Investigations I **3 cr**

Preliminary investigation, crime scene control; identify and collect evidence; develop information; court presentation of evidence.
Prerequisite(s): 504-901 Constitutional Law and 504-902 Criminal Law and 504-903 Professional Communications

504-907 Community Policing Strategies **3 cr**

Concepts of public and community relations; understanding the criminal justice system and citizens; community relations in successful law enforcement; historical development of modern United States law enforcement; understanding modern law enforcement agency as a 'helping' organization.
Prerequisite(s): 504-900 Intro to Criminal Justice and 504-901 Constitutional Law

504-908 Traffic Theory **3 cr**

Wisconsin traffic code; traffic control; traffic law enforcement techniques; accident investigation; officer/violator relationship.

504-909 Criminal Investigations II **3 cr**

In this hands-on course, the student will learn about and develop investigative techniques specifically for physical evidence collection, online crime investigations and current technological advances in evidence collection for all kinds of criminal investigations.
Prerequisite(s): 504-901 Constitutional Law and 504-902 Criminal Law and 504-903 Professional Communications and 504-904 Juvenile Law and Justice and 504-905 Report Writing and 504-906 Criminal Investigations I

504-910 Law Enforcement Academy Prep **2 cr**

This course is meant for students who plan to apply for the Law Enforcement Academy once they have obtained 60 college credits/Associate's Degree. The course will prepare the student for fitness standards, tactics, testing and other employability requirements to be successful in the 720 hour academy.
Restricted to students admitted to the following program(s): Criminal Justice

508 Dental

508-101 Dental Health Safety **1 cr**

Prepares dental auxiliary students to respond proactively to dental emergencies, control infection, prevent disease, adhere to OSHA Standards, and safely manage hazardous materials. Students also take patient vital signs and collect patient medical/dental histories. CPR certification is a prerequisite; students will be required to show proof of certification before beginning the course.
Restricted to students admitted to the following program(s): Dental Assistant, Dental Hygienist

508-102 Oral Anatomy, Embry, Histology **4 cr**

Prepares Dental Hygienist students to apply detailed knowledge about oral anatomy to planning, implementation, assessment, and evaluation of patient care. Students identify distinguishing characteristics of normal and abnormal dental, head, and neck anatomy and its relationship to tooth development, eruption, and health.
Prerequisite(s): 806-177 Gen Anatomy & Physiology and (508-101 Dental Health Safety and 806-186 Intro to Biochemistry and 806-197 Microbiology)
Restricted to students admitted to the following program(s): Dental Hygienist

508-103 Dental Radiography **2 cr**

Prepares dental auxiliary students to operate x-ray units and expose bitewing, periapical, extral oral, and occlusal radiographs. Emphasis is placed on protection against x-ray hazards. Students also process, mount, and evaluate radiographs for diagnostic value. In this course, students demonstrate competency on a manikin. In addition, students expose bitewing radiographs on a peer, role-play patient.
Prerequisite(s): 806-177 Gen Anatomy & Physiology and (508-101 Dental Health Safety and 508-102 Oral Anatomy, Embry, Histology and 806-186 Intro to Biochemistry and 806-197 Microbiology)
Restricted to students admitted to the following program(s): Dental Hygienist

508-105 Dental Hygiene Process 1 **4 cr**

Introduces Dental Hygiene students to the basic technical/clinical skills required of practicing Dental Hygienists including use of basic dental equipment, examination of patients, and procedures within the dental unit. Under the direct supervision of an instructor, students integrate hands-on skills with entry-level critical thinking and problem-solving skills. The course also reinforces the application of Dental Health Safety skills.
Prerequisite(s): 806-177 Gen Anatomy & Physiology and (508-101 Dental Health Safety and 508-102 Oral Anatomy, Embry, Histology and 508-103 Dental Radiography and 806-186 Intro to Biochemistry and 806-197 Microbiology)
Restricted to students admitted to the following program(s): Dental Hygienist

508-106 Dental Hygiene Process 2 **4 cr**

This clinical course builds on and expands the technical/clinical skills student dental hygienists began developing in Dental Hygiene Process I. Under the direct supervision of an instructor, students apply patient care assessment, planning, implementation, and evaluation skills to provide comprehensive care for calculus case type 1 and 2 patients and perio case type 0, I, and II patients. This course introduces the application of fluoride and desensitizing agents, whole mouth assessments, comprehensive periodontal examinations, application of sealants, and patient classification. Students also begin performing removal of supragingival stain, dental plaque, calcified accretions, and deposits. In addition, they gain further experience in exposing radiographs on patients. The course also reinforces the application of Dental Health Safety skills.
Prerequisite(s): 508-102 Oral Anatomy, Embry, Histology and 508-103 Dental Radiography and 508-105 Dental Hygiene Process 1

508-107 Dental Hygiene Ethics & Profes **1 cr**

Helps student dental hygienists develop and apply high professional and ethical standards. Students apply the laws that govern the practice of dental hygiene to their work with patients, other members of a dental team and the community. Emphasis is placed on maintaining confidentiality and obtaining informed consent. Students enhance their ability to present a professional appearance.
Prerequisite(s): 508-112 Dental Hygiene Process 3
Corequisite(s): 508-117 Dental Hygiene Process 4
Restricted to students admitted to the following program(s): Dental Hygienist

508-108 Periodontology **3 cr**

This course prepares student dental hygienists to assess the periodontal health of patients, plan prevention and treatment of periodontal disease, and to evaluate the effectiveness of periodontal treatment plans. Emphasis is placed on the recognition of the signs and causes of periodontal disease and on selection of treatments modalities that minimize risk and restore periodontal health.
Prerequisite(s): 508-102 Oral Anatomy, Embry, Histology and 508-103 Dental Radiography and 806-186 Intro to Biochemistry and 806-197 Microbiology and 508-106 Dental Hygiene Process 2 and 508-111 General & Oral Pathology
Restricted to students admitted to the following program(s): Dental Hygienist

508-109 Cariology **1 cr**

This course focuses on the characteristics and contributing factors of dental decay. Dental Hygiene students help patients minimize caries risk by developing treatment plans, communicating methods to patients, and evaluating treatment results.
Prerequisite(s): 806-186 Intro to Biochemistry and 806-197 Microbiology and 508-106 Dental Hygiene Process 2
Restricted to students admitted to the following program(s): Dental Hygienist

508-110 Nutrition and Dental Health **2 cr**

Prepares student dental hygienists to counsel patients about diet and its impact on oral health. Students learn to distinguish between balanced and unbalanced diets and to construct diets that meet the needs of patients with compromised dental/oral health. Students also learn to counsel patients about the effect of eating disorders on dental health.
Prerequisite(s): 806-186 Intro to Biochemistry
Restricted to students admitted to the following program(s): Dental Hygienist

508-111 General & Oral Pathology **3 cr**

This course prepares the student dental hygienist to determine when to consult, treat or refer clients with various disease, infection or physiological conditions. Students learn to recognize the signs, causes, and implications of common pathological conditions including inflammatory responses, immune disorders, genetic disorders, developmental disorders of tissues and cysts, oral tissue trauma, and neoplasm of the oral cavity.
Prerequisite(s): 508-102 Oral Anatomy, Embry, Histology and 508-103 Dental Radiography and 508-106 Dental Hygiene Process 2 and 806-177 Gen Anatomy & Physiology
Restricted to students admitted to the following program(s): Dental Hygienist

508-112 Dental Hygiene Process 3 **5 cr**

This clinical course builds on and expands the technical/clinical skills student dental hygienists developed in Dental Hygiene Process II. In consultation with the instructor, students apply independent problem-solving skills in the course of providing comprehensive care for calculus case type 1, 2, and 3 patients and perio case type 0, I, II, and III patients. This course introduces root detoxification using hand and ultrasonic instruments, manipulation of files, use of oral irrigators, selection of dental implant prophylaxis treatment options, and administration of chemotherapeutic agents. Students also adapt care plans in order to accommodate patients with special needs.
Prerequisite(s): 508-106 Dental Hygiene Process 2 and 508-108 Periodontology and 508-109 Cariology and 508-110 Nutrition and Dental Health and 508-111 General & Oral Pathology

508-113 Dental Materials **2 cr**

Prepares dental auxiliary students to handle and prepare dental materials such as liners, bases, cements, amalgam, resin restorative materials, gypsum products, and impression materials. They also learn to take alginate impressions on manikins and clean removable appliances.
Prerequisite(s): 508-101 Dental Health Safety and 508-102 Oral Anatomy, Embry, Histology and 508-103 Dental Radiography

508-114 Dental Pharmacology **2 cr**

Prepares student dental hygienists to select safe and effective patient premedication, local anesthetic, chemo therapeutic, and antimicrobial agents within the scope of dental hygiene practice. Students will also learn to recognize potential pharmacological contraindications for specific patients and to take measures to avoid negative impact or alert other members of the dental team to possible negative impact.
Prerequisite(s): 508-106 Dental Hygiene Process 2 and 806-186 Intro to Biochemistry and 806-197 Microbiology and 508-112 Dental Hygiene Process 3

508-115 Community Dental Health **2 cr**

This course prepares the Dental Hygienist student to play a proactive role in improving the dental health of community members of all ages. Students perform and interpret dental health research to determine community dental health needs. They also participate in the development, implementation, and evaluation of a community dental health program.
Prerequisite(s): 508-112 Dental Hygiene Process 3

508-117 Dental Hygiene Process 4 **4 cr**

This clinical course builds on and expands the technical/clinical skills student dental hygienists developed in Dental Hygiene Process III. With feedback from the instructor, students manage all aspects of cases in the course of providing comprehensive care for calculus case type 0, 1, 2, and 3 patients and for perio case type 0, I, II, and III patients. Emphasizes maximization of clinical efficiency and effectiveness. Prepares student dental hygienists to demonstrate their clinical skills in a formal examination situation.
Prerequisite(s): 508-112 Dental Hygiene Process 3 and 508-113 Dental Materials and 508-114 Dental Pharmacology and 508-115 Community Dental Health

508-118 Dental Anxiety & Pain Managmnt **2 cr**

This course prepares the student dental hygienist to work within the scope of dental hygiene practice to manage anxiety and pain for dental patients. Students learn to prepare and administer local anesthesia and nitrous oxide safely. The course also addresses the recommendation of alternative pain control measures.
Prerequisite(s): 508-102 Oral Anatomy, Embry, Histology and 508-103 Dental Radiography and 508-112 Dental Hygiene Process 3 and 508-114 Dental Pharmacology
Restricted to students admitted to the following program(s): Dental Hygienist

508-168 Health Career Occupations **1 cr**

Simulated written and practical exams, individualized study plans, stress/test anxiety management strategies, and dental hygiene license obtainment will be addressed. Strengthen dental hygiene performance on written and clinical practical exams.
Prerequisite(s): 508-112 Dental Hygiene Process 3
Corequisite(s): 508-117 Dental Hygiene Process 4
Restricted to students admitted to the following program(s): Dental Hygienist

508-301 Dental Health Safety **2 cr**

Prepares dental auxiliary students to respond proactively to dental emergencies, control infection, prevent disease, adhere to OSHA standards, and safely manage hazardous materials. Students also take patient vital signs and collect patient medical/dental histories. CPR certification is a prerequisite; students will be required to show proof of certification before beginning the course.
Corequisite(s): 508-302 Dental Chairside, 508-303 Dental Materials, 508-304 Dental & General Anatomy, 508-305 Applied Dental Radiography, 508-306 Dental Assistant Clinical, 508-307 Dental Assistant Professional
Restricted to students admitted to the following program(s): Dental Assistant

508-302 Dental Chairside **5 cr**

Prepares dental assistant students to chart oral cavity structures, dental pathology, and restorations and to assist a dentist with basic dental procedures including examinations, pain control, amalgam restoration, and cosmetic restoration. Students will also develop the ability to educate patients about preventive dentistry, brushing and flossing techniques, and dental procedures, using lay terminology. Throughout the course, students will apply decoding strategies to the correct use and interpretation of dental terminology.
Prerequisite(s): 508-101 Dental Health Safety
Corequisite(s): 508-303 Dental Materials, 508-304 Dental & General Anatomy, 508-305 Applied Dental Radiography, 508-306 Dental Assistant Clinical, 508-307 Dental Assistant Professional
Restricted to students admitted to the following program(s): Dental Assistant

508-303 Dental Materials **2 cr**

Prepares dental auxiliary students to handle and prepare dental materials such as liners, bases, cements, amalgam, resin restorative materials, gypsum products, and impression materials. They also learn to take alginate impressions on manikins and clean removable appliances.
Prerequisite(s): 508-101 Dental Health Safety
Corequisite(s): 508-302 Dental Chairside, 508-304 Dental & General Anatomy, 508-305 Applied Dental Radiography, 508-306 Dental Assistant Clinical, 508-307 Dental Assistant Professional
Restricted to students admitted to the following program(s): Dental Assistant

508-304 Dental & General Anatomy **2 cr**

Prepares dental assistant students to apply fundamentals of general and dental anatomy to informed decision-making and to professional communication with colleagues and patients.
Prerequisite(s): 508-101 Dental Health Safety
Corequisite(s): 508-302 Dental Chairside, 508-303 Dental Materials, 508-305 Applied Dental Radiography, 508-306 Dental Assistant Clinical, 508-307 Dental Assistant Professional
Restricted to students admitted to the following program(s): Dental Assistant

508-305 Applied Dental Radiography **2 cr**

Prepares dental auxiliary students to operate x-ray units and expose bitewing, periapical, extral oral, and occlusal radiographs. Emphasis is placed on protection against x-ray hazards. Students also process, mount, and evaluate radiographs for diagnostic value. In this course students demonstrate competency on a manikin. In addition, students expose bitewing radiographs on a peer, role-play patient.
Prerequisite(s): 508-101 Dental Health Safety
Corequisite(s): 508-302 Dental Chairside, 508-303 Dental Materials, 508-304 Dental & General Anatomy, 508-306 Dental Assistant Clinical, 508-307 Dental Assistant Professional
Restricted to students admitted to the following program(s): Dental Assistant

508-306 Dental Assistant Clinical **3 cr**

Students apply skills developed in Dental and General Anatomy, Dental Health Safety, Dental Chairside, Dental Materials, Dental Radiography, and Professionalism in a clinical setting with patients. Emphasizes integration of core abilities and basic occupational skills.
Prerequisite(s): 508-101 Dental Health Safety
Corequisite(s): 508-302 Dental Chairside, 508-303 Dental Materials, 508-304 Dental & General Anatomy, 508-305 Applied Dental Radiography, 508-307 Dental Assistant Professional
Restricted to students admitted to the following program(s): Dental Assistant

508-307 Dental Assistant Professional **1 cr**

Prepares dental assistant students for professional success in a dental practice or another dental health care environment. Students develop professional appearance and image. More importantly, they learn to work within ethical guidelines and legal frameworks. In preparation for entering the work force, dental assistants customize or develop their portfolios and lay out an ongoing professional development plan.
Prerequisite(s): 508-101 Dental Health Safety
Corequisite(s): 508-302 Dental Chairside, 508-303 Dental Materials, 508-304 Dental & General Anatomy, 508-305 Applied Dental Radiography, 508-306 Dental Assistant Clinical
Restricted to students admitted to the following program(s): Dental Assistant

509 Medical Assistant

509-130 Medical Office Procedures **2 cr**

Introduces students to medical office receptionist duties, including patient registration, telephone techniques, scheduling appointments, and maintaining the medical record. Students learn about basic medical office finances, including collecting payments, posting charges and payments, and performing banking duties. Students apply knowledge learned by utilizing electronic health record software and practice management software to perform receptionist duties. Infection control principles and federal and state regulations impacting the medical office, including HIPAA and HITECH will be stressed.
Restricted to students admitted to the following program(s): Executive Assistant, Office Assistant, Office Receptionist

509-301 Medical Asst Admin Procedures **2 cr**

Introduces medical assistant students to office management, business administration, and the electronic medical record (EMR) in the medical office. Students learn to schedule appointments, perform filing, recordkeeping, telephone and reception duties, communicate effectively with patients and other medical office staff, and keep inventory or supplies.
Prerequisite(s): (501-107 Digital Literacy Healthcare or 501-120 Medical Office Computing)
Restricted to students admitted to the following program(s): Medical Assistant

509-302 Human Body in Health & Disease **3 cr**

Focuses on diseases that are frequently first diagnosed and treated in the medical office setting. Students learn to recognize human anatomy and the causes, signs, and symptoms of diseases of the major body systems as well as the diagnostic procedures, usual treatment, prognosis and prevention of common diseases.
Prerequisite(s): (501-101 Medical Terminology or 530-153 Medical Terminology I) and (min score of Y on BIOL or 836-113 Prep for Basic Biology)
Restricted to students admitted to the following program(s): Central Serv Technicia, Medical Assistant

509-303 Medical Asst Lab Procedures 1 **2 cr**

Introduces medical assistant students to laboratory procedures commonly performed by medical assistants in a medical office setting. Students perform CLIA waived routine laboratory procedures commonly performed in the ambulatory care setting. Students follow laboratory safety requirements and federal regulations while performing specimen collection and processing microbiology and urinalysis testing.
Corequisite(s): 509-304 Medical Asst Clin Procedures 1
Restricted to students admitted to the following program(s): Medical Assistant

509-304 Medical Asst Clin Procedures 1 **4 cr**

Introduces medical assistant students to the clinical procedures performed in the medical office setting. Students perform basic examining room skills including screening, vital signs, patient history, minor surgery, and patient preparation for routine and specialty exams in the ambulatory care setting.
Prerequisite(s): 509-302 Human Body in Health & Disease and 501-107 Digital Literacy Healthcare and (501-101 Medical Terminology or 530-153 Medical Terminology I)
Corequisite(s): 509-303 Medical Asst Lab Procedures 1
Restricted to students admitted to the following program(s): Medical Assistant

509-305 Med Asst Lab Procedures 2 **2 cr**

Prepares students to perform phlebotomy and CLIA waived hematology, chemistry, immunology and laboratory procedures commonly performed by medical assistants in the ambulatory care setting.
Prerequisite(s): (501-101 Medical Terminology or 530-153 Medical Terminology I) and (501-107 Digital Literacy Healthcare or 501-120 Medical Office Computing) and 509-302 Human Body in Health & Disease and 509-303 Medical Asst Lab Procedures 1 and 509-304 Medical Asst Clin Procedures 1 and (509-301 Medical Asst Admin Procedures and 509-307 Med Office Insurance & Finance and 509-309 Medical Law, Ethics & Profess) and (801-195 Written Communication or 801-136 English Composition 1 or 801-219 English Composition 1)
Corequisite(s): 509-306 Med Asst Clin Procedures 2, 509-310 Medical Assistant Practicum
Restricted to students admitted to the following program(s): Medical Assistant

509-306 Med Asst Clin Procedures 2 **3 cr**

Prepares medical assistant students to perform patient care skills in the medical office setting. Students perform clinical procedures including administering medications, performing an electrocardiogram, assisting with respiratory testing, educating patients/community, assisting with emergency preparedness in an ambulatory care setting.
Prerequisite(s): (501-101 Medical Terminology or 530-153 Medical Terminology I) and (501-107 Digital Literacy Healthcare or 501-120 Medical Office Computing) and 509-302 Human Body in Health & Disease and 509-303 Medical Asst Lab Procedures 1 and 509-304 Medical Asst Clin Procedures 1 and (801-195 Written Communication or 801-136 English Composition 1 or 801-219 English Composition 1) and (509-301 Medical Asst Admin Procedures and 509-307 Med Office Insurance & Finance and 509-309 Medical Law, Ethics & Profess)
Corequisite(s): 509-305 Med Asst Lab Procedures 2, 509-310 Medical Assistant Practicum
Restricted to students admitted to the following program(s): Medical Assistant

509-307 Med Office Insurance & Finance **2 cr**

Introduces medical assistant students to health insurance and finance in the medical office. Students perform bookkeeping procedures, apply managed care guidelines, and complete insurance claim forms. Students use medical coding and managed care terminology to perform insurance-related duties.
Prerequisite(s): (501-107 Digital Literacy Healthcare or 501-120 Medical Office Computing) and (501-101 Medical Terminology or 530-153 Medical Terminology I) and 509-302 Human Body in Health & Disease
Restricted to students admitted to the following program(s): Medical Assistant

509-309 Medical Law, Ethics & Profess **2 cr**

Prepares students to display professionalism and perform within ethical and legal boundaries in the health care setting. Students maintain confidentiality, examine legal aspects of the medical record, perform quality improvement procedures, examine legal and bioethical issues, and demonstrate awareness of diversity.
Restricted to students admitted to the following program(s): Medical Assistant

509-310 Medical Assistant Practicum **3 cr**

Requires medical assistant students to integrate and apply knowledge and skills from all previous medical assistant courses in actual ambulatory health care settings. Learners perform medical assistant administrative, clinical, and laboratory duties under the supervision of trained mentors to effectively transition to the role of a medical assistant. This is a supervised, unpaid, clinical experience.
Prerequisite(s): (501-107 Digital Literacy Healthcare or 501-120 Medical Office Computing) and (501-101 Medical Terminology or 530-153 Medical Terminology I) and 509-302 Human Body in Health & Disease and 509-303 Medical Asst Lab Procedures 1 and 509-304 Medical Asst Clin Procedures 1 and (801-195 Written Communication or 801-136 English Composition 1 or 801-219 English Composition 1) and 509-301 Medical Asst Admin Procedures and 509-305 Med Asst Lab Procedures 2 and 509-306 Med Asst Clin Procedures 2 and 509-307 Med Office Insurance & Finance and 501-308 Pharmacology for Allied Health and 509-309 Medical Law, Ethics & Profess
Restricted to students admitted to the following program(s): Medical Assistant

512 Surgical Technician

512-327 ST: Introduction **4 cr**

Provides the foundational knowledge of disinfection, sterilization, infection control, and asepsis. Legal and ethical issues encountered in the healthcare environment are explored. Simulated laboratory practice enables the learner to develop beginning technical skills.
Prerequisite(s): (806-177 Gen Anatomy & Physiology or 806-140 Anatomy & Physiology I) and (501-101 Medical Terminology or 530-153 Medical Terminology I)
Corequisite(s): 512-328 ST: Fundamentals 1, 512-330 ST: Clinical 1, 512-341 ST: Surgical Procedures 1
Restricted to students admitted to the following program(s): Surgical Technologist

512-328 ST: Fundamentals 1 **4 cr**

Includes the basic clinical skills needed by the Surgical Technologist in the scrub role. Learners develop skills in identifying basic instrumentation, supplies, drains, catheters, dressings, and sponges. Includes practice experience in creating a sterile field, draping, passing instruments and supplies, performing counts, and preparing supplies.
Prerequisite(s): (806-177 Gen Anatomy & Physiology or 806-140 Anatomy & Physiology I) and (501-101 Medical Terminology or 530-153 Medical Terminology I)
Corequisite(s): 512-327 ST: Introduction, 512-330 ST: Clinical 1, 512-341 ST: Surgical Procedures 1
Restricted to students admitted to the following program(s): Surgical Technologist

512-329 ST: Fundamentals 2 **2 cr**

Builds upon and reinforces the role of the Surgical Technologist as a member of the operating room team. Discusses care of the patient before, during, and after surgery with emphasis on surgical wounds, wound closure materials, and vital signs. Includes lecture and lab experiences.
Prerequisite(s): 512-328 ST: Fundamentals 1 and 512-341 ST: Surgical Procedures 1 and 512-332 ST: Clinical 2
Corequisite(s): 512-334 ST: Clinical 3
Restricted to students admitted to the following program(s): Surgical Technologist

512-330 ST: Clinical 1 **3 cr**

Apply basic surgical theories, principles, and procedural techniques in the operating room. Students begin to function as team members under the guidance of the instructor and authorized clinical personnel.
Prerequisite(s): (512-327 ST: Introduction and 512-328 ST: Fundamentals 1) and (501-101 Medical Terminology or 530-153 Medical Terminology I) and (806-177 Gen Anatomy & Physiology or 806-140 Anatomy & Physiology I)
Corequisite(s): 512-341 ST: Surgical Procedures 1
Restricted to students admitted to the following program(s): Surgical Technologist

512-331 ST: Surgical Procedures **4 cr**

Provides the foundational knowledge of surgical core and specialty procedures. Examines the pathophysiology diagnostic interventions, and surgical interventions for a variety of surgical procedures. Incorporates integration of basic health sciences and technical knowledge to complete a plan of action for a surgical procedure.
Prerequisite(s): 512-329 ST: Fundamentals 2 and 512-330 ST: Clinical 1
Corequisite(s): 512-332 ST: Clinical 2, 512-334 ST: Clinical 3

512-332 ST: Clinical 2 **4 cr**

Further experience in a clinical setting allows the student to continue to improve technical skills while accepting more responsibilities during surgical procedures.
Prerequisite(s): 512-329 ST: Fundamentals 2 and 512-330 ST: Clinical 1
Corequisite(s): 512-334 ST: Clinical 3, 512-342 ST: Surgical Procedures 2

512-334 ST: Clinical 3 **4 cr**

Enhances the student's technical experience and employee skills. Serves as a transition between student and employee. Application of advanced skills for the entry-level surgical technologist in the clinical setting.
Prerequisite(s): 512-341 ST: Surgical Procedures 1 and 512-332 ST: Clinical 2 and 801-356 Applied Job/Interpersonal Comm

512-341 ST: Surgical Procedures 1 **2 cr**

Provides the foundational knowledge of surgical core and specialty procedures. Examines the pathophysiology diagnostic interventions, and surgical interventions for a variety of surgical procedures. Incorporates integration of basic health sciences and technical knowledge to complete a plan of action for a surgical procedure.
Prerequisite(s): (501-101 Medical Terminology or 530-153 Medical Terminology I) and (806-177 Gen Anatomy & Physiology or 806-140 Anatomy & Physiology I)
Corequisite(s): 512-327 ST: Introduction, 512-328 ST: Fundamentals 1, 512-330 ST: Clinical 1
Restricted to students admitted to the following program(s): Surgical Technologist

512-342 ST: Surgical Procedures 2 **2 cr**

Builds upon the knowledge gained in ST: 512-341 by providing further foundational knowledge of surgical core and specialty procedures. Examines the pathophysiology diagnostic interventions, and surgical interventions for a variety of surgical procedures. Incorporates integration of basic health sciences and technical knowledge to complete a plan of action for a surgical procedure.
Prerequisite(s): (512-327 ST: Introduction and 512-328 ST: Fundamentals 1 and 512-341 ST: Surgical Procedures 1 and 512-330 ST: Clinical 1) and (512-332 ST: Clinical 2 and 512-334 ST: Clinical 3 and 512-329 ST: Fundamentals 2)

513 Laboratory Assistant

513-109 Blood Bank **4 cr**

Focuses on blood banking concepts and procedures including blood typing, compatibility testing, work ups for adverse reaction to transfusions, disease states and donor activities.
Prerequisite(s): 513-110 Basic Lab Skills and 513-113 QA Lab Math and 513-115 Basic Immunology Concepts

513-110 Basic Lab Skills **1 cr**

This course explores health career options and the principles and procedures of basic tests performed in the clinical laboratory. You will utilize medical terminology and general laboratory equipment. You will follow required safety and infection control procedures and perform simple laboratory tests.
Corequisite(s): 513-113 QA Lab Math
Restricted to students admitted to the following program(s): Medical Laboratory Technician

513-111 Phlebotomy **2 cr**

This course provides opportunities for leaners to perform routine venipunctre, routine capillary puncture, and special collection procedures. The student must be 18 years old to register for this course.

513-113 QA Lab Math **1 cr**

This course focuses on performing the mathematical calculations routinely used in laboratory settings. You will explore the concepts of quality control and quality assurance in the laboratory.
Corequisite(s): 513-110 Basic Lab Skills

513-114 Urinalysis **2 cr**

This course prepares you to perform a complete urinalysis which includes physical, chemical, and microscopic analysis. You will explore renal physiology and correlate urinalysis results with clinical conditions.
Prerequisite(s): 513-110 Basic Lab Skills and 513-113 QA Lab Math

513-115 Basic Immunology Concepts **2 cr**

This course provides an overview of the immune system including laboratory testing methods for diagnosis of immune system disorders, viral, and bacterial infections.
Restricted to students admitted to the following program(s): Medical Laboratory Technician

513-116 Clinical Chemistry **4 cr**

Introduces clinical chemistry techniques and procedures for routine analysis using photometric, potentiometric and separation techniques. Topics in this course include pathophysiology and methodologies for carbohydrate, lipids, proteins, renal function and blood gas analysis.
Prerequisite(s): 513-114 Urinalysis and 806-186 Intro to Biochemistry and 806-177 Gen Anatomy & Physiology

513-120 Basic Hematology **3 cr**

This course covers the theory and principles of blood cell production and function and introduces you to basic practices and procedures in the hematology laboratory.
Prerequisite(s): 513-110 Basic Lab Skills and 513-111 Phlebotomy and 513-113 QA Lab Math and 513-115 Basic Immunology Concepts
Corequisite(s): 513-121 Coagulation

513-121 Coagulation **1 cr**

This course introduces the theory and principles of coagulation and explores mechanisms involved in coagulation disorders. Emphasis is placed upon laboratory techniques used to diagnose disease and monitor treatment.
Prerequisite(s): 513-110 Basic Lab Skills and 513-111 Phlebotomy and 513-113 QA Lab Math and 513-115 Basic Immunology Concepts
Corequisite(s): 513-120 Basic Hematology

513-130 Advanced Hematology **2 cr**

This course explores mechanisms involved in the development of hematological disorders. Emphasis is placed upon laboratory techniques used to diagnose disorders and monitor treatment.
Prerequisite(s): 513-120 Basic Hematology and 513-121 Coagulation

513-133 Clinical Microbiology **4 cr**

This course presents the clinical importance of infectious diseases with emphasis upon the appropriate collection, handling, and identification of clinically relevant bacteria. Disease states, modes of transmission and methods of prevention and control, including antibiotic susceptibility testing, will also be discussed.
Prerequisite(s): 806-197 Microbiology
Corequisite(s): 513-140 Advanced Microbiology
Restricted to students admitted to the following program(s): Medical Laboratory Technician

513-140 Advanced Microbiology **2 cr**

This course provides an overview of acid fast organisms, fungi, parasites, and anaerobic bacteria. The organisms, their pathophysiology, epidemiology, the diseases and conditions that they cause, laboratory methods of handling, culturing, and identification will be discussed.
Prerequisite(s): 806-197 Microbiology
Corequisite(s): 513-133 Clinical Microbiology

513-144 Clinical Experience 3 **4 cr**

This course provides the learner with opportunities to practice the principles and procedures of laboratory medicine in a clinical laboratory setting including the operation of state of the art instrumentation and the use of laboratory information systems to report results. The fourteen competencies will be divided between Clinical Experience 1, Clinical Experience 2, and Clinical Experience 3. Order that competencies will be covered may vary based on staffing at clinical sites.
Corequisite(s): 513-130 Advanced Hematology, 513-151 Clinical Experience 1, 513-152 Clinical Experience 2
Restricted to students admitted to the following program(s): Medical Laboratory Technician

513-145 MLT Seminar **2 cr**

Issues related to working in a health care setting; certification, professional societies, patient rights, medical/legal issues and ethics. Must be CLT 3rd semester status.
Restricted to students admitted to the following program(s): Medical Laboratory Technician

513-151 Clinical Experience 1 **3 cr**

This course provides the learner with opportunities to practice the principles and procedures of laboratory medicine in a clinical laboratory setting including the operation of state of the art instrumentation and the use of laboratory information systems to report results. The fourteen competencies will be divided between Clinical Experience 1, Clinical Experience 2, and Clinical Experience 3. Order that competencies will be covered may vary based on staffing at clinical sites.
Prerequisite(s): 513-131 Clinical Chemistry 1 and 513-132 Clinical Chemistry 2 and 513-145 MLT Seminar
Corequisite(s): 513-130 Advanced Hematology, 513-144 Clinical Experience 3, 513-152 Clinical Experience 2
Restricted to students admitted to the following program(s): Medical Laboratory Technician

513-152 Clinical Experience 2 **4 cr**

This course provides the learner with opportunities to practice the principles and procedures of laboratory medicine in a clinical laboratory setting including the operation of state of the art instrumentation and the use of laboratory information systems to report results. The fourteen competencies will be divided between Clinical Experience 1, Clinical Experience 2, and Clinical Experience 3. Order that competencies will be covered may vary based on staffing at clinical sites.
Prerequisite(s): 513-131 Clinical Chemistry 1 and 513-132 Clinical Chemistry 2 and 513-145 MLT Seminar
Corequisite(s): 513-130 Advanced Hematology, 513-144 Clinical Experience 3, 513-151 Clinical Experience 1
Restricted to students admitted to the following program(s): Medical Laboratory Technician

513-170 Intro to Molecular Diagnostics **2 cr**

Introduces the principles and application of molecular diagnostics in the clinical laboratory.
Prerequisite(s): 513-110 Basic Lab Skills

515 Respiratory Care Practitioner

515-111 Respiratory Survey **3 cr**

This course will introduce the student to issues facing health care workers. Topics will include ethics, confidentiality, and professionalism. Health care structure and economics will also be introduced. Other topics may include professional licensure, legal aspects of health care, and patient communication.
Restricted to students admitted to the following program(s): Respiratory Therapy

515-112 Respiratory Airway Management **2 cr**

Provides a comprehensive exploration of airway management concepts and skills.
Prerequisite(s): 515-172 Respiratory Therapeutics 2 and 515-174 Respiratory/Cardiac Physiology and 515-175 Respiratory Clinical 1 and 806-197 Microbiology
Restricted to students admitted to the following program(s): Respiratory Therapy

515-113 Respiratory Life Support **3 cr**

Focuses on management of adult ventilatory support.
Prerequisite(s): 515-172 Respiratory Therapeutics 2 and 515-175 Respiratory Clinical 1 and 515-112 Respiratory Airway Management
Restricted to students admitted to the following program(s): Respiratory Therapy

515-145 Adv Respiratory Care Topics **2 cr**

A course to consider advanced topics and perform examination review for the RC students.
Prerequisite(s): 515-178 Respiratory Clinical 2 and 515-179 Respiratory Clinical 3 and 515-112 Respiratory Airway Management
Restricted to students admitted to the following program(s): Respiratory Therapy

515-171 Respiratory Therapeutics 1 **3 cr**

Introduces the topics of medical gas administration and humidity and aerosol therapy. The learner will apply physics, math, and patient assessment concepts to oxygen, aerosol and humidity therapy.
Prerequisite(s): 515-111 Respiratory Survey and 806-177 Gen Anatomy & Physiology
Restricted to students admitted to the following program(s): Respiratory Therapy

515-172 Respiratory Therapeutics 2 **3 cr**

Introduces therapeutic procedures including arterial puncture, bronchial hygiene, lung expansion therapy, and pulmonary rehabilitation.
Prerequisite(s): 515-171 Respiratory Therapeutics 1
Restricted to students admitted to the following program(s): Respiratory Therapy

515-173 Respiratory Pharmacology **3 cr**

Examines basic pharmacology principles, drug dosage, and calculations. Medications for inhalation including mucolytics, bronchodilators, and anti-inflammatories. Also includes cardiac drugs, anesthetic drugs, neuromuscular blockers, and antimicrobials.
Prerequisite(s): 806-177 Gen Anatomy & Physiology and 515-111 Respiratory Survey
Restricted to students admitted to the following program(s): Respiratory Therapy

515-174 Respiratory/Cardiac Physiology **3 cr**

Provides the student with an in-depth knowledge of the structure and function of the respiratory and circulatory systems necessary to function as a competent Respiratory Therapist.
Prerequisite(s): 806-177 Gen Anatomy & Physiology and 515-171 Respiratory Therapeutics 1
Restricted to students admitted to the following program(s): Respiratory Therapy

515-175 Respiratory Clinical 1 **2 cr**

Introduces Respiratory Therapy practice in the hospital setting. Includes the development of skills such as basic therapeutics, patient assessment, medical record review, safety practices, patient interaction, and communication.
Prerequisite(s): (501-101 Medical Terminology and 515-171 Respiratory Therapeutics 1 and 515-172 Respiratory Therapeutics 2 and 515-174 Respiratory/Cardiac Physiology) and (515-173 Respiratory Pharmacology and 515-176 Respiratory Disease and 515-111 Respiratory Survey)
Restricted to students admitted to the following program(s): Respiratory Therapy

515-176 Respiratory Disease **3 cr**

Exploration of signs, symptoms, causes, progression, and treatment of obstructive, restrictive and infectious diseases or disorders of the body that affect the respiratory system.
Prerequisite(s): 806-177 Gen Anatomy & Physiology and 515-111 Respiratory Survey
Restricted to students admitted to the following program(s): Respiratory Therapy

515-178 Respiratory Clinical 2 **3 cr**

Continued development of Respiratory Therapy clinical skills including respiratory therapeutics. Focuses on monitoring, analyzing and interpreting data to make appropriate modifications in patient care. This course includes the complete program competency list. At the completion of this clinical, learners must demonstrate competence in a minimum of 12 (required and/or simulated) competencies. The instructor may identify specific competencies to be addressed during this clinical.
Prerequisite(s): 515-175 Respiratory Clinical 1 and 806-197 Microbiology
Restricted to students admitted to the following program(s): Respiratory Therapy

515-179 Respiratory Clinical 3 **3 cr**

Continued development of Respiratory Therapy clinical skills including respiratory therapeutics. Focuses on monitoring, analyzing and interpreting data to make appropriate modifications in patient care. This course includes the complete program competency list. At the completion of this clinical, learners must demonstrate competence in a minimum of 19 (required and/or simulated) competencies. The instructor may identify specific competencies to be addressed during this clinical.
Prerequisite(s): 515-178 Respiratory Clinical 2
Restricted to students admitted to the following program(s): Respiratory Therapy

515-180 Respiratory Neo/Peds Care **2 cr**

Provides a comprehensive orientation to the field of neonatal and pediatric respiratory care to include fetal development, birth, neonatal physiology, pulmonary dynamics, abnormal cardiopulmonary conditions, diseases, noninvasive and invasive therapeutic interventions.
Prerequisite(s): 515-112 Respiratory Airway Management and 515-113 Respiratory Life Support
Restricted to students admitted to the following program(s): Respiratory Therapy

515-181 Respiratory/Cardio Diagnostics **3 cr**

Advanced invasive and noninvasive diagnostic cardiopulmonary procedures including pulmonary function, hemodynamics and rescue medicine.
Prerequisite(s): 515-113 Respiratory Life Support and 515-176 Respiratory Disease
Restricted to students admitted to the following program(s): Respiratory Therapy

515-182 Respiratory Clinical 4 **3 cr**

Continued development of Respiratory Therapy clinical skills including respiratory therapeutics. Focuses on monitoring, analyzing, and interpreting data to make appropriate modifications in patient care. This course includes the complete program competency list. At the completion of this clinical, learners must demonstrate competence in a minimum of 26 (required and/or simulated) competencies. The instructor may identify specific competencies to be addressed during this clinical.
Prerequisite(s): 515-179 Respiratory Clinical 3 or 515-112 Respiratory Airway Management
Restricted to students admitted to the following program(s): Respiratory Therapy

515-183 Respiratory Clinical 5 **3 cr**

Focuses on the completion of respiratory therapy competencies and transition to employment. This course includes the complete program competency list. At the completion of this clinical, learners must demonstrate competence in all of the required and required/simulated competencies. The instructor may identify specific competencies to be addressed during this clinical.
Prerequisite(s): 515-182 Respiratory Clinical 4
Restricted to students admitted to the following program(s): Respiratory Therapy

522 Educational Services

522-101 EDU:Teamwork in School Setting **3 cr**

Working together is paramount in helping all children learn. This introductory course will define the role and responsibilities of the instructional assistant. School and educational policies, ethical and moral responsibilities, group dynamics and Wisconsin tribal rights will also be explored. Emphasis placed on collaborating with a team comprised of diverse members.

522-102 EDU: Techniques/Readg/Lang Art **3 cr**

This course will focus on best practices in working with children in their development of reading and language arts. The student will gain an understanding of the reading process and how to work with all children and reinforce instruction individually and in groups through questioning, listening and guiding, and scaffolding techniques. Current instructional approaches will be analyzed and practices to support individualized, small group and large group instruction.

522-103 EDU: Intro to Educ Practices **3 cr**

This course will include the study of historical, philosophical and social foundations of education; issues and trends including diversity affecting our schools of today including elementary, middle level and secondary educational settings. An overview of the WI Department of Public Instruction and federal regulations; WI Act 31 Treaty Rights, fundamentals of teaching methodologies, learning styles, questioning techniques, and basic assessment practices will be addressed.

522-104 EDU: Technology/Media Rsrces **3 cr**

This course provides the opportunity for the learner to develop the knowledge and skills to use trending classroom technologies. Students will gain experience creating and using web tools including electronic portfolios.

522-106 EDU: Child & Adolescent Devel **3 cr**

This course provides the opportunity for the learner to develop the knowledge and skills to use trending classroom technologies. Students will gain experience creating and using web tools including electronic portfolios.

522-107 EDU: Overview of Special Ed **3 cr**

This course provides an overview of the special education law. Special education categories under IDEA and associated causes and characteristics will be explored as well as state and federal qualification criteria will be examined. Societal responses to students with disabilities as well as the impact of a student with disabilities on family dynamics will also be covered in this course.

522-111 EDU: Guiding & Mnging Behavior **3 cr**

Recent trends in education support a shifting paradigm from reactive discipline to proactive, preventive classroom management. This course will provide the learner with research-based concepts and strategies which can be used to prevent behavior problems from occurring in the classroom and respond to misbehavior. Practical application of strategies to organizing instruction, creating a positive classroom climate, building positive student relationships, implementing sound instructional methods, enhancing motivation and responding effectively to inappropriate classroom behavior will be emphasized. Effective student communication and problem solving will be practiced in class with a focus on developing

skills, which will assist in empowering children to take an active role in self control and classroom management.

522-118 EDU: Techniques for Math **3 cr**

This course will address techniques for the Instructional Assistant in assisting the classroom teacher in group and individual tutoring activities in math. Current practice including manipulatives, problem solving and assessment will be covered within the framework of state and national standards.

522-120 EDU: Techniques for Science **3 cr**

The course is an introduction to the content and processes of science. Strategies of teaching science will be studied and practiced and will prepare you in assisting the classroom teacher in group and individual activities in science. Current science processes, strategies, procedures, assessment options and factors affecting science learning will be explored.

522-122 EDU: Adv Readg/Language Arts **3 cr**

Schools focus on integrating reading and writing across the curriculum. In this course, students will explore how to integrate reading and writing within the content areas. Students will also gain the knowledge and skills needed to support and encourage children as independent, strategic readers as well as techniques to support and assess student performance through the writing process. Children's and young adult literature, poetry and personal writing will be explored and integrated throughout this course. Integrating nonfiction and information text across the curriculum will be explored.
Prerequisite(s): 522-102 EDU: Techniques/Readg/Lang Art

522-124 EDU: Support Students w Disab **3 cr**

This course focuses on examining how a continuum of service is delivered to students with special education needs including in the inclusive classroom setting and through supportive and related services. A review of the law will be provided as it relates to special education, and the individual educational program (IEP), assessment and planning process through transition. Based on the premise that all children can learn, students will examine factors, which enhance learning through a study of various classroom accommodations and instructional formats such as direct instruction, strategy instruction and task analysis.

Students will engage in simulated classroom activities to explore and practice incorporating a wide array of research-based interventions and instructional techniques and programs used to support students with disabilities in all major curricular areas and to help students develop effective study skills. Students will practice monitoring and recording child and youth behavior. Techniques used to support students with medically fragile needs will be explored. Students will develop a philosophy related to responsible inclusion.
Prerequisite(s): 522-107 EDU: Overview of Special Ed

522-129 EDU: Practicum 1 **3 cr**

Practicum I will introduce the student to a diverse classroom setting at an elementary, middle school and/or high school level. The student will observe children and practice techniques under the guidance of a DPI certified teacher.
Restricted to students admitted to the following program(s): Foundations of Teacher Ed

522-131 EDU: Practicum 2 **3 cr**

Apply the skills learned in previous program courses in a school setting while under the supervision of a DPI certified teacher. Students support children with special education needs and programming. Job search skills will be addressed and a professional portfolio will be completed.
Prerequisite(s): 522-129 EDU: Practicum 1
Restricted to students admitted to the following program(s): Foundations of Teacher Ed

522-132 EDU:Positive Classrm Mgmt Tech **3 cr**

This course examines the impact of issues such as divorce, alcoholism, child abuse, youth suicide, stress, bullying, harassment, violence and gangs on behavior in the classroom. Conflict resolution techniques and de-escalation strategies and with an emphasis on prevention will also be examined.
Prerequisite(s): 522-111 EDU: Guiding & Mnging Behavior

524 Physical Therapy Assistant

524-139 PTA Patient Interventions **4 cr**

An introduction to basic skills and physical therapy interventions performed by the physical therapist assistant.
Prerequisite(s): 806-177 Gen Anatomy & Physiology

Corequisite(s): 524-156 PTA Applied Kinesiology 1, 524-157 PTA Applied Kinesiology 2
Restricted to students admitted to the following program(s): Physical Therapist Assistant

524-140 PTA Professional Issues 1 **2 cr**

Introduces the history and development of the physical therapy program, legal and ethical issues, the interdisciplinary health care team, and professional communication skills.
Prerequisite(s): 524-142 PTA Therapeutic Exercise and 524-143 PTA Therapeutic Modalities and 524-145 PTA Princ of Musculo Rehab and 524-147 PTA Clinical Practice 1
Corequisite(s): 524-156 PTA Applied Kinesiology 1
Restricted to students admitted to the following program(s): Physical Therapist Assistant

524-142 PTA Therapeutic Exercise **3 cr**

Provides instruction on the implementation of a variety of therapeutic exercise principles. Learners implement, educate, adapt, and assess responses to therapeutic exercises.
Prerequisite(s): 524-139 PTA Patient Interventions and 524-156 PTA Applied Kinesiology 1 and 524-157 PTA Applied Kinesiology 2
Corequisite(s): 524-143 PTA Therapeutic Modalities

524-143 PTA Therapeutic Modalities **4 cr**

Develops the knowledge and technical skills necessary to perform numerous therapeutic modalities likely to be utilized as a PTA.
Prerequisite(s): 524-139 PTA Patient Interventions and 524-156 PTA Applied Kinesiology 1 and 524-157 PTA Applied Kinesiology 2
Corequisite(s): 524-142 PTA Therapeutic Exercise

524-144 PTA Princ of Neuro Rehab **4 cr**

Integrates concepts of neuromuscular pathologies, physical therapy interventions, and data collection in patient treatment.
Prerequisite(s): 524-142 PTA Therapeutic Exercise and 524-143 PTA Therapeutic Modalities and 524-157 PTA Applied Kinesiology 2
Corequisite(s): 524-145 PTA Princ of Musculo Rehab, 524-146 PTA Cardio & Integ Mgmt, 524-147 PTA Clinical Practice 1

524-145 PTA Princ of Musculo Rehab **4 cr**

Integrates concepts of musculoskeletal pathologies, physical therapy interventions, and data collection in patient treatment.
Prerequisite(s): 524-139 PTA Patient Interventions and 524-156 PTA Applied Kinesiology 1 and 524-157 PTA Applied Kinesiology 2

Corequisite(s): 524-142 PTA Therapeutic Exercise, 524-143 PTA Therapeutic Modalities, 524-147 PTA Clinical Practice 1

524-146 PTA Cardio & Integ Mgmt **3 cr**

Integrates concepts of cardiopulmonary and integumentary pathologies, physical therapy interventions, and data collection in patient treatment.
Prerequisite(s): 524-139 PTA Patient Interventions and 524-142 PTA Therapeutic Exercise and 524-157 PTA Applied Kinesiology 2
Corequisite(s): 524-144 PTA Princ of Neuro Rehab, 524-145 PTA Princ of Musculo Rehab, 524-147 PTA Clinical Practice 1

524-147 PTA Clinical Practice 1 **2 cr**

Provides a part-time clinical experience to apply foundational elements, knowledge, and technical skills pertinent to physical therapy practice.
Prerequisite(s): 524-156 PTA Applied Kinesiology 1 and 524-157 PTA Applied Kinesiology 2 and 524-139 PTA Patient Interventions
Corequisite(s): 524-142 PTA Therapeutic Exercise, 524-143 PTA Therapeutic Modalities, 524-145 PTA Princ of Musculo Rehab

524-148 PTA Clinical Practice 2 **3 cr**

Provides another part-time clinical experience to apply foundational elements, knowledge, and technical skills required of the entry-level physical therapist assistant in various practice settings.
Prerequisite(s): 524-147 PTA Clinical Practice 1
Corequisite(s): 524-149 PTA Rehab Across the Lifespan, 524-150 PTA Professional Issues 2, 524-151 PTA Clinical Practice 3

524-149 PTA Rehab Across the Lifespan **2 cr**

A capstone course that integrates concepts of pathology, physical therapy interventions and data collection across the lifespan. In addition, the PTA's role in health, wellness and prevention, reintegration, and physical therapy interventions for special patient populations will be addressed.
Prerequisite(s): 524-147 PTA Clinical Practice 1
Corequisite(s): 524-148 PTA Clinical Practice 2, 524-150 PTA Professional Issues 2, 524-151 PTA Clinical Practice 3

524-150 PTA Professional Issues 2 **2 cr**

Incorporates professional development, advanced legal and ethical issues, healthcare management and administration, and further development of professional communication strategies.

Prerequisite(s): 524-147 PTA Clinical Practice 1
Corequisite(s): 524-148 PTA Clinical Practice 2, 524-149 PTA Rehab Across the Lifespan, 524-151 PTA Clinical Practice 3

524-151 PTA Clinical Practice 3 **5 cr**

Provides a full-time clinical experience to apply foundational elements, knowledge, and technical skills required of the entry-level physical therapist assistant in various practice settings.
Prerequisite(s): 524-147 PTA Clinical Practice 1
Corequisite(s): 524-148 PTA Clinical Practice 2, 524-149 PTA Rehab Across the Lifespan, 524-150 PTA Professional Issues 2

524-156 PTA Applied Kinesiology 1 **4 cr**

Introduces basic principles of musculoskeletal anatomy, kinematics, and clinical assessment. Students locate and identify muscles, joints, and other landmarks of the lower quadrant in addition to assessing range of motion and strength.
Prerequisite(s): 806-177 Gen Anatomy & Physiology
Corequisite(s): 524-139 PTA Patient Interventions, 524-157 PTA Applied Kinesiology 2
Restricted to students admitted to the following program(s): Physical Therapist Assistant

524-157 PTA Applied Kinesiology 2 **3 cr**

Applies basic principles from PTA Kinesiology 1 to the axial skeleton and upper quadrant including location and identification of muscles, joints and other landmarks. Assess range of motion and strength of the axial skeleton and upper quadrant. Integrate analysis of posture and gait.
Prerequisite(s): 806-177 Gen Anatomy & Physiology
Corequisite(s): 524-139 PTA Patient Interventions, 524-156 PTA Applied Kinesiology 1
Restricted to students admitted to the following program(s): Physical Therapist Assistant

526 Radiologic Technology

526-149 Radiographic Procedures 1 **5 cr**

Prepares radiography students to perform routine radiologic procedures on various parts of the body including the upper body, hip, pelvis, and ankle. Students apply knowledge of human anatomy to position the patient correctly to achieve the desired result.
Prerequisite(s): 806-177 Gen Anatomy & Physiology
Restricted to students admitted to the following program(s): Radiography

526-158 Introduction to Radiography **3 cr**

Introduces students to the role of radiography in health care. Students apply medical terminology, legal and ethical considerations to patient care and pharmacology in the

radiologic sciences.
Restricted to students admitted to the following program(s): Radiography

526-159 Radiographic Imaging 1 **3 cr**

Introduces radiography students to the process and components of analog imaging. Students determine the factors that affect image quality including contrast, density, detail, and distortion.
Restricted to students admitted to the following program(s): Radiography

526-168 Radiography Clinical 1 **2 cr**

This beginning level clinical course prepares radiography students to perform radiologic procedures on patients with extensive supervision and direction. Students apply radiation protection and standard precautions in the production of radiographs in a health care setting while adhering to legal and ethical guidelines. An emphasis of the course is the development of communication and critical thinking skills appropriate to the clinical setting.
Prerequisite(s): 806-177 Gen Anatomy & Physiology
Corequisite(s): 526-149 Radiographic Procedures 1, 526-158 Introduction to Radiography, 526-159 Radiographic Imaging 1
Restricted to students admitted to the following program(s): Radiography

526-170 Radiographic Imaging 2 **3 cr**

Prepares radiography students to apply advanced radiographic principles to the production of radiographic images. Students analyze exposure factor considerations, differentiate between film and exposure latitude, and use beam-restricting devices.
Prerequisite(s): 526-159 Radiographic Imaging 1
Restricted to students admitted to the following program(s): Radiography

526-174 ARRT Certification Seminar **2 cr**

Provides preparation for the for the national certification exam prepared by the American Registry of Radiologic Technologists. Emphasis is placed on the weak areas of the individual students. Simulated registry examinations are utilized.
Restricted to students admitted to the following program(s): Radiography

526-189 Radiographic Pathology **1 cr**

Prepares radiography students to determine the basic radiographic manifestations of pathological conditions. Students classify trauma related to site, complications, and prognosis and locate the radiographic appearance of pathologies.
Prerequisite(s): 526-191 Radiographic Procedures 2
Restricted to students admitted to the following program(s): Radiography

526-190 Radiography Clinical 5 **2 cr**

This clinical course prepares radiography students to perform radiologic procedures on patients with some supervision. Students apply radiation protection and standard precautions in the production of radiographs in a health care setting while adhering to legal and ethical guidelines. Students are encouraged to demonstrate independent judgment in the performance of clinical competencies.
Prerequisite(s): 526-199 Radiography Clinical 4
Restricted to students admitted to the following program(s): Radiography

526-191 Radiographic Procedures 2 **5 cr**

Prepares radiography students to perform routine radiologic procedures on various parts of the body including the skull and spine. Students apply knowledge of human anatomy to position the patient correctly to achieve the desired result.
Prerequisite(s): 526-149 Radiographic Procedures 1 and 806-177 Gen Anatomy & Physiology
Restricted to students admitted to the following program(s): Radiography

526-192 Radiography Clinical 2 **3 cr**

This second level clinical course prepares radiography students to perform radiologic procedures on patients with extensive supervision and direction. Students apply radiation protection and standard precautions in the production of radiographs in a health care setting while adhering to legal and ethical guidelines. An emphasis of the course is the development of communication and critical thinking skills appropriate to the clinical setting.
Prerequisite(s): 526-168 Radiography Clinical 1
Corequisite(s): 526-170 Radiographic Imaging 2, 526-191 Radiographic Procedures 2
Restricted to students admitted to the following program(s): Radiography

526-193 Radiography Clinical 3 **3 cr**

This third level clinical course prepares radiography students to perform radiologic procedures on patients with supervision and direction. Students apply radiation protection and standard precautions in the production of radiographs in a health care setting while adhering to legal and ethical guidelines. An emphasis of the course is the demonstration of communication and critical thinking skills appropriate to the clinical setting.
Prerequisite(s): 526-192 Radiography Clinical 2 and 526-170 Radiographic Imaging 2 and 526-191 Radiographic Procedures 2
Restricted to students admitted to the following program(s): Radiography

526-194 Imaging Equipment Operation **3 cr**

Introduces radiography students to the principles and application of x-ray technology. Students analyze how x-rays are produced and determine the corrective actions necessary for common equipment malfunctions.
Prerequisite(s): 526-158 Introduction to Radiography and 526-159 Radiographic Imaging 1
Restricted to students admitted to the following program(s): Radiography

526-195 Radiographic Quality Analysis **2 cr**

Prepares radiography students to analyze radiographic images for quality. Students apply quality control tests to determine the causes of image problems including equipment malfunctions and procedural errors.
Prerequisite(s): 526-170 Radiographic Imaging 2 and 526-191 Radiographic Procedures 2
Corequisite(s): 526-189 Radiographic Pathology
Restricted to students admitted to the following program(s): Radiography

526-196 Modalities **3 cr**

Introduces radiography students to other types of imaging including ultrasound, MRI, mammography, and bone density scans. Students analyze the role of various imaging technologies in health care.
Restricted to students admitted to the following program(s): Radiography

526-197 Radiation Protection & Biology **3 cr**

Prepares radiography students to protect themselves and others from exposure to radioactivity. Students examine the characteristics of radiation and how radiation affects cell biology. Students apply standards and guidelines for radiation exposure.
Prerequisite(s): 526-158 Introduction to Radiography and 526-194 Imaging Equipment Operation and 526-170 Radiographic Imaging 2
Restricted to students admitted to the following program(s): Radiography

526-198 Radiography Clinical 6 **2 cr**

This final clinical course requires students to integrate and apply all knowledge learned in previous courses to the production of high quality radiographs in the clinical setting. Students apply radiation protection and standard precautions in the production of radiographs in a health care setting while adhering to legal and ethical guidelines. Students are encouraged to demonstrate independent judgment in the performance of clinical competencies.
Prerequisite(s): 526-190 Radiography Clinical 5

526-199 Radiography Clinical 4 **3 cr**

This fourth level clinical course prepares radiography students to perform radiologic procedures on patients with supervision and direction. Students apply radiation protection and standard precautions in the production of radiographs in a health care setting while adhering to legal and ethical guidelines. Students are encouraged to demonstrate independent judgment in the performance of clinical competencies.
Prerequisite(s): 526-193 Radiography Clinical 3

526-200 Intro to DMS **3 cr**

This course introduces learners to the field of Diagnostic Medical Sonography. Explores the duties and functions of the Diagnostic Medical Sonographer as well as the historical background. Learners examine the other imaging modalities as they relate to Sonography. Includes principles of patient care and legal and ethical issues related to Sonography.
Restricted to students admitted to the following program(s): Diagnostic Medical Sonography

526-203 Scanning With Proficiency **1 cr**

Prepares learners for the rigors of clinical imaging by performing timed abdominal and gynecological competencies.
Corequisite(s): 526-212 OB/GYN Sonography 2
Restricted to students admitted to the following program(s): Diagnostic Medical Sonography

526-207 Abdominal Sonography **4 cr**

Prepares learners to perform ultrasounds of the abdominal organs including liver, gallbladder, biliary tree, pancreas, spleen, urinary tract, aorta and retroperitoneum. Emphasis is placed on recognizing the anatomy and pathology of the abdominal organs. Practice scan sessions included.
Prerequisite(s): (501-101 Medical Terminology or 530-153 Medical Terminology I) and 526-210 Cross Sectional Anatomy and (806-179 Adv Anatomy & Physiology or 806-141 Anatomy & Physiology II or 806-208 Anatomy & Physiology 2)

526-208 OB/GYN Sonography 1 **3 cr**

Prepares learners to perform ultrasounds of the nongravid uterus and the first trimester pregnancy. Explores the anatomy, physiology, and pathology of the female reproductive system as well as intrauterine and ectopic pregnancies.
Prerequisite(s): (501-101 Medical Terminology or 530-153 Medical Terminology I) and 526-210 Cross Sectional Anatomy and (806-179 Adv Anatomy & Physiology or 806-141 Anatomy & Physiology II or 806-208 Anatomy & Physiology 2)

526-209 DMS Clinical Experience 1 **2 cr**

Clinical 1 is a blended course. During this 8 week experience the learner will have a hands-on, interactive learning experience conducted at an approved JRC-DMS clinical site/sites (if two sites are required to offer fair opportunity). Additional course work including assignments, research, case study work up, quizzes/exams, and discussions will be required on learner management system. The course is designed to help prepare the student sonographer for entry level employment in the workforce. Areas of concentration include sonography of the liver, gallbladder/biliary tract, pancreas, kidneys, retroperitoneum and non-gravid pelvic sonography both transabdominally and edovaginally. The student will apply his/her knowledge and experience in a working clinical environment. Sonographic technique, image acquisition, clinical correlation, and patient care skills are practiced under direct guidance of a registered staff sonographer. The student will become familiar with the organizational process and policies of the department. Students should strive to obtain competency in the areas of abdominal and pelvic scanning.
Prerequisite(s): 526-212 OB/GYN Sonography 2
Corequisite(s): 526-226 DMS Clinical Experience 2
Restricted to students admitted to the following program(s): Diagnostic Medical Sonography

526-210 Cross Sectional Anatomy **2 cr**

Introduces cross sectional anatomy as related to Diagnostic Medical Sonography. Includes correlating images from other imaging modalities.
Prerequisite(s): 806-177 Gen Anatomy & Physiology or 806-207 Anatomy & Physiology 1
Restricted to students admitted to the following program(s): Diagnostic Medical Sonography, Radiography

526-211 Superficial Sonography **2 cr**

Investigates superficial structure imaging. Includes anatomy, pathophysiology, and sonographic evaluation. Prepares learner to perform ultrasounds of the thyroid, breast, male reproductive system, musculoskeletal system, and GI tract.
Prerequisite(s): 526-207 Abdominal Sonography and 526-208 OB/GYN Sonography 1 and 526-210 Cross Sectional Anatomy
Corequisite(s): 526-222 Sonography Physics 2

526-212 OB/GYN Sonography 2 **3 cr**

Prepares learners to perform ultrasounds of the second and third trimester pregnancy. Explores the anatomy, physiology, and pathology of the female pelvis and the developing fetus. Learners will be exposed to interventional procedures related to pregnancy.
Prerequisite(s): 526-208 OB/GYN Sonography 1
Corequisite(s): 526-203 Scanning With Proficiency, 526-222 Sonography Physics 2

526-215 DMS Clinical Experience 3 **4 cr**

This course is the final clinical course of the program. It is an 11-week blended course. The learner will have a hands-on, interactive learning experience conducted at an approved JRC-DMS clinical site/sites (if two sites are required to offer fair opportunity). Additional course work including assignments, research, case study work up, quizzes/exams, and discussions will be required on the learner management system. The course is designed to help prepare the student sonographer for entry level employment in the workforce. All imaging skills will be at entry level employment by the end of this experience. The student learner will be capable of independently obtaining diagnostic quality exams in a time efficient manner for all structures previously practiced. Clinical 3 serves as a transition from student intern to employee.
Prerequisite(s): 526-226 DMS Clinical Experience 2
Restricted to students admitted to the following program(s): Diagnostic Medical Sonography

526-217 Registry Review **1 cr**

Prepares students to take the ARDMS examinations. Provides a review of the Diagnostic Medical Sonography competencies.

526-221 Sonography Physics 1 **3 cr**

Introduces physics and instrumentation relevant to diagnostic medical sonography. Learners explore how principles of sound propagation in tissues create a sonographic image.
Prerequisite(s): 526-200 Intro to DMS and 526-210 Cross Sectional Anatomy and 806-154 General Physics 1 and (806-179 Adv Anatomy & Physiology or 806-208 Anatomy & Physiology 2) and (804-134 Mathematical Reasoning or 804-113 College Technical Math 1A)
Corequisite(s): 526-207 Abdominal Sonography, 526-208 OB/GYN Sonography 1, 526-223 Vascular Imaging 1
Restricted to students admitted to the following program(s): Diagnostic Medical Sonography

526-222 Sonography Physics 2 **2 cr**

Continues the study of physics and instrumentation relevant to diagnostic medical sonography. The laboratory component of this course introduces the student to the concepts of ultrasound instrumentation, and introduction to ultrasonic scanning technique, and maintenance of ultrasound equipment.
Prerequisite(s): 526-221 Sonography Physics 1
Corequisite(s): 526-211 Superficial Sonography, 526-212 OB/GYN Sonography 2, 526-224 Vascular Imaging 2
Restricted to students admitted to the following program(s): Diagnostic Medical Sonography

526-223 Vascular Imaging 1 **3 cr**

Introduces the principles of vascular sonographic imaging. Learners perform a variety of peripheral vascular arterial and venous duplex exams.
Prerequisite(s): 526-200 Intro to DMS and 526-210 Cross Sectional Anatomy and (806-179 Adv Anatomy & Physiology or 806-208 Anatomy & Physiology 2)
Corequisite(s): 526-207 Abdominal Sonography, 526-208 OB/GYN Sonography 1, 526-221 Sonography Physics 1
Restricted to students admitted to the following program(s): Diagnostic Medical Sonography

526-224 Vascular Imaging 2 **3 cr**

Prepares learners to perform abdominal vascular and physiologic peripheral vascular exams.
Prerequisite(s): 526-223 Vascular Imaging 1
Corequisite(s): 526-222 Sonography Physics 2
Restricted to students admitted to the following program(s): Diagnostic Medical Sonography

526-226 DMS Clinical Experience 2 **4 cr**

This clinical course is a blended course. During this 8 week experience the learner will have a hands-on, interactive learning experience conducted at an approved JRC-DMS clinical site/sites (if two sites are required to offer fair opportunity). Additional Course work including assignments, research, case study work up, quizzes/exams, and discussions will be required on the learning management system. The course is designed to help prepare the student sonographer for entry level employment in the workforce. The learner will concentrate efforts on scanning first, second, and third trimester obstetrics as well as vascular and superficial structures imaging. Clinical 2 will provide further opportunity to mature and expand the skills previously acquired in a clinical setting. Students begin to function as team members under the guidance of the instructor and authorized clinical personnel.
Corequisite(s): 526-209 DMS Clinical Experience 1
Restricted to students admitted to the following program(s): Diagnostic Medical Sonography

530 Medical Records

530-103 Medical Insurance & Billing **2 cr**

The focus of this course is medical insurance billing and claims processing. Requirements for processing claims from an insurance company perspective and the medical facility perspective are addressed. Specific insurance types include managed care organizations. Medicare, Medical Assistance, and commercial payers. An overview of CPT and ICD coding systems is provided. Fraud and abuse initiatives and compliance requirements are reviewed.

530-107 HIMT Fundamentals **3 cr**

This course provides learners a firm foundation in the knowledge and skills essential to the field of Health Information Management & Technology. Includes: healthcare delivery systems and organization; health record content, organization, and storage; information technology in healthcare; electronic health records; healthcare data sets and data standards; data and information governance; accreditation, and licensing documentation requirements; confidentiality, privacy, and security issues; the HIM profession and HIMT functions; and ethical issues in health information management and technology.
Prerequisite(s): 501-130 Healthcare IT
Restricted to students admitted to the following program(s): Health Info Management & Tech

530-118 HC Statistics & Data Analytics **2 cr**

Analyzing data is critical to business practices and procedures, especially in the healthcare industry. Learners will explore the management of healthcare data using both descriptive and inferential statistics. They will learn about the collection, calculation, compilation, reporting, and presentation of administrative and clinical data. Learners will develop data quality application and data analytic skills they can use in the workplace.
Prerequisite(s): 530-107 HIMT Fundamentals and (804-134 Mathematical Reasoning or 804-123 Math w Business Apps or 804-133 Math & Logic or 804-230 Statistics)
Restricted to students admitted to the following program(s): Health Info Management & Tech, Health Information Technology

530-124 HIMT Practicum 1 **2 cr**

The first of a two-semester sequence of supervised clinical experiences in healthcare facilities. This course provides application of previously acquired skills and knowledge with clinical experiences in the technical procedures of health record systems and discussion of clinical situations.
Prerequisite(s): (530-178 Healthcare Law & Ethics and 530-118 HC Statistics & Data Analytics) and (530-160 Healthcare Informatics and 530-185 Healthcare Reimbursement)
Restricted to students admitted to the following program(s): Health Info Management & Tech

530-126 HIMT Practicum 2 **2 cr**

The second of a two-semester sequence of supervised technical and managerial clinical experiences in healthcare facilities. This course provides application of previously acquired skills and knowledge and discussion of clinical situations, preparation for the certification examination and pre-graduation activities.
Prerequisite(s): (530-124 HIMT Practicum 1 and 530-194 HIM Organizational Resources) and (530-150 Applied HIM Technology and 530-161 Health Quality Management and 530-195 Applied Coding)
Restricted to students admitted to the following program(s): Health Info Management & Tech

530-150 Applied HIM Technology **2 cr**

A project-based course designed to align with current practices and the evolving roles in HIM. Learners will apply changes in healthcare legislation, healthcare regulatory requirements, and computer technology to the collection, storage, retrieval, analysis, reporting, and management of healthcare data. Includes further application of skills in data analysis, critical thinking, and project management.
Prerequisite(s): 530-160 Healthcare Informatics and 530-118 HC Statistics & Data Analytics
Restricted to students admitted to the following program(s): Health Info Management & Tech, Health Information Technology

530-160 Healthcare Informatics **3 cr**

Emphasizes the role of information technology in healthcare through an investigation of the electronic health record (EHR), business, and health information software applications. Learners will develop skills to assist in information systems design and implementation.
Prerequisite(s): 501-130 Healthcare IT and 530-107 HIMT Fundamentals
Restricted to students admitted to the following program(s): Health Info Management & Tech, Health Information Technology

530-161 Health Quality Management **3 cr**

Explores the programs and processes used to manage and improve healthcare quality. Addresses regulatory requirements as related to performance measurement, assessment, and improvement, required monitoring activities, risk management and patient safety, utilization management, and medical staff credentialing. Emphasizes the use of critical thinking and data analysis skills in the management and reporting of data.
Prerequisite(s): 530-118 HC Statistics & Data Analytics
Restricted to students admitted to the following program(s): Health Info Management & Tech, Health Information Technology

530-178 Healthcare Law & Ethics **2 cr**

Examines regulations for the content, use, confidentiality, disclosure, and retention of health information. An overview of the legal system and ethical issues are addressed.
Prerequisite(s): 530-107 HIMT Fundamentals
Restricted to students admitted to the following program(s): Health Info Management & Tech, Health Information Technology

530-182 Human Disease for Hlth Profes **3 cr**

This course 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.
Prerequisite(s): (501-101 Medical Terminology or 530-153 Medical Terminology I) and (806-177 Gen Anatomy & Physiology or 806-140 Anatomy & Physiology I)

530-184 CPT Coding **3 cr**

Prepares learners to assign CPT codes, supported by medical documentation, with entry level proficiency. Learners apply CPT instructional notations, conventions, rules, and official coding guidelines when assigning CPT codes to case studies and actual medical record documentation.
Prerequisite(s): 501-101 Medical Terminology and 530-107 HIMT Fundamentals and 530-182 Human Disease for Hlth Profes and 806-177 Gen Anatomy & Physiology
Restricted to students admitted to the following program(s): Health Info Management & Tech, Health Information Technology

530-185 Healthcare Reimbursement **2 cr**

This course prepares learners to compare and contrast health care payers, illustrate the reimbursement cycle, and to comply with regulations related to fraud and abuse. Learners assign Diagnosis Related Groups (DRGs), Ambulatory Payment Classifications (APCs), and Resource Utilization Groups (RUGs) with entry level proficiency using computerized encoding and grouping software.
Prerequisite(s): (530-184 CPT Coding and 530-103 Medical Insurance & Billing and 530-197 ICD Diagnosis Coding) and 530-199 ICD Procedure Coding
Restricted to students admitted to the following program(s): Health Info Management & Tech, Health Information Technology

530-194 HIM Organizational Resources **2 cr**

A study of the principles of management to include planning, organizing, human resource management, directing, and controlling as related to the health information department.
Prerequisite(s): 530-107 HIMT Fundamentals and 530-118 HC Statistics & Data Analytics and 530-178 Healthcare Law & Ethics
Restricted to students admitted to the following program(s): Health Info Management & Tech, Health Information Technology

530-195 Applied Coding **2 cr**

Prepares students to assign ICD and CPT/HCPCS codes supported by medical documentation with intermediate level of proficiency. Students will prepare appropriate physician queries in accordance with compliance guidelines and will assign codes to optimize appropriate reimbursement.
Prerequisite(s): 530-185 Healthcare Reimbursement
Restricted to students admitted to the following program(s): Health Info Management & Tech, Health Information Technology

530-197 ICD Diagnosis Coding **3 cr**

Prepares students to assign ICD diagnosis codes supported by medical documentation with entry level proficiency. Students apply instructional notations, conventions, rules, and official coding guidelines when assigning ICD diagnosis codes to case studies and actual medical record documentation.
Prerequisite(s): 501-101 Medical Terminology and 530-107 HIMT Fundamentals and 530-182 Human Disease for Hlth Profes and 806-177 Gen Anatomy & Physiology
Restricted to students admitted to the following program(s): Health Info Management & Tech, Health Information Technology

530-199 ICD Procedure Coding **2 cr**

Prepares students to assign ICD procedure codes supported by medical documentation with entry level proficiency. Students apply instructional notations, conventions, rules, and official coding guidelines when assigning ICD procedure codes to case studies and actual medical record documentation.
Prerequisite(s): 501-101 Medical Terminology and 530-107 HIMT Fundamentals and 530-182 Human Disease for Hlth Profes and 806-177 Gen Anatomy & Physiology
Restricted to students admitted to the following program(s): Health Info Management & Tech, Health Information Technology

531 Emergency Medical Service

531-110 Emergency Medical Technician **5 cr**

This course prepares students for all aspects of emergency medical care, both medical and trauma situations, sanctioned by the Wisconsin Division of Health, at the basic level. Following the most current Wisconsin Revision of the National Standard Curriculum, this course includes didactic and practical skill information in the following areas: legal aspects, anatomy and physiology, patient assessment, critical thinking skills, airway adjuncts, fractures and dislocations, spinal injuries, soft tissue wounds, pharmacology, stroke, cardiac, diabetic, respiratory, altered mental status, pediatric, geriatric, ambulance operations, and triage. A student should be prepared to obtain 100 percent proficiency in all areas through punctuality, attendance, completion of assignments, class participation, and full cooperation with the instructor. Prerequisite: American Heart Association Healthcare Provider CPR (531-454) or American Red Cross CPR for the Professional Rescuer or American Safety.
Prerequisite(s): 531-454 CPR-BLS Provider

531-140 FireMedic Fundamentals **5 cr**

This course orients the student to the culture, organization, and history of the Fire Based EMS-Service. Students understand the roles and responsibilities of the FireMedic. Topics include ethics, legal aspects, wellness and injury prevention, communication, documentation, history-taking, and decision-making. Several medical skills are reviewed including physical exam techniques, pathophysiology, and patient assessment.
Prerequisite(s): 531-152 Paramedic Pharmacology and 531-155 Respiratory Management
Restricted to students admitted to the following program(s): FireMedic

531-170 FireMedic Internship **4 cr**

The student is required to complete documented practical skills application and observation at the beginning Firefighter I/EMT-Paramedic level. The student will perform required skill competencies at a fire-based EMS field internship site under the direct supervision of an approved preceptor.
Prerequisite(s): 531-164 Trauma and 531-165 Emergency Care for Specialists
Corequisite(s): 531-166 EMS Operation

531-180 Intro to Adv Pre-hospital Care **4 cr**

This course will serve as a bridge from the EMT-Basic into Advanced Life Support course offerings inclusive of EMT-Intermediate, Paramedic and FireMedic. Course will include lab (simulation). With competency validated, 128 hours of on-the-job training will follow with an ambulance service. This course will lead to a better prepared learner as student moved into advanced level course work with a better understanding of occupation and expectation of the work place.

531-190 FireMedic Capstone **1 cr**

This course provides the FireMedic student with a final opportunity to incorporate their cognitive knowledge and psychomotor skills through lab and scenario-based practice and evaluations prior to taking the national registry written and practical examinations. Technical Skills Attainment (TSA) for each student will be compiled and/or documented within this course as required by the DHS-approved paramedic curriculum.
Prerequisite(s): 531-922 EMS Operations
Restricted to students admitted to the following program(s): FireMedic

531-340 Advanced EMT **3 cr**

The Advanced Emergency Medical Technician (AEMT) course expands the role and skills of the EMT. A thorough knowledge of anatomy and physiology, intravenous access, medication administration, and fluid therapy will be included within the course. The instructional program consists of classroom lecture, practical labs, and clinical experiences in both hospital and field settings. Upon successful completion of the course, students are eligible to take the National Registry AEMT cognitive and psychomotor exams. Successful completion of the AEMT exam allows students to apply for Wisconsin Licensure at the Intermediate Technician level.

531-357 Medical Emergencies **4 cr**

This course is a study of the pathophysiology, assessment, and management of common medical emergencies including pulmonary, neurologic, endocrine, gastroenteral, renal/urologic, toxicologic, hematologic, environmental, infectious, and behavioral.
Prerequisite(s): 531-351 Paramedic Fundamentals and 531-352 Pharmacology for Emer Medicine and 531-353 Airway Management and 531-355 Cardiovascular Emergencies and 531-370 Clinical I and (804-113 College Technical Math 1A or 804-141 Applied Algebra) and (806-177 Gen Anatomy & Physiology or 806-140 Anatomy & Physiology I)

531-911 EMS Fundamental **2 cr**

This course provides the paramedic student with comprehensive knowledge of EMS systems, safety, well-being, legal issues, and ethical issues, with the intended outcome of improving the health of EMS personnel, patients, and the community. The students will obtain fundamental knowledge of public health principles and epidemiology as related to public health emergencies, health promotion, and illness/injury prevention. Introducing students to comprehensive anatomical and medical terminology and abbreviations will foster the development of effective written and oral communications with colleagues and other health care professionals.
Prerequisite(s): 806-177 Gen Anatomy & Physiology
Restricted to students admitted to the following program(s): FireMedic, Paramedic Technician

531-912 Paramedic Medical Principles **4 cr**

This course addresses the complex depth of anatomy, physiology, and pathophysiology of major human systems while also introducing the paramedic students to the topics of shock, immunology, and bleeding.
Prerequisite(s): 531-911 EMS Fundamental
Restricted to students admitted to the following program(s): FireMedic, Paramedic Technician

531-913 Adv. Patient Asses. Principles **3 cr**

This course teaches the paramedic student to integrate scene and patient assessment findings with knowledge of epidemiology and pathophysiology to form a field impression. By utilizing a structured and organized assessment process with knowledge of anatomy, physiology, pathophysiology, life span development, and changes that occur to the human body with time, the students will learn to develop a list of differential diagnoses through clinical reasoning, along with the ability to modify the assessment as necessary to formulate a treatment plan for their patients.
Prerequisite(s): 531-912 Paramedic Medical Principles
Restricted to students admitted to the following program(s): FireMedic, Paramedic Technician

531-914 Adv. Pre-hospital Pharmacology **3 cr**

This course provides the paramedic student with the comprehensive knowledge of pharmacology required to formulate and administer a pharmacological treatment plan intended to mitigate emergencies and improve the overall health of the patient.
Prerequisite(s): 531-913 Adv. Patient Asses. Principles
Restricted to students admitted to the following program(s): FireMedic, Paramedic Technician

531-915 Paramedic Respiratory Mgt. **2 cr**

This course teaches the paramedic student to integrate complex knowledge of anatomy, physiology, and pathophysiology into the assessment to develop and implement a treatment plan with the goal of assuring a patient airway, adequate mechanical ventilation, and respiration for patients of all ages. Specific knowledge pertaining to the respiratory system is also provided to ensure the student is prepared to formulate afield impression and implement a comprehensive treatment plan for a patient with a respiratory complaint.
Prerequisite(s): 531-914 Adv. Pre-hospital Pharmacology
Restricted to students admitted to the following program(s): FireMedic, Paramedic Technician

531-916 Paramedic Cardiology **4 cr**

This course teaches the paramedic student to integrate assessment findings with principles of cardiovascular anatomy, physiology, epidemiology, and pathophysiology to formulate a field impression and implement a comprehensive treatment plan for a patient with a cardiovascular complaint.
Prerequisite(s): 531-915 Paramedic Respiratory Mgt.
Restricted to students admitted to the following program(s): FireMedic, Paramedic Technician

531-917 Paramedic Clinical/Field 1 **3 cr**

This course provides the student with the opportunity to enhance his or her learning through the practice of paramedicine in field and health care environment experiences with actual patients under the supervision of instructors or approved preceptors. Students may also have the opportunity to participate in formal high-fidelity human patient simulator experiences as a part of this course.
Prerequisite(s): 531-916 Paramedic Cardiology
Restricted to students admitted to the following program(s): FireMedic, Paramedic Technician

531-918 Adv. Emergency Resuscitation **1 cr**

By teaching Advanced Cardiac Life Support (ACLS) and Pediatric Advanced Life Support (PALS) methodologies and protocols, this course prepares the paramedic student in the integration of comprehensive knowledge of causes and pathophysiology into the management of shock, respiratory failure, respiratory arrest, cardiac arrest, and peri-arrest states with an emphasis on early intervention to prevent respiratory and/or cardiac arrest if possible.

Restricted to students admitted to the following program(s): FireMedic, Paramedic Technician

531-919 Paramedic Medical Emergencies **4 cr**

This course teaches the paramedic student to integrate assessment findings with principles of anatomy, physiology, epidemiology, and pathophysiology to formulate a field impression and implement a comprehensive treatment plan for a patient with a medical complaint.

Restricted to students admitted to the following program(s): FireMedic, Paramedic Technician

531-920 Paramedic Trauma **3 cr**

This course teaches the paramedic student to integrate assessment findings with principles of anatomy, physiology, epidemiology, and pathophysiology to formulate a field impression and implement a comprehensive treatment plan for an acutely injured patient.

Prerequisite(s): 531-919 Paramedic Medical Emergencies

Restricted to students admitted to the following program(s): FireMedic, Paramedic Technician

531-921 Special Patient Populations **3 cr**

This course teaches the paramedic student to integrate assessment findings with principles of anatomy, physiology, epidemiology, and pathophysiology to formulate a field impression and implement a comprehensive treatment plan for patients with special needs. Gynecological emergencies, along with special considerations in trauma are also included within this course.

Prerequisite(s): 531-920 Paramedic Trauma

Restricted to students admitted to the following program(s): FireMedic, Paramedic Technician

531-922 EMS Operations **1 cr**

This course provides the paramedic student with the knowledge of operational roles and responsibilities to ensure patient, public, and EMS personnel safety.

Prerequisite(s): 531-921 Special Patient Populations

Restricted to students admitted to the following program(s): FireMedic, Paramedic Technician

531-923 Paramedic Capstone **1 cr**

This course provides the student with a final opportunity to incorporate their cognitive knowledge and psychomotor skills through labs and scenario-based practice and evaluations prior to taking the National Registry written and practical examinations. Technical Skills Attainment (TSA) for each student will be compiled and/or documented within this course as required by the DHS-approved paramedic curriculum.
Prerequisite(s): 531-922 EMS Operations or 531-166 EMS Operation
Restricted to students admitted to the following program(s): FireMedic, Paramedic Technician

531-924 Paramedic Clinical/Field 2 **4 cr**

This course provides the student with the opportunity to enhance his or her learning through the practice of paramedicine in the field and health care environment experiences with actual patients under the supervision of instructors or approved preceptors. Students may also have the opportunity to participate in formal high-fidelity human patient simulator experiences as a part of this course. Successful completion of this course requires the student to meet all clinical and field competency requirements at the paramedic level as defined by WI DHS EMS.
Restricted to students admitted to the following program(s): FireMedic, Paramedic Technician

531-925 Paramedic Clinical Field 1A **2 cr**

This course provides the student with the opportunity to enhance his or her learning through the practice of paramedicine in field and health care environment experiences with actual patients under the supervision of instructors or approved preceptors. Students may also have the opportunity to participate in formal high-fidelity human patient simulator experiences as a part of this course. Clinical areas introduced are Physician I, Respiratory Therapy, IV Team, Emergency Department and OR.
Prerequisite(s): 531-916 Paramedic Cardiology
Restricted to students admitted to the following program(s): FireMedic, Paramedic Technician

531-926 Paramedic Clinical Field 1B **1 cr**

This course provides the student with the opportunity to enhance his or her learning through the practice of paramedicine in field and health care environment experiences with actual patients under the supervision of instructors or approved preceptors. Students may also have the opportunity to participate in formal high-fidelity human patient simulator experiences as a part of this course. Clinical areas introduced are intensive care medicine, pediatric emergency departments, obstetrics, and cardiac catheterization lab.
Prerequisite(s): 531-925 Paramedic Clinical Field 1A
Restricted to students admitted to the following program(s): FireMedic, Paramedic Technician

534 Central Services Technician/Assistant

534-300 Central Serv Tech, Fundamentls **3 cr**

Introduces packaging, cleaning techniques, care, handling, identification, and usage of instruments, equipment and supplies, basic aseptic techniques and patient centered practices in the lab setting. Students will also spend time working in a Central Service Department at a local hospital.
Restricted to students admitted to the following program(s): Central Service Technician

534-302 Central Serv Tech Clinical **1 cr**

Learner is given the opportunity to apply what they have learned in the clinical setting at a local hospital. Time will be spent in the central service department as well as the operating room.
Prerequisite(s): 534-300 Central Serv Tech, Fundamentls
Restricted to students admitted to the following program(s): Central Service Technician

536 Pharmacy

536-110 Pharmaceutical Calculations **3 cr**

Prepares the learner to convert weights and volumes between the avoirdupois, the apothecary, and the metric systems of measurement; utilize ratios and proportions; reduce and enlarge pharmaceutical formulas; calculate medication quantities from percent w/w, w/v, v/v, pm, and ratio concentrations; perform dilution calculations; utilize the allegation method; solve problems related to electrolyte solutions; convert temperatures between the Fahrenheit and Celsius scales; convert military and standard time; and calculate individualized patient dosages based on body surface area, age, and/or weight of the patient.
Prerequisite(s): 501-101 Medical Terminology
Corequisite(s): 536-112 Pharmacy Business Apps, 536-115 Pharmacy Law, 536-120 Reading Prescriptions, Fund of, 536-134 Pharmacy Benefits-Managing, 536-138 Pharmacy Community Clinical
Restricted to students admitted to the following program(s): Pharmacy Technician

536-112 Pharmacy Business Apps **4 cr**

This course prepares the learner to summarize pharmacy policies dealing with the Health Insurance Privacy and Portability Act (HIPPA), analyze criminal activities in the pharmacy, assess the operation and location of pharmacy equipment, utilize information posted in the pharmacy, analyze the work culture of the pharmacy, analyze the steps in processing a prescription, analyze patient profile information, analyze issues affecting the practice of pharmacy, market employment skills, analyze patient safety issues, analyze pharmacy front of store operations, analyze methods used to prepare extemporaneous compounds, and analyze customer service issues.

Corequisite(s): 536-110 Pharmaceutical Calculations, 536-115 Pharmacy Law, 536-120 Reading Prescriptions, Fund of, 536-134 Pharmacy Benefits-Managing, 536-138 Pharmacy Community Clinical

Restricted to students admitted to the following program(s): Pharmacy Technician

536-115 Pharmacy Law **2 cr**

This course prepares the learner to apply Federal laws to the practice of pharmacy; apply Wisconsin State laws to the practice of pharmacy; select appropriate drug products for substitution in accordance with the law; explain the Investigational New Drug (IND) process; explain pharmacy equipment, license, and floor plan legal requirements; apply controlled substance laws to the procurement, processing, and record keeping of controlled substances; analyze the history of pharmacy law; and summarize drug law enforcement agencies.

Corequisite(s): 536-110 Pharmaceutical Calculations, 536-112 Pharmacy Business Apps, 536-120 Reading Prescriptions, Fund of, 536-134 Pharmacy Benefits-Managing, 536-138 Pharmacy Community Clinical

Restricted to students admitted to the following program(s): Pharmacy Technician

536-120 Reading Prescriptions, Fund of **2 cr**

This course prepares the learner to match the brand name and generic name of commonly prescribed medications, determine the pharmacologic classes of commonly prescribed medications, determine the appropriate auxiliary labels to be placed on prescription bottles for commonly prescribed medications, determine if a prescribed medication is a controlled substance and to which schedule it belongs, analyze prescriptions for appropriateness of drug and dosing schedule, and interpret Latin abbreviations used in the practice of pharmacy.

Corequisite(s): 536-110 Pharmaceutical Calculations, 536-112 Pharmacy Business Apps, 536-115 Pharmacy Law, 536-134 Pharmacy Benefits-Managing, 536-138 Pharmacy Community Clinical

Restricted to students admitted to the following program(s): Pharmacy Technician

536-122 Pharmacology for Pharmacy Tech **3 cr**

Prepares the learner to summarize treatments for diseases of the Musculoskeletal, Dermatologic, Endocrine, Reproductive, Cardiovascular, Respiratory, Hematologic, Immune, Nervous, Gastrointestinal, Renal eyes, ears, nose, and throat, as well as the use of antineoplastic and geriatric drugs.
Corequisite(s): 536-124 Pharmacy Drug Dist. Systems, 536-126 Pharmacy Parenteral Admixtures, 536-140 Pharmacy Hospital Clinical, 536-141 Hospital Pharmacy Lab
Restricted to students admitted to the following program(s): Pharmacy Technician

536-124 Pharmacy Drug Dist. Systems **1 cr**

Prepares the learner to analyze the changes occurring in institutional health care and the consequences for pharmacists and pharmacy technicians, analyze the unit dose packaging and distribution system, compare various hospital or nursing home pharmacy administrative and physical designs, compare different distribution systems used in hospital or nursing homes, and interview for a job.
Prerequisite(s): 536-112 Pharmacy Business Apps and 536-134 Pharmacy Benefits-Managing and 536-138 Pharmacy Community Clinical
Corequisite(s): 536-122 Pharmacology for Pharmacy Tech, 536-126 Pharmacy Parenteral Admixtures, 536-140 Pharmacy Hospital Clinical, 536-141 Hospital Pharmacy Lab
Restricted to students admitted to the following program(s): Pharmacy Technician

536-126 Pharmacy Parenteral Admixtures **3 cr**

Prepares the learner to utilize supplies used in preparation of parenteral admixtures, compare common parenteral solutions, identify equipment to prepare parenteral products, differentiate various parenteral administration routes, prepare parenteral admixtures using aseptic technique, prevent incompatibilities from occurring in parenteral admixtures, prepare cytotoxic medications, prepare total parenteral nutrition products, and perform parenteral admixture calculations.
Corequisite(s): 536-122 Pharmacology for Pharmacy Tech, 536-124 Pharmacy Drug Dist. Systems, 536-140 Pharmacy Hospital Clinical, 536-141 Hospital Pharmacy Lab
Restricted to students admitted to the following program(s): Pharmacy Technician

536-134 Pharmacy Benefits-Managing **1 cr**

This course prepares the learner to utilize terminology pertinent to third party reimbursements in the field of pharmacy, analyze the various popular formulary systems, calculate the selling price for a prescription based on the Average Wholesale Price (AWP) and the formula required by the Pharmacy Benefit Manager, analyze the role of the Pharmacy Benefits Manager in the health care system, and summarize medical coverage provided by government agencies.
Corequisite(s): 536-110 Pharmaceutical Calculations, 536-112 Pharmacy Business Apps, 536-115 Pharmacy Law, 536-120 Reading Prescriptions, Fund of, 536-138 Pharmacy Community Clinical
Restricted to students admitted to the following program(s): Pharmacy Technician

536-138 Pharmacy Community Clinical **2 cr**

This course prepares the learner to apply policies and procedures in the pharmacy, complete the ordering process to meet inventory goals, bill third parties for patient prescriptions, process prescriptions, identify medical and surgical supplies for customers, process controlled substance prescriptions, compound extemporaneous products, maintain patient medical histories, and fulfill duties in unique service areas.
Corequisite(s): 536-110 Pharmaceutical Calculations, 536-112 Pharmacy Business Apps, 536-115 Pharmacy Law, 536-120 Reading Prescriptions, Fund of, 536-134 Pharmacy Benefits-Managing
Restricted to students admitted to the following program(s): Pharmacy Technician

536-140 Pharmacy Hospital Clinical **2 cr**

In this course, students will have the opportunity to experience the daily activities of a pharmacy technician in a hospital pharmacy setting. Students will learn how medication orders are prepared, processed, and delivered along with maintaining medication inventory in several areas, interacting with other medical staff and following policies and procedures of the hospital and pharmacy.
Corequisite(s): 536-122 Pharmacology for Pharmacy Tech, 536-124 Pharmacy Drug Dist. Systems, 536-126 Pharmacy Parenteral Admixtures, 536-141 Hospital Pharmacy Lab
Restricted to students admitted to the following program(s): Pharmacy Technician

536-141 Hospital Pharmacy Lab **2 cr**

This course is a blend of both hands-on lab activities and clinical site experiences in daily tasks performed by pharmacy technicians in inpatient settings. Topics covered include unit-dose packaging, filling of unit dose charts, IV compounding, interpreting physician orders, and utilization of aseptic technique in laminar flow hood settings.
Corequisite(s): 536-122 Pharmacology for Pharmacy Tech, 536-124 Pharmacy Drug Dist. Systems, 536-126 Pharmacy Parenteral Admixtures, 536-140 Pharmacy Hospital Clinical
Restricted to students admitted to the following program(s): Pharmacy Technician

543 Nursing

543-101 Nursing Fundamentals **2 cr**

This course focuses on basic nursing concepts that the beginning nurse will need to provide care to diverse patient populations across the lifespan. Current and historical issues impacting nursing will be explored within the scope of nursing practice. The nursing process will be introduced as a framework for organizing the care of patients with alterations in cognition, elimination, comfort, grief/loss, mobility, integument, and fluid/electrolyte balance. Note: For Online offerings of this course: Online test dates are announced/posted in advance for students. Faculty will list in syllabus how far ahead students may work in an online course. Online courses are NOT self-paced or independent study. Faculty will list in the syllabus use of acceptable proctors. Faculty will NOT leave tests open more than one day unless pre-arranged and agreed upon in advance.
Prerequisite(s): 806-177 Gen Anatomy & Physiology or 806-140 Anatomy & Physiology I or 806-207 Anatomy & Physiology 1
Restricted to students admitted to the following program(s): Nursing-Associate Degree, Practical Nursing

543-102 Nursing Skills **3 cr**

This course focuses on development of clinical skills and physical assessment across the lifespan. Content includes mathematic calculations and conversions related to clinical skills, blood pressure assessment, aseptic technique, wound care, oxygen administration, tracheostomy care, suctioning, management of enteral tubes, basic medication administration, glucose testing, enemas, ostomy care, and catheterization. In addition the course includes techniques related to obtaining a health history and basic physical assessment skills using a body systems approach.
Prerequisite(s): 543-101 Nursing Fundamentals and 543-103 Nursing Pharmacology and (806-177 Gen Anatomy & Physiology or 806-207 Anatomy & Physiology 1 or 806-140 Anatomy & Physiology I)
Restricted to students admitted to the following program(s): Nursing-Associate Degree, Practical Nursing

543-103 Nursing Pharmacology **2 cr**

This course introduces the principles of pharmacology, including drug classifications and their effects on the body. Emphasis is on the use of the components of the nursing process when administering medications. Note: For Online offerings of this course: Online test dates are announced/posted in advance for students. Faculty will list in syllabus how far ahead students may work in an online course. Online courses are NOT self-paced or independent study. Faculty will list in the syllabus use of acceptable proctors. Faculty will NOT leave tests open more than one day unless pre-arranged and agreed upon in advance.
Prerequisite(s): 806-177 Gen Anatomy & Physiology or 806-207 Anatomy & Physiology 1 or 806-140 Anatomy & Physiology I
Restricted to students admitted to the following program(s): Nursing-Associate Degree, Practical Nursing

543-104 Nsg: Intro Clinical Practice **2 cr**

This introductory clinical course emphasizes basic nursing skills and application of the nursing process in meeting the needs of diverse clients across the lifespan. Emphasis is placed on performing basic nursing skills, the formation of nurse-client relationships, communication, data collection, documentation, and medication administration.
Prerequisite(s): 543-101 Nursing Fundamentals and 543-102 Nursing Skills and 543-103 Nursing Pharmacology and (806-177 Gen Anatomy & Physiology or 806-207 Anatomy & Physiology 1 or 806-140 Anatomy & Physiology I)
Restricted to students admitted to the following program(s): Nursing-Associate Degree, Practical Nursing

543-105 Nursing Health Alterations **3 cr**

This course elaborates upon the basic concepts of health and illness as presented in Nursing Fundamentals. It applies theories of nursing in the care of clients through the lifespan, utilizing problem solving and critical thinking. This course will provide an opportunity to study conditions affecting different body systems and apply therapeutic nursing interventions. It will also introduce concepts of leadership, team building, and scope of practice. Note: For Online offerings of this course: Online test dates are announced/posted in advance for students. Faculty will list in syllabus how far ahead students may work in an online course. Online courses are NOT self-paced or independent study. Faculty will list in the syllabus use of acceptable proctors. Faculty will NOT leave tests open more than one day unless pre-arranged and agreed upon in advance.
Prerequisite(s): 543-101 Nursing Fundamentals and 543-102 Nursing Skills and 543-103 Nursing Pharmacology and 543-104 Nsg: Intro Clinical Practice and (806-177 Gen Anatomy & Physiology or 806-207 Anatomy & Physiology 1 or 806-140 Anatomy & Physiology I) and (809-188 Developmental Psychology or 809-130 Developmental Psychology)
Restricted to students admitted to the following program(s): Nursing-Associate Degree, Practical Nursing

543-106 Nursing Health Promotion **3 cr**

This course will cover topics related to health promotion in the context of the family throughout the lifespan. We will cover nursing care of the developing family, which includes reproductive issues, pregnancy, labor and delivery, post-partum, the newborn, and the child. Recognizing the spectrum of health families we will discern patterns associated with adaptive and maladaptive behaviors applying mental health principles. An emphasis is placed on teaching and supporting healthy lifestyle choices for individuals of all ages. Nutrition, exercise, stress management, empowerment, and risk reduction practices are highlighted. Study of the family will cover dynamics, functions, discipline styles, and stages of development. Note: For Online offerings of this course: Online test dates are announced/posted in advance for students. Faculty will list in syllabus how far ahead students may work in an online course. Online courses are NOT self-paced or independent study. Faculty will list in the syllabus use of acceptable proctors. Faculty will NOT leave tests open more than one day unless pre-arranged and agreed upon in advance.
Prerequisite(s): 543-101 Nursing Fundamentals and 543-102 Nursing Skills and 543-103 Nursing Pharmacology and 543-104 Nsg: Intro Clinical Practice and (806-177 Gen Anatomy & Physiology or 806-207 Anatomy & Physiology 1 or 806-140 Anatomy & Physiology I) and (809-188 Developmental Psychology or 809-130 Developmental Psychology)
Restricted to students admitted to the following program(s): Nursing-Associate Degree, Practical Nursing

543-107 Nsg: Clin Care Across Lifespan **2 cr**

This clinical experience applies nursing concepts and therapeutic interventions to clients across the lifespan. It also provides an introduction to concepts of teaching and learning. Extending care to include the family is emphasized.
Prerequisite(s): 543-101 Nursing Fundamentals and 543-102 Nursing Skills and 543-103 Nursing Pharmacology and 543-104 Nsg: Intro Clinical Practice
Restricted to students admitted to the following program(s): Nursing-Associate Degree, Practical Nursing

543-108 Nsg: Intro Clinical Care Mgt **2 cr**

This clinical experience applies nursing concepts and therapeutic nursing interventions to groups of clients across the lifespan. It also provides an introduction to leadership, management, and team building.
Prerequisite(s): 543-101 Nursing Fundamentals and 543-102 Nursing Skills and 543-103 Nursing Pharmacology and 543-104 Nsg: Intro Clinical Practice and (809-188 Developmental Psychology or 809-130 Developmental Psychology)
Restricted to students admitted to the following program(s): Nursing-Associate Degree, Practical Nursing

543-109 Nsg: Complex Health Alterat 1 **3 cr**

This course prepares the learner to expand knowledge from previous courses in caring for clients across the lifespan with alterations in cardiovascular, respiratory, endocrine, and hematologic systems as well as clients with fluid/electrolyte and acid-base imbalance, and alterations in comfort. Note: For Online offerings of this course: Online test dates are announced/posted in advance for students. Faculty will list in syllabus how far ahead students may work in an online course. Online courses are NOT self-paced or independent study. Faculty will list in the syllabus use of acceptable proctors. Faculty will NOT leave tests open more than one day unless pre-arranged and agreed upon in advance.
Prerequisite(s): 543-105 Nursing Health Alterations and 543-106 Nursing Health Promotion and 543-107 Nsg: Clin Care Across Lifespan and 543-108 Nsg: Intro Clinical Care Mgt and (806-179 Adv Anatomy & Physiology or 806-141 Anatomy & Physiology II) or (806-207 Anatomy & Physiology 1 and 806-208 Anatomy & Physiology 2) and (806-197 Microbiology or 806-132 Applied Microbiology)
Restricted to students admitted to the following program(s): Nursing-Associate Degree

543-110 Nsg: Mental Health Comm Con **2 cr**

This course will cover topics related to the delivery of community and mental health care. Specific health needs of individuals, families, and groups will be addressed across the lifespan. Attention will be given to diverse and at-risk populations. Mental health concepts will concentrate on adaptive/maladaptive behaviors and specific mental health disorders. Community resources will be examined in relation to specific types of support offered to racial, ethnic, economically diverse individuals and groups. Note: For Online offerings of this course: Online test dates are announced/posted in advance for students. Faculty will list in syllabus how far ahead students may work in an online course. Online courses are NOT self-paced or independent study. Faculty will list in the syllabus use of acceptable proctors. Faculty will NOT leave tests open more than one day unless pre-arranged and agreed upon in advance.
Prerequisite(s): 543-105 Nursing Health Alterations and 543-106 Nursing Health Promotion and 543-107 Nsg: Clin Care Across Lifespan and 543-108 Nsg: Intro Clinical Care Mgt and (806-179 Adv Anatomy & Physiology or 806-141 Anatomy & Physiology II) or (806-207 Anatomy & Physiology 1 and 806-208 Anatomy & Physiology 2)
Restricted to students admitted to the following program(s): Nursing-Associate Degree

543-111 Nsg: Intermed Clin Practice **3 cr**

This intermediate level clinical course develops the RN role when working with clients with complex health care needs. A focus of the course is developing skills needed for managing multiple clients and priorities. Using the nursing process students will gain experience in adapting nursing practice to meet the needs of clients with diverse needs and backgrounds.
Prerequisite(s): (809-198 Intro to Psychology or 809-199 Psychology of Human Relations or 809-251 General Psychology) and (806-197 Microbiology or 806-132 Applied Microbiology) and (806-179 Adv Anatomy & Physiology or 806-207 Anatomy & Physiology 1 and 806-208 Anatomy & Physiology 2) or 806-141 Anatomy & Physiology II
Restricted to students admitted to the following program(s): Nursing-Associate Degree

543-112 Nursing Advanced Skills **1 cr**

This course focuses on the development of advanced clinical skills across the lifespan. Content includes advanced IV skills, blood product administration, chest tube systems, basic EKG interpretation and nasogastric/feeding tube insertion.
Prerequisite(s): 543-105 Nursing Health Alterations and 543-106 Nursing Health Promotion and 543-107 Nsg: Clin Care Across Lifespan and 543-108 Nsg: Intro Clinical Care Mgt and (806-179 Adv Anatomy & Physiology or 806-141 Anatomy & Physiology II) or (806-207 Anatomy & Physiology 1 and 806-208 Anatomy & Physiology 2)
Restricted to students admitted to the following program(s): Nursing-Associate Degree

543-113 Nsg: Complex Health Alterat 2 **3 cr**

This course prepares the learner to expand knowledge and skills from previous courses in caring for clients across the lifespan with alterations in the immune, neuro-sensory, musculoskeletal, gastrointestinal, hepatobiliary, renal/urinary and the reproductive systems. The learner will also focus on management of care for clients with high-risk perinatal conditions, high-risk newborns and the ill child. Synthesis and application of previously learned concepts will be evident in the management of clients with critical/life threatening situations. Note: For Online offerings of this course: Online test dates are announced/posted in advance for students. Faculty will list in syllabus how far ahead students may work in an online course. Online courses are NOT self-paced or independent study. Faculty will list in the syllabus use of acceptable proctors. Faculty will NOT leave tests open more than one day unless pre-arranged and agreed upon in advance.
Prerequisite(s): 543-109 Nsg: Complex Health Alterat 1 and 543-110 Nsg: Mental Health Comm Con and 543-111 Nsg: Intermed Clin Practice and 543-112 Nursing Advanced Skills and (809-198 Intro to Psychology or 809-199 Psychology of Human Relations or 809-251 General Psychology) and (806-197 Microbiology or 806-132 Applied Microbiology)

543-114 Nsg: Mgt & Profess Concepts **2 cr**

This course covers nursing management and professional issues related to the role of the RN. Emphasis is placed on preparing for the RN practice. Note: For Online course offerings of this course: Online test dates are announced/posted in advance for students. Faculty will list in syllabus how far ahead students may work in an online course. Online courses are NOT self-paced or independent study. Faculty will list in the syllabus use of acceptable proctors. Faculty will NOT leave tests open more than one day unless pre-arranged and agreed upon in advance.
Prerequisite(s): 543-109 Nsg: Complex Health Alterat 1 and 543-110 Nsg: Mental Health Comm Con and 543-111 Nsg: Intermed Clin Practice and 543-112 Nursing Advanced Skills and (809-198 Intro to Psychology or 809-199 Psychology of Human Relations or 809-251 General Psychology) and (806-197 Microbiology or 806-132 Applied Microbiology)

543-115 Nsg: Adv Clinical Practice **3 cr**

This advanced clinical course requires the student to integrate concepts from all previous courses in the management of groups of clients facing complex health alterations. Students will have the opportunity to further develop critical thinking skills using the nursing process in making clinical decisions. Continuity of care through interdisciplinary collaboration is emphasized.
Prerequisite(s): 543-109 Nsg: Complex Health Alterat 1 and 543-110 Nsg: Mental Health Comm Con and 543-111 Nsg: Intermed Clin Practice and 543-112 Nursing Advanced Skills and (809-198 Intro to Psychology or 809-199 Psychology of Human Relations or 809-251 General Psychology) and (806-197 Microbiology or 806-132 Applied Microbiology)

543-116 Nursing Clinical Transition **2 cr**

This clinical experience prepares the student to assume the role of graduate nurse. The course promotes clinical decision-making, delegation, and collaboration to achieve client and organizational outcomes. Continued professional development is fostered.
Prerequisite(s): 543-109 Nsg: Complex Health Alterat 1 and 543-110 Nsg: Mental Health Comm Con and 543-111 Nsg: Intermed Clin Practice and 543-112 Nursing Advanced Skills and (809-198 Intro to Psychology or 809-199 Psychology of Human Relations or 809-251 General Psychology) and (806-197 Microbiology or 806-132 Applied Microbiology)

543-300 Nursing Assistant **3 cr**

This 120-hour course is a combination lecture, lab in a classroom and clinical practice conducted in long-term care facilities. It covers basic body function and structure, nutrition, nursing care procedures, and ethical and legal considerations. This course is recognized by the Wisconsin Department of Health Services as a nursing assistant training program. For successful completion you'll need to have access to a computer with an Internet hookup. This could be in your home, at a nearby library, at one of the CVTC branch campuses, or another location that is convenient for you. A Wisconsin criminal background check is required at the start of class. This course is not eligible for financial aid.

550 Alcohol & Other Drug Abuse

550-102 SUD Counseling/Interviewing **3 cr**

Introduction and application of basic counseling/communication micro-skills used in individual and group therapy. Ivey's intentional interviewing and counseling and Miller's Motivational Interviewing will provide the foundation for utilizing these skills with substance use disorder patients. Learners will record and critique practice in the lab setting and must demonstrate effective counseling skills.
Prerequisite(s): 550-108 Substance Use: Risk & Reality and 550-113 Intro to Prev&Trtmt Profession and 550-114 Ethics & Public Policy and (801-196 Oral/Interpersonal Comm or 810-201 Fundamentals of Speech) and (809-198 Intro to Psychology or 809-251 General Psychology)

550-104 Internship I **2 cr**

Learners spend eight hours per week over 16 weeks (total 128 hours) at a clinical site to observe, and get some introductory practice in the substance use disorder counselor eight practice dimensions (the basic tasks and responsibilities that constitute the work of a substance use disorder counselor), and 12 core functions (the observation and practice of skills while treating substance use disorder patients under the close supervision of a clinical supervisor). Learners read agency policies and procedures, document clinical hours, develop a learning plan, submit weekly clinical notes on progress toward plan goals, complete written assignments and tests, engage in discussion, and demonstrate core function knowledge and professionalism and employability skills. Eight hours are allocated for on-campus seminars held throughout the internship.
Prerequisite(s): 550-102 SUD Counseling/Interviewing and 550-110 SUD Counseling Theory/Methods and 550-122 Psychopharmacology and 550-154 Culturally Skilled Counseling and 809-188 Developmental Psychology and 550-111 Group Facilitation

550-106 Internship Advanced I **3 cr**

Learners spend 24 hours per week over 16 weeks at a treatment-providing agency for the first eight weeks of the semester (total 192 hours). They integrate knowledge, skills, and attitudes acquired in the first three semesters through practice of the eight professional practice dimensions and twelve core functions of substance use disorder counselors while supervised by a licensed clinical supervisor. Learners document clinical hours, develop a learning plan, submit weekly clinical notes on progress toward plan goals, complete written assignments, engage in discussion, demonstrate core function practice, professionalism and employability skills, and apply for the SAC license.
Prerequisite(s): 550-104 Internship I and 550-111 Group Facilitation and 550-115 SUD Assessment & Tx Planning and 550-121 Info Mgmt for Prev & Treatment and 550-122 Psychopharmacology and 550-160 SUDs & Mental Disorders and (809-196 Intro to Sociology or 809-271 Introductory Sociology) and 550-120 Family & Community Systems
Corequisite(s): 550-107 Internship Advanced II, 550-150 Issues-Internship II Seminar

550-107 Internship Advanced II **3 cr**

Learners continue practical field experience started in 550-106 Internship Advanced I for 24 hours per week over the second eight weeks of the semester. Learners document clinical hours, submit weekly clinical notes on progress toward learning plan goals, complete written assignments, engage in discussion, and demonstrate core function competency and professionalism and employability skills.
Corequisite(s): 550-106 Internship Advanced I, 550-150 Issues-Internship II Seminar

550-108 Substance Use: Risk & Reality **3 cr**

Available to all students interested in understanding levels of risk associated with substance use and successful methods of prevention for reducing problems over the entire lifespan at community and family levels, this is a required course for students enrolled in the AODA associate degree program. Topics include: risk associated with substance use; making low-risk choices; reducing risks (for those who do not already have a substance use disorder) of experiencing substance-related health or impairment problems; communicating family expectations for behavior and clarifying what is acceptable regarding substance use; expanding prevention practices to the community.

550-110 SUD Counseling Theory/Methods **3 cr**

After an introduction and overview of psychoanalytic, Adlerian and Existential theory, learners study and practice common therapies and their uses for substance use disorder treatment: person-centered, Gestalt, cognitive-behavioral, reality, and others as time permits. Learners are introduced to 12-step approaches, attend self-help group meetings, read textbooks, complete written assignments, practice theory-based techniques, and take written exams.
Prerequisite(s): 550-108 Substance Use: Risk & Reality and 550-113 Intro to Prev&Trtmt Profession and 550-114 Ethics & Public Policy and (801-136 English Composition 1 or 801-219 English Composition 1) and (809-198 Intro to Psychology or 809-251 General Psychology)

550-111 Group Facilitation **2 cr**

Introduction to theory and practice of group dynamics in the treatment field. Knowledge areas covered are: types of groups, ethical considerations, effective group leadership, and stages of group development. Learners will record and critique practice in the lab setting, will function as group members, and must demonstrate effective group facilitation skills.
Prerequisite(s): 550-102 SUD Counseling/Interviewing and 550-110 SUD Counseling Theory/Methods and 809-188 Developmental Psychology and 550-154 Culturally Skilled Counseling

550-113 Intro to Prev&Trtmt Profession **3 cr**

Explore the causes and effects of substance use disorders treatment and prevention settings and approaches, resources, and professional certification. Outline assessment criteria for clinical identification of these disorders and effective treatment techniques. Differentiate prevention from and treatment approaches and resources. Investigate own lifestyle choices. Discover review history of the profession, current issues, professional and ethical standards, and knowledge and skills expectations for substance use disorder counseling.
Restricted to students admitted to the following program(s): Alcohol & Other Drug Abuse

550-114 Ethics & Public Policy **3 cr**

Examine personal attitudes, values, and motivations regarding working in the treatment profession. Apply federal and state guidelines to case examples in the areas of confidentiality, patients' rights, dual relationships, fraudulent behavior, and other ethical issues. Become familiar with professional codes of conduct for the substance use disorder counselor and adhere to them by practicing in accordance with the highest ethical standards. Review the intent and effectiveness of public policies relative to the treatment profession. Advocacy on current policy issues affected by managed care and government structure and process is introduced.
Restricted to students admitted to the following program(s): Alcohol & Other Drug Abuse

550-115 SUD Assessment & Tx Planning **3 cr**

Practice clinical evaluation/assessment and treatment planning for substance use disorders. Differentiate screening and diagnostic tools. Demonstrate effective interviewing skills to collect relevant patient history/data. Demonstrate diagnostic and documentation skills using current DSM criteria for substance use disorders, and utilize Wisconsin UPC guidelines. Write Treatment plans based on evaluation findings. Learners will complete interview and documentation practice, along with reading, written assignments and exams.
Prerequisite(s): 550-102 SUD Counseling/Interviewing and 550-110 SUD Counseling Theory/Methods and 550-122 Psychopharmacology and 550-154 Culturally Skilled Counseling and 801-197 Technical Reporting and 809-188 Developmental Psychology and 550-121 Info Mgmt for Prev & Treatment and 550-160 SUDs & Mental Disorders

550-120 Family & Community Systems **3 cr**

An introduction to the systems view of family. Identify family-centered approaches, including brief solution-focused therapy, in preventing and treating substance abuse. Learners draw on their own family system to learn how to use genograms and evaluate family life cycles in the larger context. Learners read textbooks, complete written assignments and exams, practice family therapy approaches, and complete a genogram presentation.
Prerequisite(s): 550-102 SUD Counseling/Interviewing and 550-110 SUD Counseling Theory/Methods and 550-111 Group Facilitation and (809-196 Intro to Sociology or 809-271 Introductory Sociology)

550-121 Info Mgmt for Prev & Treatment **2 cr**

Lecture and laboratory activities focus on the collection, entry, storage and retrieval of health information. Learners are introduced to the record keeping responsibilities of substance use disorder health care providers including legal mandates (42 CFR Part 2 and HIPAA), agency accreditation requirements, managed care, utilization review and various payment systems, level of care documentation, health care record entries, and grant writing.
Prerequisite(s): 550-102 SUD Counseling/Interviewing and 550-110 SUD Counseling Theory/Methods and (801-197 Technical Reporting or 801-153)

550-122 Psychopharmacology **3 cr**

A basic pharmacology course covering mainly drugs capable of altering states of consciousness. Pharmacological classes of drugs studies include: CNS stimulants and depressants, hallucinogens, marijuana, inhalants, antidepressants, antipsychotics, and alcohol. Additional topics include: neuroanatomy, the action of agonists and antagonist on cell receptors, dosage calculations, and the development of tolerance. Each drug class studied will discuss the mechanism of action, metabolism, pharmacokinetics, dosage, names (street, generic and brand), approved medical use, chronic and acute toxicity, symptoms of withdrawal, drug interactions, dosage, routes of administration, and available preparations. The use and benefits of both conventional and computer based pharmacological reference material will be stressed. Students will learn the incidence of drug use and abuse in society, the pharmacology of selected drugs, and the principles of altering one's state of consciousness. Students will gain an established personal view of drug use and will be able to communicate their attitudes. Alternatives to substance abuse and approaches to prevention and community resources will be explored.
Prerequisite(s): 550-108 Substance Use: Risk & Reality and 550-113 Intro to Prev&Trtmt Profession and 550-114 Ethics & Public Policy and 806-177 Gen Anatomy & Physiology and (809-198 Intro to Psychology or 809-251 General Psychology)

550-150 Issues-Internship II Seminar **3 cr**

A series of eight 6-hour workshops conducted concurrently with Internship Advanced I and Internship Advanced II. Core function development at the internship sites is enhanced through this classroom experience as learners review ethical codes, complete the SAC-IT licensure process, evaluate themselves as counselors-in-training, develop personal learning plans that mimic treatment plan format, process the developmental stages of the internship experience, complete the SAC licensure exam, address sample cases, complete a written case study, and prepare for graduation and employment or further education.
Corequisite(s): 550-106 Internship Advanced I, 550-107 Internship Advanced II

550-154 Culturally Skilled Counseling **3 cr**

Learners develop an understanding of diversity among people and systems so they can provide substance use disorder counseling services that respond to the differences between and within cultures relative to norms, values, beliefs, communication styles, world views, and political, social, and historical factors. Learners also begin to recognize individual and institutional racism and prejudice, bias in professional training, racial identity development, and cultural competency issues in the substance use disorder counseling profession. Learners engage in self-examination, discussion, class and community activities, and relate these concepts to individualized treatment planning for the substance use disorder patient based on national CLAS standards outlined by the U.S. Office of Minority Health.
Prerequisite(s): 550-108 Substance Use: Risk & Reality and 550-113 Intro to Prev&Trtmt Profession and 550-114 Ethics & Public Policy and (809-198 Intro to Psychology or 809-251 General Psychology) and 550-102 SUD Counseling/Interviewing and 550-110 SUD Counseling Theory/Methods

550-160 SUDs & Mental Disorders **3 cr**

Relying heavily on an understanding of DSM criteria, learners study basic concepts of common mental disorders and therapeutic approaches, medications, and resources to provide holistic health care for patients with substance use disorders and co-occurring mental health problems.
Prerequisite(s): 550-102 SUD Counseling/Interviewing and 550-110 SUD Counseling Theory/Methods and 550-122 Psychopharmacology and 550-154 Culturally Skilled Counseling and 809-188 Developmental Psychology

550-161 SUDs & Criminality **3 cr**

An introduction to understanding and treating the substance use disorder patient who is also a criminal justice offender. Learners develop an understanding of how substance use issues impact major areas of the criminal justice offender patient's life. Focus is on understanding how the criminal justice system and the cognitive distortions of criminal thinking affect assessment and treatment planning for the patient.
Prerequisite(s): 550-102 SUD Counseling/Interviewing and 550-110 SUD Counseling Theory/Methods and 550-122 Psychopharmacology and 550-154 Culturally Skilled Counseling and 809-188 Developmental Psychology

557 Library Science

557-111 Fnd of Library & Info Services **3 cr**

This course introduces library science, libraries, and the various services they are charged with providing. Library trends, their role in the community or institution, and governing relationships will be presented. In addition, the importance of customer service, career types, and career readiness will be discussed. Students will begin development of a digital portfolio repository for their program coursework which will be a valuable tool in employment-seeking.

557-113 Basic Public Library Admin **3 cr**

This course introduces an overview of public library administration. Emphasis will be on library terminology, library structures, basic daily operations including budgeting, patron-staff interactions, challenges and controversies of libraries in the community, library infrastructures, and providing exceptional customer service.

557-115 School Library Principles **3 cr**

This course provides an introduction to libraries in an educational setting with a focus on public school libraries or media centers. Working with children and young adults in a learning environment, promoting a positive learning environment, managing behavior, and working with diverse students will be emphasized in this course. Emerging trends, structures, digital collections and challenges will also be discussed.

557-117 Managing & Org Collections **3 cr**

This course provides an examination of library's collections. Emphasis will be placed on library classification systems, cataloging according to specific classification system, the ILS's role in cataloging, and understanding OCLC and local shared resources. Explores collection development including criteria for selection/de-selection as well as the associated challenges.

557-121 Fund of Access Services **3 cr**

This course provides an introduction to the fundamentals and emerging trends of access services in a library. An overview of circulation processes and procedures, the ILS, stacks management, course reserves, interlibrary loan and document delivery will be covered. Explores the role of customer service, maintaining patron privacy, and working with patrons from diverse backgrounds. The course will also cover access service barriers, ways to reduce barriers for library customers and safety and security trends in libraries.

557-123 Library & Edu Technologies **3 cr**

This course provides an examination of technologies that libraries and educational institutions use frequently or encounter on a typical basis, as well as technology trends, best practices, and new technologies on the horizon. Topics covered include instructional tools, common library and educational software, multifunctional printer/copiers, presentation platforms, publishing software, mobile devices, audio books/mp3, and more. Also included are Google Technologies, One Drive Technologies, and e-books and e-book platforms including OverDrive. A deeper dive into Excel, and its uses and applications in a library setting will be explored.
Prerequisite(s): 103-102 Microsoft Office Suite and 557-129 Online Learning & Technologies

557-125 Children's Literature & Srvs **3 cr**

This course introduces children's literature and related services in a variety of library types and educational settings. Emphasis will be on evaluating and selecting children's literature, developing engaging displays and activities, incorporating technologies and media into children's services, and presenting children's library materials. Trends, challenges, controversies, and barriers will also be discussed. The scope of this course is children ages 0 to 11.

557-127 Outreach & Community Services **3 cr**

This course provides an overview of services that libraries offer to communities or institutions. Emphasis will be placed on the importance of customer service, the reference interview, evaluating sources, library programming, readers' advisory, the growing role of technology in libraries, assisting patrons with their technology needs, and providing outreach and programming services to the public. Also covered is current trends, challenges, and controversies that libraries encounter when providing services to patrons.

557-128 Social Media & Web Technology **3 cr**

This course provides more in-depth coverage on the role of the internet and web technologies in libraries and educational trends. Internet security, digital citizenship, browsers, and cloud storage/ sharing will be discussed. Various tools including email, social media platforms and their roles in the library, video production/tutorial tools, and video platforms including YouTube, open access software including photo software and survey tools, and more will be explored with emphasis on how they can be applied in libraries and schools. Also included is an introduction to website design best practices and editing.

557-129 Online Learning & Technologies **1 cr**

This course provides a comprehensive introduction to success strategies as an online learner. Different student support services will be introduced such as academic services, advising, diversity and disability resource with an emphasis on online learner support and the use of technologies for the program, including the course management system. In addition, time management and organization concepts will be provided.

557-131 Young Adult Literature & Srvs **3 cr**

This course introduces young adult literature and related services in a variety of library types and educational settings. Emphasis will be on evaluating, assessing, and selecting young adult materials, providing readers' advisory and reading lists, incorporating technologies and media to engage young adults, and leaving an impactful impression of library services for the future. Trends, challenges, controversies, and barriers will also be discussed. The scope of this course is young adults ages 12 to 18.

557-133 Fund of Reference Services **3 cr**

This course provides an introduction to the fundamentals of reference and the role of instructional services. An overview of reference services will be examined while providing excellent customer service and follow-through to patrons. Emphasis on using electronic databases, OPACs, open educational resources, compiling bibliographies, examining patron feedback, and interpreting reference questions through the reference interview process.

557-141 Library Mentorship **3 cr**

The LIS practicum provides hands-on experience under the mentorship of experienced librarians or library staff. Students are expected to complete 120 hours of service at an approved library location and engage in a concentration of interest to gain valuable work experience. This course will also prepare students for work in libraries by completing a resume, portfolio, cover letter, and practicing interviewing techniques. It is expected that the candidates will have successfully completed all the prerequisite program courses and had a mentorship proposal approved prior to placement.
Prerequisite(s): 557-111 Fnd of Library & Info Services and 557-121 Fund of Access Services and 557-123 Library & Edu Technologies and 557-133 Fund of Reference Services and 557-117 Managing & Org Collections

557-143 Adult Literature & Services **3 cr**

This course introduces adult literature, programming and related services in a variety of library types. Emphasis will be on evaluating, assessing, and selecting adult materials, providing readers' advisory and reading lists, incorporating technologies and media. Trends, challenges, controversies, and barriers will also be discussed.

557-145 Fundamentals of Tech Services **3 cr**

This course provides an introduction to the fundamentals and emerging trends of technical services in a library. An overview of acquisitions, processing and maintaining print materials, managing electronic collections, and maintaining serials subscriptions will be covered. Explores basic terminology related to technical services and related general policies and procedures.

557-147 Advanced Public Library Admin **3 cr**

This course provides a more in-depth view of public library administration. Emphasis will be on leading staff and volunteers, forming partnerships, basic legal issues related to public library services, the role of continuing education in the community, creating awareness and marketing libraries, managing change in the workplace, and advocating for the Library.
Prerequisite(s): 557-113 Basic Public Library Admin

557-148 Information Literacy **3 cr**

This course examines the role of information literacy in libraries and educational settings. Students will strengthen their own research skills by collaborating, evaluating, and communicating information with digital tools and resources, while learning to lead inquiry-based learning experiences that enable library users to become critical thinkers and effective, responsible users of ideas and information.

557-149 Info Ethics & Legal Issues **3 cr**

This course introduces you to ethical and legal issues related to information use and dissemination in libraries and society. You will examine the library profession's stance on intellectual freedom and censorship; ethical and legal theories of information; professional ethics and law; copyright and intellectual property; and security and privacy issues.
Prerequisite(s): 557-111 Fnd of Library & Info Services

601 Air Conditioning & Refrigeration Technology

601-100 Basic HVAC Concepts **2 cr**

This course deals with how air is treated by HVAC (Heating, Ventilating, and Air Conditioning) equipment to maintain health and comfort. It will assist the beginning or less experienced comfort specialist in understanding the principles that underlie present day heating, ventilation, and air conditioning equipment, both residential and commercial.

601-101 Refrigeration Systems **2 cr**

Fundamentals of refrigeration and air conditioning systems. Refrigerant reclamation, soldering, and brazing, piping, and installation of systems.

601-105 Refrigeration Principles **2 cr**

In this course, the student will properly use tools and test equipment for installation and servicing of domestic and commercial refrigeration systems. Soldering, brazing and flaring of copper tube systems is an essential skill developed in this course.
Prerequisite(s): 601-106 Refrigeration Theory and (601-140 Electricity Theory and 601-148 Electricity Principles or 601-141 Electricity-HVAC)

601-106 Refrigeration Theory **1 cr**

This course will cover the basic refrigeration cycle and components. Different refrigerants and proper handling will also be included.

601-107 Heating Theory **1 cr**

This course will cover the basics of how heat is transferred, moved and the properties of combustion.

601-108 Prncples of Gas Heat & Airfl **2 cr**

Gas heating systems are evaluated and tested. Operation, service and maintenance are performed on gas heating systems. Evaluating the proper airflow patterns for a variety of applications is emphasized. Prerequisites are required.
Prerequisite(s): 601-107 Heating Theory and (601-140 Electricity Theory and 601-148 Electricity Principles or 601-141 Electricity-HVAC)

601-109 Prin of Oil, Elec & Hydron Htg **1 cr**

Oil, electric and hydronic heating systems are evaluated and tested. Operation, service and maintenance are performed on oil, electric and hydronic heating systems. Prerequisites are required.
Prerequisite(s): 601-107 Heating Theory and (601-140 Electricity Theory and 601-148 Electricity Principles or 601-141 Electricity-HVAC)

601-112 Principles of Air Handling **3 cr**

The purpose of this course is to inform the student about air and analyzing its properties. The study of fans, fan laws, system balancing, duct layout and sizing is detailed. The students are given the opportunity to work on a variety of air handling systems.
Prerequisite(s): 601-107 Heating Theory and 601-108 Prncples of Gas Heat & Airfl and 601-109 Prin of Oil, Elec & Hydron Htg

601-113 HVAC Systems Design **3 cr**

In this course the student designs air conditioning, heating, and ventilation systems for commercial buildings. The building may be an office building, school, hotel, etc. The student performs room by room load calculations, duct layout and pipe sizing, and equipment selection. This course runs concurrently with Drafting HVAC (601-117). The system is designed in accordance with the International Code as modified by the state of Wisconsin.
Prerequisite(s): 601-112 Principles of Air Handling and 601-161 HVAC Load Calc & Psychrometric and 601-114 Plan & Print Reading-HVAC
Corequisite(s): 601-117 Drafting-HVAC

601-114 Plan & Print Reading-HVAC **2 cr**

In this course the fundamentals of reading and interpreting architectural, plumbing, HVAC, and electrical plans for the sizing and installation of equipment is covered. Working with actual plans of actual buildings the student is able to understand all aspects of basic plan reading. The International Code as modified by the State of Wisconsin is studied by the students giving them the necessary skills for proper system layout and design.

601-116 Principles of Air Conditioning **2 cr**

The purpose of this course will help the student understand how air is treated by air conditioning equipment to maintain our health, comfort, and cooling environment. The principles of air conditioning will be covered with a look at various types of air conditioning equipment. Equipment included would be air conditioners, heat pumps (geothermal and air-to-air) rooftops and other types of related equipment. This course will assist the student in understanding the principles that underlie present day air conditioning equipment, both residential and commercial.

Prerequisite(s): 601-106 Refrigeration Theory and (601-140 Electricity Theory and 601-148 Electricity Principles or 601-141 Electricity-HVAC)

601-117 Drafting-HVAC **2 cr**

In this course the student draws the HVAC system for a two-story commercial building of his or her choice. The building may be an office building, school, hotel, etc. The student uses AutoCAD to create duct layout and piping drawings, equipment schedules, and details for the HVAC system he or she designs in HVAC System Design class. All equipment is selected by the student, and the system is designed in accordance with the International Code as modified by the state of Wisconsin.

Prerequisite(s): (601-165 CAD - HVAC or 606-165 CAD - HVAC)

Corequisite(s): 601-113 HVAC Systems Design

601-118 Sustainability for HVAC **1 cr**

The purpose of this course is to answer the question, what is sustainability? The student will explore how sustainability is integrated into HVAC/R systems and building management systems. Improving efficiencies in systems and buildings would be the major goal.

601-119 Hydronic System Design **3 cr**

This course consists of the design and selection of modern hydronic heating systems and geothermal heat pumps. This course (specifically designed for HVAC/R students) studies the way which different components are connected, which translates in energy efficient operating systems. Detailed coverage of open and closed loop geothermal heat pump systems is covered. Systems analyzed include various heat sources, piping and fittings, circulating pumps, heat emitters, radiant panel heating, distribution piping, expansion tanks, air removal, and auxiliary loads. The student will perform sizing, layout, and design of complete systems.

Restricted to students admitted to the following program(s): Air Cond, Heating & Refrg Tech

601-121 HVAC/R Service & Applications **3 cr**

Students learn the techniques to install, test, maintain, and troubleshoot residential and commercial air conditioning and refrigeration systems. Students will have the benefit of learning in a well-equipped lab that provides experience on both residential and commercial air conditioning and refrigeration systems. Equipment such as heat pumps (geothermal and air-to-air), rooftop air conditioners, walk-in freezers and furnaces, boilers, and other HVAV/R types of equipment will be worked on.
Prerequisite(s): 601-116 Principles of Air Conditioning and 601-105 Refrigeration Principles and 601-106 Refrigeration Theory
Restricted to students admitted to the following program(s): A/C, Htg & Refrigeration Tech, Air Cond, Heating & Refrg Tech

601-122 HVACR Industry Skills **1 cr**

This course is designed to teach the student specific skills related to the Heating, Ventilating, Air Conditioning and Refrigeration (HVACR) industry.
Restricted to students admitted to the following program(s): A/C, Htg & Refrigeration Tech, Air Cond, Heating & Refrg Tech

601-125 Safety - HVAC **1 cr**

This course provides OSHA based safety training for the HVAC industry.
Restricted to students admitted to the following program(s): A/C, Htg & Refrigeration Tech, Air Cond, Heating & Refrg Tech, Air Conditioning, Gas Heating & Airflow, Oil, Elec & Hydronic Htg, Refrigeration, Renewable Energy

601-130 Sheet Metal Layout **1 cr**

The student will layout and fabricate a variety of sheet metal fittings. Safe working practices are reviewed and stressed. The proper use of hand tools, shears, benders and other types of sheet metal equipment are detailed and demonstrated. One and two piece duct, reducers, elbows, offsets, plenums, drive cleats, S-locks, and square to round transitions are fabricated and assembled.

601-140 Electricity Theory **1 cr**

This course will cover the fundamentals of electricity as related to air conditioning, heating, and refrigeration. Ohms Law, circuits, direct and alternating current will be introduced.

601-142 Schematic Wiring-HVAC **2 cr**

Learning to read and interpret electrical schematics found on a variety of HVAC/R equipment is the priority. By referring to an electrical schematic the student wires and operates HVAC/R equipment. The course helps in explaining and showing how each electrical component functions in an electrical circuit.
Prerequisite(s): 601-141 Electricity-HVAC

601-143 Advanced HVAC Controls **2 cr**

The purpose of this course is to review the basic concepts of a HVAC control system. Becoming familiar with the components of a direct digital control (DDC) and pneumatic control system are a priority. The student becomes familiar with analog and binary inputs and outputs. Programming and evaluating control schemes as found on HVAC equipment is the main emphasis.
Prerequisite(s): 601-146 Schematic Wiring-HVACR and 601-147 Schematic Wiring-Trblshtng

601-144 Solar/Wind Applications **2 cr**

This course provides an overview of solar water heating, solar air heating, solar photovoltaic and wind applications. Students will be involved in the installation, maintenance, service and performance of these systems. Passive and active solar systems will be reviewed. The declination angle and the effect it has on the sun's radiation during winter and summer is detailed in site evaluation. The student will be given the opportunity to explore and evaluate small wind systems.

601-145 Geothermal Applications **1 cr**

This course explores the use of air source heat pumps and geothermal heat pumps in the HVAC industry. Students work on actual systems and learn the basics of installation, operations, maintenance and troubleshooting. The economics and practical applications are also examined.

601-146 Schematic Wiring-HVACR **1 cr**

The primary focus of this class is learning to read and interpret schematic symbols and diagrams. Students will be able to wire and operate various HVAC equipment using the schematics found on the equipment. They will also be able to identify individual circuits and their function when given a schematic diagram.
Prerequisite(s): 601-140 Electricity Theory and 601-148 Electricity Principles or 601-141 Electricity-HVAC

601-147 Schematic Wiring-Trblshtng **1 cr**

This course focuses on having students use their knowledge of schematics and electricity to troubleshoot a variety of HVAC/R systems. Both computer simulations and actual working equipment will be used to provide experience in troubleshooting. Emphasis will be on proper use of multi-meters and other electrical testing equipment to determine underlying faults.
Prerequisite(s): (601-140 Electricity Theory and 601-148 Electricity Principles or 601-141 Electricity-HVAC) and 601-146 Schematic Wiring-HVACR

601-148 Electricity Principles **2 cr**

Wiring and physical properties as they are related to electricity will be covered. Motors, controls and electrical meters used in the HVAC/R industry will be covered and applied.
Prerequisite(s): 601-140 Electricity Theory

601-151 Technical Problems-HVAC **2 cr**

This course utilizes the knowledge gained in previous courses. The student will be asked to diagnose and troubleshoot a variety of electrical and mechanical problems found on actual HVAC/R equipment. These problems are also simulated using computer programs. The student will complete a detailed start-up analysis on a gas and oil furnace.
Prerequisite(s): 601-107 Heating Theory and 601-108 Prncples of Gas Heat & Airfl and 601-109 Prin of Oil, Elec & Hydron Htg
Restricted to students admitted to the following program(s): A/C, Htg & Refrigeration Tech, Air Cond, Heating & Refrg Tech

601-161 HVAC Load Calc & Psychrometric **3 cr**

Computer software is used to calculate heat loss and heat gains on residential and commercial buildings. Prerequisite: 854-771 Basic Algebra.
Restricted to students admitted to the following program(s): A/C, Htg & Refrigeration Tech, Air Cond, Heating & Refrg Tech

601-165 CAD - HVAC **3 cr**

This course is designed to teach the basic elements of computer-aided drafting using AutoCAD software. The student learns how the system operates, basic entity control, editing functions, dimensioning, plotting, and template setups. The drafting commands are practiced by creating specific HVAC field related drawings. Individual study supported by short lectures and monitored drawing times supervised by instructors.
Prerequisite(s): (601-114 Plan & Print Reading-HVAC or 607-114 Plan and Print Reading-HVAC)

605 Electronic Technology

605-107 Basic Electronics with Digital **3 cr**

DC and AC circuit analysis from an electromechanical perspective. Topics covered include Ohm's Law, Watt's Law, series and parallel circuits, transformers and relays. Emphasis will be placed on troubleshooting and measurement of circuit parameters.

605-108 Electronic Control Devices **3 cr**

Electronic circuits and digital electronics from an electromechanical perspective. Topics covered include electronic switching devices, operational amplifiers, D-A and A-D conversions and basic digital circuits and systems. Emphasis will be placed on installation considerations, compatibility with other devices and troubleshooting.
Prerequisite(s): 605-107 Basic Electronics or 605-111 Basic Elec: Reactive Compnts

605-109 Industrial Computer Technology **2 cr**

This course examines the personal computer and associated networks as it applies to the industrial environment. Computer architecture, hardware requirements and limitations, and troubleshooting are emphasized, as are the networking requirements to maintain information flow between the production floor and the business administrative functions.
Prerequisite(s): 620-193 Electronic Software Applic

605-110 Basic Electronics: DC/AC **2 cr**

An introductory course that presents the scientific foundation used throughout electronics technology. This course supports the DC/AC state standard for electronics. Troubleshooting practices will be emphasized, and computer technologies will be used to enhance perception of the abstract. Hands-on laboratory exercises and instrumentation will reinforce theoretical concepts. For the Electromechanical student: Concurrent registration in Math 110 or concurrent registration in Math 120 or pass proficiency exam or completed Math 110.

605-111 Basic Elec: Reactive Compnts **1 cr**

DC and AC circuit analysis from an electromechanical perspective. Topics covered include capacitive and inductive reactive components. Emphasis will be placed on troubleshooting and measurement of circuit parameters.
Prerequisite(s): 605-110 Basic Electronics: DC/AC

605-116 Engineering Electronics **3 cr**

This course will give the student a basic understanding of electronics used in engineering. Emphasis will be on basic principles of electronics and how those may be applied to understanding the operation and troubleshooting of electronic instruments. Topics covered include active and passive devices, analog and digital circuits, and AC and DC circuits. Practical skills include bread-boarding, simulating circuits, circuit layout, printed circuit board fabrication, soldering, trouble shooting, using digital multi-meters, and oscilloscopes.

605-120 Devices **2 cr**

Electronic circuits from an electromechanical perspective. Topics covered include electronic switching devices, operational amplifiers, and A-D conversions. Emphasis will be placed on installation considerations, compatibility with other devices and troubleshooting.
Prerequisite(s): 605-107 Basic Electronics or 605-111 Basic Elec: Reactive Compnts

605-130 Digital Electronics **1 cr**

Digital electronics from an electromechanical perspective. Topics covered include basic digital circuits and systems and D-A conversions. Emphasis will be placed on installation considerations, compatibility with other devices and troubleshooting.
Prerequisite(s): 605-107 Basic Electronics or 605-111 Basic Elec: Reactive Compnts

605-134 Network Infrastructure Cncpts **2 cr**

This course provides students an overview of the fundamentals of the infrastructure elements that support computer networks and devices. Learners will study the basics of network cable installation and termination, meter usage, direct current (DC) circuits, alternating current (AC) circuits, AC wiring, uninterruptible power supply (UPS) selection, power conditioning, power management, power over Ethernet (POE), and digital logic. The course will be delivered via a combination of reading and homework assignments, lecture/discussion sessions, and hands-on laboratory exercises. Emphasis will be placed on safety and compliance with industry standards.
Restricted to students admitted to the following program(s): IT-Network Specialist

605-152 SCADA Concepts **2 cr**

SCADA stands for Supervisory Control and Data Acquisition. This course will focus on industrial applications of acquiring data from PLC based equipment using industrial and Ethernet networks. Display of data will use industrial display terminals such as the Allen-Bradley Panel View and Microsoft Excel spreadsheet using DDE technology. Additional applications utilizing ASCII text strings and HyperTerminal will be investigated.
Prerequisite(s): 620-136 PLC Applications

606 Mechanical Technology

606-102 Principles of Design **2 cr**

This course is designed to teach the fundamentals of computer-aided drafting principles from standard practices. AutoCAD software is used for technical drawing; topics include computer drawing entity commands, coordinate features, various editing functions, file maintenance, database management, prototype drawing, mechanical design dimensioning practices, the use of blocks, using library symbols, two-dimensional CAD design details, and printing or plotting. Detailed working drawings follow general dimensioning practices found in ASMEY14.5-2009.

606-103 Mechanical Design Concepts **2 cr**

This course introduces the student to the basic skills and knowledge required to understand how products are designed and documented. Students will measure and sketch parts to visualize 3-dimensional parts. The steps involved in the design process, problem-solving, and teamwork will be introduced through a simple design project. Students will be exposed to terminology, mechanical components, and software that are used in mechanical design.

606-104 Geometric Dimen & Tolerancing **3 cr**

Geometric dimensioning and tolerancing (GD&T) graphically defines limits of size, form, orientation, profile, location, and runout applications to ASME Y14.5-2009. GD&T standards include universal symbols and terms, position tolerancing verification, datum reference frame theory, datum (size) modifiers, datum targets, metrology and functional gage design application using a coordinate measuring open setup. Measurement of floating and fixed fasteners is applied to actual mechanical parts. GD&T will also be applied to welding fabrication drawings and assemblies.

606-112 Tool Design Practices **3 cr**

This course provides a fundamental background in the design and application of jigs, fixtures, rapid prototyping equipment and gauging devices that are used in the manufacturing process. Classroom work is done through design work on CAD and Solidworks and research of standard tooling components from a variety of resources.
Prerequisite(s): 606-131 Solid Modeling 2 and 606-161 CAD, Basic

606-116 Hydronic Systems Design **3 cr**

This course consists of the design and selection of modern hydronic heating systems. These procedures are necessary to fulfill the total design requirements of modern residential and light commercial buildings. This course (specifically designed for HVAC students) studies the various means by which different hydronic components are connected to the hydronic systems, which translated into energy efficient operating systems of interconnected hardware. Systems analyzed include various heat sources, piping and fittings, circulating pumps, heat emitters, radiant panel heating, distribution piping, expansion tanks, air removal, and auxiliary loads. The student will perform sizing, layout, and design of complete hydronic heating systems.
Prerequisite(s): 606-165 CAD - HVAC

606-118 Mechanisms **3 cr**

The student will study and analyze the movement of mechanical systems using a combination of calculations and 2D and 3D simulation. Topics include vectors, displacement, velocity, and acceleration calculations, and developing skeleton representations of mechanisms.
Prerequisite(s): (804-116 College Technical Math 2 or 804-152 Technical Math 120) and (806-154 General Physics 1 or 806-180 Technical Science IA or 806-151)

606-127 Machine Design **4 cr**

Fundamental principles required for the correct design of shafts, gears, belt drives, sprockets, bearings, and other machine elements. Calculations will be relied upon to determine the size and proper material for machine components.
Prerequisite(s): 606-140 Strength of Materials

606-130 Solid Modeling I **3 cr**

This course introduces the student to the concepts and commands required to develop 3-D solid models using SolidWorks software. Students will learn to constrain models and develop parametric models. Students will also produce 2-D working drawings from the models. Topics will also include dimensioning, orthographic views, and section views.

606-131 Solid Modeling 2 **3 cr**

The student will develop complex parametric models, assemblies, and working drawings, apply drawing standards, materials, and tabulated dimensions. Part families, sheet metal parts, welded assemblies, exploded assemblies, software generated bills of material, and simple animation will also be covered.
Prerequisite(s): 606-130 Solid Modeling I

606-132 Statics **2 cr**

The study of forces and loads applied to structures and mechanical devices that are in equilibrium. Topics include resultant forces, moments, truss analysis, and friction. Calculations, hands-on demonstrations, and software will be used extensively for the analysis of these forces.
Prerequisite(s): (804-115 College Technical Math 1 or 804-151 Technical Math 110) or (804-114 College Technical Math 1B or 804-142 Applied Geometry & Trigonomtry) and (806-154 General Physics 1 or 806-180 Technical Science IA or 806-151)

606-135 SolidWorks for Welders **3 cr**

This course is intended for Welding Fabrication program students. Topics include basic solid modeling processes, geometry sketching, features, working drawing for production, general dimensioning with weld symbols, and assemblies for construction of solid models. Student will trouble shoot, edit, modify solid models and geometry. Students will have the opportunity to become a Certified SolidWorks Associate.
Restricted to students admitted to the following program(s): Welding Fabrication

606-140 Strength of Materials **2 cr**

Students will study and analyze the internal forces, stresses, and strains that are generated in machine parts by various loading conditions. Topics include tensile, compressive and shear stresses, bending, torsion, and column analysis. Calculations and hands-on demonstrations will be used.
Prerequisite(s): 606-132 Statics

606-151 Capstone Design Project **2 cr**

This course integrates technical knowledge, CAD, and documented communication skills acquired from the two-year mechanical design program. Actual design projects are documented to include a statement of the problem, product design requirements, analysis sketches with load conditions, a selection of materials, stress analysis and motion requirements, completed CAD details and assembly drawings, 3-D models or prototypes of graphic simulations. Research written and Internet design information, summaries, vendor reports, and computer generated designs for a compiled technical portfolio. Prerequisite: 4th semester status.
Prerequisite(s): 606-118 Mechanisms and 606-133 Design Documentation, Adv and 606-140 Strength of Materials and 606-127 Machine Design

606-152 PLC & Fluid Power Application **2 cr**

This course will provide the basics of programmable logic controllers and fluid power systems related to mechanical design. Basic system components, symbols and schematics related to these areas will be analyzed. Students will participate in hands on activities related to these concepts in lab setting.
Restricted to students admitted to the following program(s): Mechanical Design Technology

606-160 Mfg. Materials Processes **3 cr**

Manufacturing materials includes the study of metals, plastics, elastomers, woods, ceramics, glass, composites, cement, and concrete properties. Manufacturing processes include mechanical tool cutting, machining, electrochemical milling, photochemical etching, laser machining, casting, fabricating, joining, heat treating, and secondary finishing operations. Automation applications such as robotics, and computer integrated technologies are also included with local case studies of industry. Applications and fundamental inspection techniques associated with the various materials are explored.
Restricted to students admitted to the following program(s): CAD Operator, Design and Drafting Technology, Manufacturing Eng Technologist, Mechanical Design Technology

606-161 CAD, Basic **3 cr**

Basic computer-aided drafting and design (CAD) uses two-dimensional AutoCAD software and commands to create entities, edit, store, and print CAD drawings. Topics include entity creation of arcs, circles, lines, coordinates, editing functions, scaling, making templates, text detailing, layers and line types, viewpoints, model space layout and paper space practices, dimensioning styles, calculation strategies, blocks, groups, libraries, attributes, bills of materials, and plotting to scale. A final project permits the student to apply technical skills to a detailed mechanical design drawing. All assignments are documented within an AutoCAD portfolio.

606-165 CAD - HVAC **3 cr**

This course is designed to teach the basic elements of computer-aided drafting using AutoCAD software. The student learns how the system operates, basic entity control, editing functions, dimensioning, plotting, and template setups. The drafting commands are practiced by creating specific HVAC field related drawings. Self-paced using a tutorial style textbook. Individual study supported by short lectures and monitoring by instructors. Grade level determined by quality and quantity of drawing assignments that are completed.
Prerequisite: 854-771 Basic Algebra, high school algebra or equivalent.
Prerequisite(s): 607-114 Plan and Print Reading-HVAC

606-185 Blueprint Reading **1 cr**

This course is designed with an emphasis on electromechanical technology related to automation, design, and manufacturing technology. Topics include orthographic projection and sketching, pictorial drawings, standard line types, title blocks, dimensioning, tolerancing, surface texture, threads, gearing design, section views, materials of the trade, computer-aided drafting (CAD), and computer automation used in manufacturing.

612 Fluid Power Technology

612-101 Related Fluid Power **2 cr**

Overview of basic components, applications, and circuitry involved in hydraulics and pneumatics. Lecture and lab experiences involving pumps, valves, cylinders, fluids, and conditioners; basic theory and circuitry.

614 Architectural Technology

614-100 Draft Fund/Wood Frame Construc **3 cr**

This course is designed to introduce basic drafting standards. The first part of the course is devoted to developing acceptable drafting techniques and line standards along with the study of two-dimensional and three-dimensional concepts. Emphasis is placed on developing visual and sketching techniques. Attention is then directed to the application of these drafting standards to trade-related problems. In this section of the course, the student will design and draw a complete set of working drawings for a residential building according to industry standards. A study of the various drafting standards will be incorporated as the subject matter dictates. The general emphasis in this course will be to merge "theory and trade practice."
Restricted to students admitted to the following program(s): Arch Structural Design

614-111 Architectural Drafting 1 **3 cr**

This course provides instruction in commercial architectural drafting. Emphasis is placed on drafting techniques; lettering; and drafting of details, plans, elevations, and sections. The student develops a set of architectural plans for a small commercial building. Studies of building code requirements, utility applications, and selection of construction materials are made in development of the plans.
Prerequisite(s): (614-100 Draft Fund/Wood Frame Construc or 607-100 Draft Fund/Wood Frame Construc) and (614-140 Structural Analysis or 607-140 Structural Analysis) and (614-125 Mechanical Systems or 607-125 Mechanical Systems) and (614-164 CAD Architecture or 607-164 CAD Civil or 606-161 CAD, Basic)
Corequisite(s): 614-117 Revit Architecture

614-113 Architectural Drafting 2 **3 cr**

The classroom simulates a natural architectural drafting room. A design is developed by the student and then the student prepares presentation drawings. After the presentation drawing phase, the student will develop these ideas into working drawings. These drawings will include floor plans, schedules, wall sections, and details. The student will also learn the fundamentals of drawing additions and remodeling and specification writing.
Prerequisite(s): (614-111 Architectural Drafting 1 or 607-111 Architectural Drafting I) and (614-117 Revit Architecture or 607-117 Revit Architecture) and (614-123 Construction Steel or 607-123 Construction Steel) and (614-124 Construction Concrete or 607-124 Construction Concrete) and (614-140 Structural Analysis or 607-140 Structural Analysis)
Corequisite(s): 614-155 Surveying & Site Planning

614-117 Revit Architecture **3 cr**

In this course the student will learn the basics of the Revit Architecture software. The student will use Revit to develop a building model and create floor plans, sections, elevations, structural framing system and details from the building model. The student will also explore enhancements which are added to AutoCAD through the use of AutoCAD Architecture software. The student will develop problem-solving strategies, increase their efficiency, and cope with change in his/her software environment. The student will use these programs for creating construction documents.
Prerequisite(s): (614-100 Draft Fund/Wood Frame Construc or 607-100 Draft Fund/Wood Frame Construc) and (614-164 CAD Architecture or 607-164 CAD Civil or 606-161 CAD, Basic)
Corequisite(s): 614-111 Architectural Drafting 1

614-123 Construction Steel **3 cr**

This course covers the selection and design of structural steel materials that might be used in the construction of a commercial or industrial building. Special emphasis is placed upon using the AISC Manual of Steel Construction and the Steel Joist Institute's Standard Specifications Load Tables and Weight Tables for Steel Joists and Joist Girders in learning to design and select steel beams, columns, joists, base plates, bearing plates, and lintels used in commercial and industrial roof and floor systems. The student will also learn the proper methods used to create the structural design drawings and details.
Prerequisite(s): (614-100 Draft Fund/Wood Frame Construc or 607-100 Draft Fund/Wood Frame Construc) and (614-140 Structural Analysis or 607-140 Structural Analysis) and (614-125 Mechanical Systems or 607-125 Mechanical Systems) and (614-164 CAD Architecture or 607-164 CAD Civil or 606-161 CAD, Basic) and (614-117 Revit Architecture or 607-117 Revit Architecture)

614-124 Construction Concrete **2 cr**

This course familiarizes the student with concrete construction. The student will become familiar with the concrete types and additives. The student will calculate footing sizes and draws typical details of concrete footings, foundation walls, floor and roof systems, precast systems and concrete stairways. The student will also learn the fundamentals of testing concrete cylinders.
Prerequisite(s): (614-100 Draft Fund/Wood Frame Construc or 607-100 Draft Fund/Wood Frame Construc) and (614-164 CAD Architecture or 607-164 CAD Civil or 606-161 CAD, Basic)

614-125 Mechanical Systems **3 cr**

This course consists of the selection and installation of mechanical equipment necessary to fulfill the total design requirements of modern civil-structural technology. This course will study the various means by which these requirements are translated into operating systems of interconnected hardware. Systems analyzed will include various commercial plumbing systems (sanitary drainage, storm drainage, and fire protection systems) and HVAC (heating, ventilating, and air conditioning) systems. Prior to studying these systems, basic introductory information on such topics as the structural-mechanical relationship, physical considerations for mechanical systems, plumbing codes, plumbing specifications, plumbing fixtures, plumbing materials, and pipe drafting symbols will be studied. Students will produce mechanical systems plans, sometimes with accompanying schematic drawings, during each unit of instruction. These mechanical systems plans will relate to a small commercial office building.
Prerequisite(s): (614-100 Draft Fund/Wood Frame Construc or 607-100 Draft Fund/Wood Frame Construc) and (614-164 CAD Architecture or 607-164 CAD Civil)
Restricted to students admitted to the following program(s): Arch Structural Design

614-140 Structural Analysis **4 cr**

This course introduces the first semester students to the basic principles of structural mechanics and design, with special emphasis placed upon application of these principles in the design and construction of commercial buildings. Detailed solutions to a number of problems in basic structural engineering are presented. Mastery of the material presented in this course is critical to the successful completion of subsequent design courses in the program.

Restricted to students admitted to the following program(s): Arch Structural Design

614-148 Structural Drafting 1 **4 cr**

In this course, the student gains a basic understanding of structural steel sections, terms, abbreviations, and symbols used by structural steel fabricators and by structural steel erectors. The student makes steel erection plans, anchor rod plans, and detailed shop fabrication drawings of structural steel beams and columns. Special emphasis is placed on the design of bolted and welded structural steel connections. The student becomes familiar with Detailing for Steel Construction and the Manual of Steel Construction, which are both published by the American Institute of Steel Construction. The student then learns how to solve typical design problems related to steel framing and steel construction using these design manuals.

Prerequisite(s): (614-111 Architectural Drafting 1 or 607-111 Architectural Drafting I) and (614-123 Construction Steel or 607-123 Construction Steel) and (614-124 Construction Concrete or 607-124 Construction Concrete) and 804-116 College Technical Math 2

614-149 Structural Drafting 2 **2 cr**

This course is a continuation of Structural Drafting I. In the first part of this course, the student learns how to detail structural support frames and bracing using structural steel. In the second part of this course, the student learns more about structural steel, weld types, and weld symbols. The student then learns how to detail miscellaneous structural steel by detailing the remaining items from his or her Structural Drafting I project, which makes that project complete to industry standards. In the last part of this course, the student learns how to detail skewed beams, which are very common in nonrectangular framing.

Prerequisite(s): (614-148 Structural Drafting 1 or 607-148 Structural Drafting I)

614-151 Tech Problems-Arch Structural **3 cr**

In this course the student continues to design a commercial building project which is started in Architectural Drafting II. This course utilizes the knowledge gained in previous courses. He/she prepares a complete set of working drawings necessary to construct a commercial or industrial building, including the architectural plans and details and structural plans and details using the Revit Architecture software. This project also includes all required structural design calculations. The structural design calculations are typical of those that arise daily in actual design office practice.
Prerequisite(s): (614-113 Architectural Drafting 2 or 607-113 Architectural Drafting II) and (614-148 Structural Drafting 1 or 607-148 Structural Drafting I) and (614-152 Construction Methods or 607-152 Construction Methods) and (614-155 Surveying & Site Planning or 607-155 Surveying & Site Planning)

614-152 Construction Methods **2 cr**

This course coordinates information and understanding developed in Construction Concrete and Structural Analysis and expands previous learning into a systematic study of applied design procedures for commercial construction projects using reinforced concrete for their structural support. The content of this course and the presentation of the material are geared toward the development of an orderly and systematic procedure for solving applied reinforced concrete design problems and the ability to use good judgment and practical considerations in the choice, design, and erection of reinforced concrete structures. The student will also learn the fundamentals of detailing rebar. Upon completion of this course, the student should be capable of performing basic calculations for the component parts of a variety of structural concrete framing systems and develop basic plans, details, and calculate quantities for detailing rebar.
Prerequisite(s): (614-140 Structural Analysis or 607-140 Structural Analysis) and (614-111 Architectural Drafting 1 or 607-111 Architectural Drafting I) and (614-124 Construction Concrete or 607-124 Construction Concrete)

614-155 Surveying & Site Planning **4 cr**

An elementary course in surveying, including the fundamentals of plane surveying and care of equipment. The course includes theory and field problems in distance measuring, leveling, measuring, vertical and horizontal angles, topographical surveying, construction location surveying, and water detention. The last unit of study is devoted to land descriptions.
Prerequisite(s): (614-111 Architectural Drafting 1 or 607-111 Architectural Drafting I) and 804-116 College Technical Math 2
Corequisite(s): 614-113 Architectural Drafting 2

614-160 Model Based Steel Detailing **3 cr**

In this course the student learns how to use SDS/2 steel detailing software, one of the more advanced 3D-drafting systems used by structural steel detailers in the industry today. The fourth-semester student first uses the SDS/2 Drawing Editor to complete a variety of detailed shop drawings of structural steel beams. The student then goes through basic training on SDS/2 3D Modeling, and once this training is complete, he/she uses the SDS/2 software to produce structural steel detail and erection drawings for all the structural steel items in his or her Technical Problems project.
Prerequisite(s): (614-140 Structural Analysis or 607-140 Structural Analysis) and (614-148 Structural Drafting 1 or 607-148 Structural Drafting I)

614-164 CAD Architecture **3 cr**

This course is designed to teach individuals interested in learning the fundamentals of computer-aided drafting using AutoCAD software. The student learns how the system operates, basic entity creation, modifying operations, text styles, dimensioning, blocks, plotting, etc. At the conclusion of this course, the student should have developed basic skills related to computer-aided drafting and should be able to use CAD on advanced projects in the future classes.
Restricted to students admitted to the following program(s): Arch Structural Design

620 Electromechanical Technology

620-101 Automated Processes **2 cr**

Electromechanical systems and processes used in modern manufacturing facilities. An overview of the manufacturing environment and the role of the electromechanical technician in that environment.

620-107 Industrial Electronic Basics I **1 cr**

Concepts of basic industrial control electronics. Fundamentals of ladder logic and control wiring. Reading and interpreting ladder logic, wiring diagrams used in industry. Using AutoCAD by Auto Desk to create ladder logic for applications. The importance of using wire numbers and wire color codes in accordance with NFPA 79 (National Fire Protection Association) standards. The standard for electrical safety in the workplace proper PPE according to category, Lock Out - Tag Out use. An over view of test instruments and tools, and their correct use. Gain knowledge of component identification and symbol representation for transformers, fused disconnects switches, control relays, contactors, on-delay and off-delay timing relays, pilot lights, push buttons, selector switches, and limit switches. The creation of ladder logic for basic control circuits using AutoCAD, the wiring and use of the components listed above in control circuits.

620-108 Industrial Electr Basics II **1 cr**

The use of and correct application of lockout - tag out and PPE. The use of control circuits to control pneumatic operation. The use of 480 volts 3 phase power, installing and wiring of control circuits in enclosures. The continuation of ladder logic and increased complexity of circuit construction and operation. The introduction of latching relays, ice cube relays, solenoids, sequencers, pressure switches, and timers.
Prerequisite(s): 620-107 Industrial Electronic Basics I

620-135 PLC Introduction **2 cr**

Principles of programmable logic controllers (PLCs) including programming the PLCs, creating basic ladder logic circuits containing basic logic functions, timers, counters, and sequencers. Emphasis is on basic PLC functions to assist one in servicing and troubleshooting PLC controlled equipment. The Allen Bradley PLC 5/03 and Micrologix family of PLCs are used. May get instructor approval instead of taking prerequisite(s).
Prerequisite(s): 620-155 Industrial Electronics I or 620-108 Industrial Electr Basics II

620-136 PLC Applications **3 cr**

Design and add documentation to ladder logic programs to solve application problems. PLC applications examples as used in industry will be programmed on real industry equipment utilizing a wide variety of various sensors, photoelectric, proximity, motor drives, and control devices creating working automated systems.
Prerequisite(s): 620-135 PLC Introduction

620-144 Applied EM Machine Principles **2 cr**

Basics of power transmission equipment operation, maintenance, and repair as applied to industrial machines, robots, and manufacturing line systems.

620-145 Industrial Robotics Systems **2 cr**

Terminology, concepts, and components of robots, robot-type machines, and automation. Emphasis will be on interfacing automated machinery.
Prerequisite(s): 620-156 Industrial Electronics II

620-146 Machine Troubleshooting Tech **2 cr**

This course is a hands-on troubleshooting class which will expose the student to problems that they could encounter as an Automation Technician. PLCs, CNC, robotic, and automated control systems will be some of the possible areas and components they will be required to troubleshoot. Besides troubleshooting failures in electrical, pneumatic, and programming logic, the student may be required to modify, move or reprogram equipment. This course will be a culmination of the knowledge that the students have gained from the multitude of courses they have taken in the electromechanical program.
Prerequisite(s): 612-101 Related Fluid Power and 620-136 PLC Applications and 620-144 Applied EM Machine Principles and 620-145 Industrial Robotics Systems

620-147 Control Applications **2 cr**

This course is a hands-on control application class which will expose the student to problems that they could encounter as an Automation Technician. PLCs, CNC, robotic, and automated and motion control systems will be some of the possible areas and components they will be required to create control circuits and programs for. Besides creating and modifying existing control circuits the student will also be given new projects that will require fabrication and design of machinery. This course will be a culmination of the knowledge that the students have gained from the multitude of courses they have taken in the electromechanical program.
Prerequisite(s): 612-101 Related Fluid Power and 620-136 PLC Applications and 620-144 Applied EM Machine Principles and 620-145 Industrial Robotics Systems

620-148 Automated Systems Interfacing **4 cr**

Hands-on interfacing of PLC's, operator interfaces, sensors, and various automated equipment to create a work cell level of automation. Gain experience in programming, wiring, and configuration. Learn the troubleshooting and programming of a more complex process.
Prerequisite(s): 620-136 PLC Applications

620-150 Instrumentation **2 cr**

The student will learn how to measure the properties of temperature, pressure, flow, and level. Tuning PID loops and troubleshooting instrumentation systems. Transducers and control systems will be taught from a systems approach. Full-size industrial standard components and systems are used.
Prerequisite(s): 620-156 Industrial Electronics II and 620-158 Sensors

620-155 Industrial Electronics I **2 cr**

Concepts of basic industrial control electronics. Fundamentals of ladder logic and control wiring. Reading and interpreting ladder logic, wiring diagrams, and one-line diagrams used in industry. Using Actrix Technical by Auto Desk to create ladder logic for applications. The importance of using wire numbers and wire color codes in accordance with NFPA 79 (National Fire Protection Association) standards. The students will work with and gain knowledge of the following components: transformers, power supplies, fuses, disconnect switches, circuit breakers, relays, solenoids, pressure switches, limit switches, timers, latching relays, push buttons, and selector switches.

620-156 Industrial Electronics II **2 cr**

In-depth concepts of industrial control and power circuits. Counters, temperature controllers, forward and reversing motor starters, contactors and frequency drives. 3-phase AC motors, single-phase, split-phase AC motors, and DC motors. Mounting and wiring of PLCs, designing control systems for easy maintenance, industrial data communication, and quality control. Design, wire, and document control and power circuits to solve application problems.
Prerequisite(s): (605-107 Basic Electronics or 605-111 Basic Elec: Reactive Compnts) and (620-155 Industrial Electronics I or 620-108 Industrial Electr Basics II) and 620-193 Electronic Software Applic

620-158 Sensors **2 cr**

This course investigates theory, application, and troubleshooting of various sensor technologies including wiring and testing of sensor configurations. This course covers non-contact sensing fundamentals and interfacing.
Prerequisite(s): (605-108 Devices and Digital or 605-120 Devices and 605-130 Digital Electronics) and 620-156 Industrial Electronics II

620-191 Motion Control Applications **3 cr**

This course is designed to give the student an understanding of the operation, programming, and wiring of AC induction motors and Drives, DC motors and Drives, Stepper motors and drives, and Servo motors and drives.
Prerequisite(s): (605-108 Devices and Digital or 605-120 Devices and 605-130 Digital Electronics) and 620-156 Industrial Electronics II

620-193 Electronic Software Applic **2 cr**

This course consists of an introduction to computer software applications used in all of the Electronics Technologies Center Programs. Topics include an introduction to the following software: Microsoft Windows, Internet, Using email, Word 2013, Excel 2013, and Visio 2013. This list may change to meet the changing demands of the course and the availability of software.

623 Industrial Manufacturing Tech

623-101 Engineering Principles **1 cr**

Engineers must consider material properties and process capabilities to design and make products. This introductory course will explore the principles of engineering with an emphasis on the fields of nanoscience and manufacturing. Students will encounter the challenges of engineering by designing and building projects that involve problem solving, teamwork, professionalism, and ethics.

623-107 Engineering Materials **3 cr**

This course explores materials used for modern manufacturing. Atomic structure and bonding, crystal lattice structure, defects, diffusion, and their relation to physical properties, including strength, toughness, resilience, and hardness are explored. Stress, induced strain, and failure of different materials will be compared. Phases of solid solutions will be investigated to understand how properties change with composition.
Restricted to students admitted to the following program(s): CAD Operator, Industrial Engineering Tech, Manufacturing Eng Technologist, Nano Engineering Technology

623-111 Measurement for Engineering **2 cr**

This course will provide the theory, technique, and care of the coordinate measuring machine (CMM) and various measuring instruments. The student will apply blueprint reading skills and geometric tolerancing to projects while applying measuring techniques used with the CMM and basic measuring instruments. The student will be exposed to precision inspection methods as it relates to industrial blueprints, manufactured parts, and the student's projects.

623-114 Industry Practicum **3 cr**

The student will conduct 216 hours in an onsite work environment in the food processing, electronics fabrication or other micro/nano technology related work environment. For students unable to coordinate an internship, a practicum opportunity may be available for coordination.
Restricted to students admitted to the following program(s): Industrial Engineering Tech, Manufacturing Eng Technologist

623-130 Lean Fundamentals **2 cr**

This class provides an introductory study of the Lean Manufacturing philosophy to reduce or eliminate waste in a manufacturing setting. The students will become familiar with the fundamental 5-step process sequence of Lean: 1) Specify value from the customer perspective, 2) Identify the value stream steps for product families and eliminate waste, 3) Improve product flow to increase value creating steps, 4) Improve value connections with upstream customers, and 5) Stabilize processes and continue improvement for waste reduction. Lean terminology and tools used such as 5S will be examined along with the benefits and pitfalls encountered in implementation.

623-132 Manufacturing Workplace Safety **2 cr**

Students will identify, analyze, and recommend improvements to work areas to minimize the opportunity for workplace injuries to provide for a safe and secure manufacturing work environment. Learners will demonstrate knowledge of workplace safety standards (federal, state, and workplace compliance) and ergonomics, as well as the processes of incident reporting, investigation and documentation.

623-154 Engineering Economy **3 cr**

Application of interest formulas in financial decision-making; source and application of funds in capital budgeting and replacement decision making; effect of income tax laws on decision alternatives.
Prerequisite(s): 804-116 College Technical Math 2

625 Quality Interdisciplinary

625-110 Mfg & Quality Assurance **3 cr**

Develops an overview knowledge of quality assurance to provide instruction in methods for measuring quality within manufacturing processes. Students learn the components of a quality assurance program such as quality goals, benchmarks, leadership, and motivation. This course addresses the philosophies of leaders in the field, industry trends, quality standards (ISO and Six Sigma) and how quality assurance relates to specialties in manufacturing, food, biotechnology, micro/nano electronics, service, and pharmaceuticals.
Prerequisite(s): 804-189 Introductory Statistics

625-160 Core Manufacturing Skills **2 cr**

Today's manufacturing workplace requires employees at all levels to take initiative to solve problems, work cooperatively in teams, and adapt to an ever-changing environment. The Critical Core Manufacturing Skills training targets these areas and more, to empower you to meet current and future production and customer demands. Topics such as productivity skills, problem solving skills, team skills and adaptability skills will be covered.
Restricted to students admitted to the following program(s): Automation Eng Technology, Electrical System Maintenance, Electromechanical Technology, Fluid Power Maintenance, Industrial Mechanic, Industrial Mechanical Tech, Mechanical Maintenance, Nano Engineering Technology, Pumping Systems Maintenance, Welding Fabrication

625-170 Quality Practices & Measuremnt **2 cr**

Practice quality control through policies and procedures used in business and industries. Utilize learn manufacturing principles such as ISO and Six Sigma methodologies to record and track quality through precise measurement tactics.
Restricted to students admitted to the following program(s): Welding Fabrication

625-180 Manufacturing Skills Standards **2 cr**

In the MSSC Safety course students will be exposed to manufacturing concepts and actions that can produce higher quality products, increase productivity, achieve greater customer satisfaction, and assure a safe and healthy work environment. This course is broken down with definitions, examples, and exercises. Practical cases/examples are investigated and discussed. Capitalizing on a blended learning approach, students experience lectures, self-pace studies, on-line labs, and individual and group activities.

699 Technical Communications

699-105 Document Design **3 cr**

This course is an introduction to graphic design principles and process. It focuses on skills needed to design and layout communications. Visual language using print, iconic, and kinetic forms will be introduced.
Prerequisite(s): 801-136 English Composition 1 or 801-195 Written Communication or 801-219 English Composition 1

699-107 Professional/Technical Writing **3 cr**

This course provides an introduction to processes of technical and professional communication, emphasizing application of principles and problem-solving strategies to an array of assignments central to the work of career writers in the workplace.
Prerequisite(s): 801-136 English Composition 1 or 801-195 Written Communication or 801-219 English Composition 1

699-115 Editing and Proofreading **3 cr**

This course gives students skills and practice needed to edit communication for usage, capitalization, grammar, punctuation, and spelling. Students will apply theories and strategies to ensure communication products conform to industry style guides, to develop editor-writer relationships, and to provide audiences with clear ethical content.
Prerequisite(s): 801-136 English Composition 1 or 801-195 Written Communication or 801-219 English Composition 1

699-117 Research Basics **3 cr**

This course introduces students to basic research skills needed to conduct professional research. Students will collect, interpret, and report data while maintaining ethical standards.
Prerequisite(s): 801-136 English Composition 1 or 801-195 Written Communication or 801-219 English Composition 1

699-125 Proposal/Grant Writing **3 cr**

This course is an exploration of various grant proposal forms (government, corporate, foundation), with emphasis on conceptualizing, developing, and writing proposals for real clients.
Prerequisite(s): 801-136 English Composition 1 or 801-195 Written Communication or 801-219 English Composition 1

699-127 Digital Media Communications **3 cr**

This course will introduce how to write blogs, posts, tweets, and other updates so they resonate and are relevant to social media audiences, and encourage action, engagement, and interaction. This course focuses primarily on content writing and editing.
Prerequisite(s): 801-136 English Composition 1 or 801-195 Written Communication or 801-219 English Composition 1

699-131 Information Design **3 cr**

This course prepares students to design and manage information, emphasizing data visualization, accessibility, graphic organization, and instructional design strategies.
Prerequisite(s): 801-136 English Composition 1 or 801-195 Written Communication or 801-219 English Composition 1

699-133 Writing Content for the Web **3 cr**

This course focuses on technical writing strategies and methods of designing and writing for websites that support the workplace, including Search Engine Optimization tactics.
Prerequisite(s): 801-136 English Composition 1 or 801-195 Written Communication or 801-219 English Composition 1

699-135 Writing and Publishing **3 cr**

The course covers techniques used in informative and persuasive writing for internal and external communication. Students will use these techniques to create the kinds of messages most widely required in the workplace.
Prerequisite(s): 801-136 English Composition 1 or 801-195 Written Communication or 801-219 English Composition 1

699-137 Technical Documentation **3 cr**

This course explores developer documentation as well as end user documentation. Concepts will include documenting standardization, increasing agility of documents, anticipating customer needs, choosing communication modes, analyzing documentation style, and utilizing audience analysis.
Prerequisite(s): 801-136 English Composition 1 or 801-195 Written Communication or 801-219 English Composition 1

699-138 Professional Comm Capstone **2 cr**

To prepare for the professional communications internship, students produce all documentation related to the job-seeking process and participate in activities with communications professionals to polish students' job-seeking skills. Students discuss techniques for getting and keeping a job and other career-enhancing strategies. Take during the final semester.
Prerequisite(s): 699-105 Document Design and 699-107 Professional/Technical Writing and 699-115 Editing and Proofreading and 699-117 Research Basics and 699-125 Proposal/Grant Writing and 699-127 Digital Media Communications and 699-133 Writing Content for the Web and 699-135 Writing and Publishing and 699-131 Information Design and 699-137 Technical Documentation and 699-139 Professional Comm Internship
Restricted to students admitted to the following program(s): Professional Communications

699-139 Professional Comm Internship **1 cr**

This course allows students an opportunity to work in a professional environment. Students will maintain a log of work activities and complete communication-related projects under the direct supervision of the employer. Students will be evaluated by the workplace supervisor and the practicum instructor after completing a self-assessment of the internship.
Prerequisite(s): (699-105 Document Design and 699-107 Professional/Technical Writing and 699-115 Editing and Proofreading and 699-117 Research Basics and 699-125 Proposal/Grant Writing and 699-127 Digital Media Communications and 699-133 Writing Content for the Web) and (699-138 Professional Comm Capstone and 699-135 Writing and Publishing and 699-131 Information Design and 699-137 Technical Documentation)
Restricted to students admitted to the following program(s): Professional Communications

801 Communication Skills

801-136 English Composition 1 **3 cr**

This course is 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.
Restricted to students admitted to the following program(s): Liberal Arts-Assoc of Science

801-141 Intro to Mass Comm **3 cr**

Explores communication in media and media literacy by providing insight into the important issues that confront students as consumers and purveyors of mass media within the workforce and in society. The mass media revolution, including media technologies, the evolution of media content and platforms, including new media, the impact of media communications on business and society as a whole, media bias, and media law and ethics form the basis of the course.

801-171 Business English **3 cr**

Develops proficiency in applying the various principles of English to language structure, usage, and style as used in employment situations.
Prerequisite(s): (min score of 60 on COMW or min score of 18 on ACTE) or (831-103 Intro to College Writing or 801-120 Beginning Composition or 808-114 Integrated Reading and Writing) or (min score of Y on BA or min score of Y on BS or min score of Y on AD or min score of Y on PCOM)

801-196 Oral/Interpersonal Comm **3 cr**

Focuses upon developing speaking, verbal and nonverbal communication, and listening skills through individual presentations, group activities, and other projects.

801-197 Technical Reporting **3 cr**

Prepares and presents oral and written technical reports. Types of reports may include lab and field reports, proposals, technical letters and memos, technical research reports, and case studies. Designed as an advanced communication course for students who have completed at least the prerequisite introductory writing course with a grade of "D-".
Prerequisite(s): (801-195 Written Communication or 801-151 or 801-136 English Composition 1 or 801-219 English Composition 1)

801-198 Speech **3 cr**

Explores the fundamentals of effective oral presentation to small and large groups. Topic selection, audience analysis, methods of organization, research, structuring evidence and support, delivery techniques, and other essential elements of speaking successfully, including the listening process, form the basis of the course.
Restricted to students admitted to the following program(s): Liberal Arts-Assoc of Science

801-204 Introduction to Literature **3 cr**

Introduction to Literature increases the understanding and appreciation of literary genres through analyzing and writing about non-fiction, fiction, drama, and poetry. Students conduct research using library resources and learn to document in MLA-style format. Students develop an appreciation for the stylistic, constructive, and linguistic conventions of baccalaureate writing and communication.

801-219 English Composition 1 **3 cr**

Develops critical thinking, reading, writing, listening, and speaking for both exposition and argumentation. Emphasizes clarity, concision, concreteness, synthesis of information, and completeness of expression, supported by reasoning, organization, and language conventions for research, presentations, and other discourse.
Prerequisite(s): min score of 16 on ACCR or min score of 16 on ACTE or min score of 6 on ACTW or min score of 4 on ACCW or min score of 72 on ACCS or min score of 60 on COMW or min score of 2.6 on GPAH or min score of 40 on TWEG or (min score of 250 on ANGW and min score of 250 on ANGR) or 808-114 Integrated Reading and Writing

801-223 English Composition 2 **3 cr**

Advances composition skills, emphasizing well-reasoned argumentative research papers. Focuses on critical thinking, college-level discourse, as well as the following modes of literacy: writing, speaking, reading, and listening. Increases understanding and appreciation of the genres through analyzing and writing about fiction, drama, and poetry. Students conduct research using primary and secondary library resources, surveys and questionnaires, observations and interviews, documented in the MLA, APA, or Chicago-style formats. Students develop an appreciation for the stylistic, constructive and linguistic conventions of baccalaureate writing and communication as they apply to their own academic disciplines.
Prerequisite(s): (801-136 English Composition 1 or 801-195 Written Communication or 801-219 English Composition 1)

801-239 American Literature Since 1865 **3 cr**

Examines major authors and works from the late 19th century to the present in American prose, drama, and poetry.

801-240 Intro to Creative Writing **3 cr**

This class is designed to introduce students to appreciation, analysis, creation, and publication of contemporary literary fiction and poetry. Through reading, writing, editing and in-class activities, students will learn the history, trends, and processes of creating innovative, well-written, publishable literary pieces.

801-243 American Literature to 1865 **3 cr**

Examines writings of the Colonial through the Civil War periods, including Native American traditions.

801-351 Applied Communication **2 cr**

Develops skills in the four areas of communication--reading, writing, speaking, and listening--emphasizing practical application of the skills for the workplace environment.

801-355 Applied Written/Intrprsnl Comm **1 cr**

This course emphasizes interpersonal and writing skills for the workplace environment. Students will gain practical interpersonal workplace skills in listening, speaking, nonverbal, conflict resolution and customer service, and training presentations. They will also acquire practical, business-related skills through reading, writing, revising, and grammar exercises.

801-356 Applied Job/Interpersonal Comm **1 cr**

This course emphasizes the importance of having effective interpersonal communication in the workplace environment and the practical components of job-seeking skills. Students will gain practical workplace skills in listening, speaking, nonverbal, conflict resolution and

customer service, and training presentations. Additionally, they will polish a resume, practice their interview skills, explore a company's background, assess and refine their personal career goals, and establish a purpose for writing in their career field.

801-357 Applied Written/Job Seek Comm **1 cr**

This course emphasizes the importance of effective workplace writing and the practical components of job-seeking skills. Students will acquire practical, business-related skills through reading, writing, revising, and grammar exercises. Additionally, they will polish a resume, practice their interview skills, explore a company's background, assess and refine their personal career goals, and establish a purpose for writing in their career field.

802 Foreign Language

802-102 Spanish for the Green Industry **2 cr**

Introduces basic conversation skills in Spanish to those working in the Green Industry. Emphasizes the use of vocabulary and expressions needed for communication in horticulture, landscaping, nursery/greenhouse and turf management. Addresses cultural aspects of working with Spanish speaking populations.

802-103 Spanish for the Workplace **2 cr**

Introductory conversational Spanish for the person whose business works with Spanish-speaking employees and/or customers. Emphasis is on everyday language usage and interaction rather than a formal grammar approach.

802-211 Spanish 1 **4 cr**

This course provides an introduction to the Spanish language through the basic development of the four core language components: listening, speaking, reading and writing. It provides students with the basic conversational and communicative strategies necessary to carry out simple yet meaningful tasks common in everyday social interactions. Further, it exposes students to many cultural aspects of the Spanish speaking world.

802-212 Spanish 2 **4 cr**

This second semester introductory course is a continuation of Spanish 1. It focuses on development of listening, speaking, reading, and writing skills, and the further development of basic conversational and grammatical tools introduced in the first semester. It also focuses on the expansion of students' cultural awareness with regard to the Spanish-speaking world.
Prerequisite(s): 802-211 Spanish 1 or min score of 41 on TWSP

802-213 Spanish 3 **4 cr**

Spanish 3 is a review of Spanish grammar and relevant vocabulary, with an increased focus on both active (speaking and writing) and passive (listening and reading) language skills. Students also gain further exposure to the Spanish-speaking world through authentic literary and cultural pieces, and cinematic works.
Prerequisite(s): 802-212 Spanish 2 or min score of 50 on TWSP

802-218 Latin American Studies **3 cr**

This course is an introduction to Latinos in the United States. It provides a cursory look into the people, culture, language, and history of Latin Americans with specific attention given to how these relate to the modern Latino experience in the United States. It explores the complex and intertwined relationship between the United States and Latin America, and how this relationship affects contemporary Latinos in the United States.

803 History

803-211 U.S. History to 1877 **3 cr**

A survey of the history of the United States to 1877. Emphasis is placed on colonial settlement & development, the movement for independence, the establishment of government under the Constitution, westward expansion, emergence of sectionalism and the Civil War, and the period of Reconstruction.

803-212 U.S. History 1877-Present **3 cr**

A survey of the political, economic, social and cultural history of the United States from 1877 to the present. Emphasis is placed on the post reconstruction Jim Crow South, Native American relations, the Gilded Age, Industrialization, Populism and the Progressive Movement, World War I, the New Deal, World War II, the Cold War, Civil Rights, the Vietnam War, Conflict in the Middle East (Iran and Iraq), and Post 9/11 America.

803-214 Native American History **3 cr**

This course is a survey of religion, social structure, art, and intertribal relations of various indigenous peoples within the boundaries of the present-day United States. Emphasis is placed on pre-European settlement; the cultural impact and consequences of European colonization; the 17th and 18th century wars for empire; forced removal of native peoples; and the establishment of Native American reservations. The course will conclude with an examination of political, economic, and social issues Native Americans face today.

803-236 The Vietnam Era **3 cr**

This course examines the Vietnam War era with emphasis on the years following World War II through the 1970s. The course is taught from the American perspective and focuses on American involvement in Vietnam and the political, social and economic impact the war had (and continues to have) on America and the world.

804 Mathematics

804-113 College Technical Math 1A **3 cr**

Designed for the students who are preparing for a technical career, this course covers a variety of algebraic topics. These include solving linear, quadratic, and rational equations; measurement systems; 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.

804-115 College Technical Math 1 **5 cr**

This course is designed for students who are preparing for a technical career. Topics studied in the course include solving linear, quadratic, and rational equations; graphing; formula rearrangement; solving systems of equations; percent; proportions; measurement systems; computational geometry; right and oblique triangle trigonometry; trigonometric functions on the unit circle; and operations on polynomials. The course will emphasize the use of mathematics as a problem solving tool with a wide variety of technical problems.

804-116 College Technical Math 2 **4 cr**

College Technical Mathematics 2 is the second semester technical mathematics course offered to technical students in associate degree programs. The student uses the mathematical skills developed in College Technical Mathematics 1 to learn new skills in the use of number systems, Boolean algebra, radian measure and rotational motion, graphing trigonometric functions, exponential functions, logarithms, complex numbers, straight line and conic section functions, and the analysis of statistical data. The course will emphasize the use of mathematics as a problem solving tool with a wide variety of technical problems. Prerequisite(s): 804-115 College Technical Math 1 or 804-114 College Technical Math 1B

804-118 Interm Algebra w Apps **4 cr**

This course offers algebra content with applications. Topics include properties of real numbers, order of operations, algebraic solution for linear equations and inequalities, operations with polynomial and rational expressions, operations with rational exponents and radicals, algebra of inverse, logarithmic and exponential functions.

804-133 Math & Logic **3 cr**

This course is designed for students pursuing a computer related degree. It includes basic elements of sets and functional notation; a review of algebra, encompassing simple equations; linear equations; systems of equations; number bases; systems of measurement; Boolean Algebra; an introduction to probability and statistics; and an introduction to trigonometry. Prerequisite: High school algebra or 854-771, or equivalent determined by the Math Department Chair.

804-134 Mathematical Reasoning **3 cr**

All college students, regardless of their college major, need to be able to make reasonable decisions about fiscal, environmental, and health issues that require quantitative reasoning skills. An activity based approach is used to explore numerical relationships, graphs, proportional relationships, algebraic reasoning, and problem solving using linear, exponential and other mathematical models. This course may be used as the first of a two part sequence that ends with Quantitative Reasoning.

804-189 Introductory Statistics **3 cr**

Students taking this course will learn to display data with graphs, describe distributions with numbers, perform correlation and regression analyses, and design experiments. They will use probability and distributions to make predictions, estimate parameters, and test hypotheses. They will learn to draw inferences about relationships including ANOVA.

804-211 Quantitative Reasoning **4 cr**

Intended to develop analytic reasoning and the ability to solve quantitative problems. Topics may include: construction and interpretation of graphs; functional relationships and mathematical modeling; descriptive statistics; basic probability; geometry & spatial visualizations. This is a suitable final mathematics course for students who do not intend to take Calculus.
Prerequisite(s): 804-118 Interm Algebra w Apps or min score of 47 on TWMM or (min score of Y on BA or min score of Y on BS)

804-218 Algebra Success **3 cr**

This course offers traditional algebra content with applications. Learners develop algebraic problem solving techniques needed for technical problem solving and for more advanced algebraic studies. Topics include properties of real numbers, order of operations, linear equations and inequalities, operations with polynomial and rational expressions, operations with rational exponents and radicals, algebra of inverse, logarithmic and exponential functions.

804-224 College Algebra **4 cr**

Studies properties of the real and complex number systems; quadratic, polynomial, rational, exponential and logarithmic functions; equations and inequalities; the use of matrices and determinants in solving systems of equations, sequences, series, and probability.
Prerequisite(s): 804-118 Interm Algebra w Apps or min score of 47 on TWMM or (min score of Y on BA or min score of Y on BS)

804-228 Plane Trigonometry **3 cr**

Covers trigonometric functions and their inverse functions, graphing trigonometric functions, trigonometric identities, solving triangles, solving equations and inequalities, complex numbers in trigonometric form, and polar curves.
Prerequisite(s): 804-224 College Algebra or (min score of 57 on TWMA and min score of 15 on TWMT) or (min score of Y on BA or min score of Y on BS)

804-230 Statistics **4 cr**

Studies appropriate statistical techniques for the systematic collection, presentation, analysis and interpretation of data using experimental and quasi-experimental methods found in research. Studies statistical inference including techniques, confidence intervals, types I and II errors, hypothesis testing, and results interpretation. Also includes descriptive statistics, basic probability-theory, the Central Limit Theorem; the binomial, normal, Student t, chi-squared, and F distributions; and techniques of 1 and 2 sample tests, linear regression, correlation, sample sizes, an introduction to analysis of variance and selected nonparametric procedures. May require use of a graphing calculator or computer software.
Prerequisite(s): 804-118 Interm Algebra w Apps or min score of 47 on TWMM or (min score of 36 on TWMM and min score of 46 on TWMA) or (min score of Y on BA or min score of Y on BS)

804-236 Calculus & Analytic Geometry 1 **5 cr**

Introduces the basic properties of limits, rate of change of functions, continuity, derivatives of algebraic and elementary transcendental functions and its applications, the definite integral and its applications, logarithmic, exponential, inverse trigonometric and hyperbolic functions, curve sketching, finding maxima and minima.
Prerequisite(s): (min score of 57 on TWMA and min score of 55 on TWMT) or 804-228 Plane Trigonometry or (min score of Y on BA or min score of Y on BS)

804-240 Calculus & Analytic Geometry 2 **5 cr**

Includes techniques and applications of integration, numerical approximation of definite integrals, improper integrals, infinite series, and an introduction to first order differential equations, parametric equations and derivatives of parametric curves, polar coordinates in the plane and integrals using polar coordinates, an introduction to vectors in two and three dimensions, transcendental functions, indeterminate forms, Taylor's formula, topics from analytic geometry, plane curves and polar coordinates, vectors, and surfaces.
Prerequisite(s): 804-236 Calculus & Analytic Geometry 1

804-310 Office Math **2 cr**

Applications are designed to prepare students in the math skills they will need as office professionals. Topics include: percent, payroll including withholding, taxes, invoice discounting, sale price and markup, simple and compound interest.

804-360 Math for Technical Trades **2 cr**

This course will study how technicians use arithmetic and algebra as problem solving tools. Topics include arithmetic skills with integers, decimals, and fractions. Algebraic skills involving equations, word problems, percents, and technical formulas will focus on the needs of the students' professional studies.

804-360A Math for Tech Trades-Welding **2 cr**

This course will study how technicians use arithmetic and algebra as problem solving tools. Topics include arithmetic skills with integers, decimals, and fractions. Algebraic skills involving equations, word problems, percents, and technical formulas will focus on the needs of the student's professional studies.

804-360B Math for Tech Trades-Ref AC Ht **2 cr**

This course will study how technicians use arithmetic and algebra as problem solving tools. Topics include arithmetic skills with integers, decimals, and fractions. Algebraic skills involving equations, word problems, percents, and technical formulas will focus on the needs of the student's professional studies.
Restricted to students admitted to the following program(s): A/C, Htg & Refrigeration Tech

804-360C Math Tech Trades-Auto & Sm Eng **2 cr**

This course will study how technicians use arithmetic and algebra as problem solving tools. Topics include arithmetic skills with integers, decimals, and fractions. Algebraic skills involving equations, word problems, percents, and technical formulas will focus on the needs of the student's professional studies.
Restricted to students admitted to the following program(s): Auto Collision Repair, Auto Maint Tech-Evening, Auto Tech-Evening, Automotive Maint Tech, Automotive Technician, Motorcycle, Marine & O

804-360D Math for Tech Trades-Diesel **2 cr**

This course will study how technicians use arithmetic and algebra as problem solving tools. Topics include arithmetic skills with integers, decimals, and fractions. Algebraic skills involving equations, word problems, percents, and technical formulas will focus on the needs of the student's professional studies.

804-360E Math for Tech Trades-Trans **2 cr**

Math for transportation is an applied technical math course designed for students in one of the transportation programs. The course includes basic arithmetic, percents and ratios, unit conversions, linear algebra, and basic geometry with an emphasis on transportation applications.
Restricted to students admitted to the following program(s): Auto Collision Rpr & Ref Tech, Automotive Maintenance Tech., Automotive Technician, Diesel Truck Technician, Motorcycle, Marine & Outdoor P

804-361 Math 10 **2 cr**

This course will study how technicians use arithmetic and algebra as problem solving tools. Topics include arithmetic skills with integers, decimals, and fractions. Algebraic skills with equations, word problems, percents, and technical formulas will focus on solving professional problems.

804-362 Math 20 **2 cr**

This course is designed for machinists to provide them with a solid background in geometry, trigonometry, numerical control geometry, measurement conversion techniques, and more algebra. Focus will be on applying the concepts to machining situations and problems.
Prerequisite(s): 804-361 Math 10 or 804-360 Math for Technical Trades

804-363 Math for Electricty & Electrnc **2 cr**

This is an applied technical math course designed for students in the Electrical Power Distribution program. The course includes measurement conversions, including metric prefix notation, a review of linear algebra, basic geometry, right triangle trigonometry, circular trigonometry, Ohm's Law applications, series and parallel circuits, and AC circuit applications.

804-370 Math Apps for Manufacturing **3 cr**

This course will teach students how to use arithmetic, algebra, and geometry as problem solving tools. Topics include integers, fractions; decimals; percentages; ratio and proportion; practical algebra; practical plane geometry; solid geometry; and right angle geometry. The course will focus on solving problems related to the Welding profession.
Prerequisite(s): 442-380 Industrial Skills Welders

806 Natural Science

806-112 Principles of Sustainability **3 cr**

Prepares the student to develop sustainable literacy, analyze the interconnections among the physical and biological sciences and environmental systems, summarize the effects of sustainability on health and well-being, analyze connections among social, economic, and environmental systems, employ energy conservation strategies to reduce the use of fossil fuels, investigate alternative energy options, evaluate options to current waste disposal and recycling in the U.S., and analyze approaches used by your community to promote and implement sustainability.

806-115 Food Microbiology **2 cr**

This course is designed to give students an understanding of the relationship of microorganisms to foodborne illness and intoxications. Includes discussion of organisms commonly identified in foodborne illness while exploring how microorganisms can affect food quality, food spoilage, and food safety. Also explores the growing use of probiotics within the food industry. Lab activities will include techniques and procedures used in the identification and qualification of foodborne pathogens.
Prerequisite(s): (806-190 Intro to Microbiology or 806-130 Intro to Microbiology or 806-129 Intro to Microbiology)

806-134 General Chemistry **4 cr**

Covers the fundamentals of chemistry. Topics include the metric system, problem-solving, periodic relationships, chemical reactions, chemical equilibrium, properties of water; acids, bases, and salts; and gas laws.
Restricted to students admitted to the following program(s): Liberal Arts-Assoc of Science

806-143 College Physics 1 **3 cr**

Presents the applications and theory of basic physics principles. This course emphasizes problem solving, laboratory investigation and applications. Topics include laboratory safety, unit conversions and analysis, kinematics, dynamics, work, energy, power, temperature and heat.
Prerequisite(s): 804-113 College Technical Math 1A or 804-115 College Technical Math 1 or 804-134 Mathematical Reasoning

806-154 General Physics 1 **4 cr**

An overview of various physics topics, routinely covered in an introductory physics course, is presented with appropriate accompanying experiments. Included topics are: mechanics, properties of materials, heat, and sound. In addition to the technical science information given, an ability to solve problems, responsibility and initiative is emphasized.
Prerequisite(s): (804-142 Applied Geometry & Trigonomtry or 804-197 College Technical Math 1B) or (804-115 College Technical Math 1 or 804-151 Technical Math 110 or 804-195 College Technical Math 1) or (804-118 Interm Algebra w Apps or 804-150 Math 100 (Advanced Algebra)) or 804-113 College Technical Math 1A or 804-134 Mathematical Reasoning

806-177 Gen Anatomy & Physiology **4 cr**

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.
Prerequisite(s): 836-133 Prep for Basic Chemistry or 806-134 General Chemistry or min score of Y on CHEM

806-179 Adv Anatomy & Physiology **4 cr**

This course is the second semester in a two-semester sequence in which normal human anatomy and physiology are studied using a body systems approach with emphasis on the interrelationships between form and function at the gross and microscopic levels of organization. Instructional delivery within a classroom and laboratory setting. Experimentation within a science lab will include analysis of cellular metabolism, the individual components of body systems such as the nervous, neuro-muscular, cardiovascular, and urinary. Continued examination of homeostatic mechanisms and their relationship to fluid, electrolyte, acid-base balance and blood. Integration of genetics to human reproduction and development are also included in this course.
Prerequisite(s): (806-177 Gen Anatomy & Physiology or 806-140 Anatomy & Physiology I)

806-186 Intro to Biochemistry **4 cr**

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

806-189 Basic Anatomy **3 cr**

Examines concepts of anatomy and physiology as they relate to health careers. Learners correlate anatomical and physiological terminology to all body systems. Prerequisite: High school biology.
Prerequisite(s): (min score of 80 on COMR or min score of 18 on ACTR or min score of 18 on ACTS) or 856-774 Intro to Anatomy & Physiology or (min score of Y on BA or min score of Y on BS or min score of Y on AD)

806-190 Intro to Microbiology **2 cr**

This course is designed to give students a basic understanding of the world of microorganisms. Includes a history of microbiology, classification and taxonomy; cell structure and function; epidemiology, microbial growth and control. Explores how microorganisms impact our lives with discussion about pathogenic, nonpathogenic and opportunistic organisms. Lab activities will include use and care of the microscope, organism sampling, isolation, and staining.

806-197 Microbiology **4 cr**

This course examines microbial structure, metabolism, genetics, growth, and the relationship between humans and microorganisms. Disease production, epidemiology, host defense mechanisms, and the medical impact of microbes in the environment, industry, and biotechnology are also addressed.
Prerequisite(s): 806-177 Gen Anatomy & Physiology or 806-140 Anatomy & Physiology I or 806-207 Anatomy & Physiology 1

806-201 Principles of Biology **4 cr**

Explores fundamental principles of ecology, genetics, evolution, organism structure and function. Some lab sections are specially designed for elementary/special education students who are likely to pursue a career in fields other than the biological or medical sciences.

806-207 Anatomy & Physiology 1 **4 cr**

The fundamentals of bodily function are studied at the cellular, tissue, organ, and organ system levels. Integration of physiological function and anatomical structure will be highlighted in the skeletal, integumentary, muscular, nervous, and endocrine systems. This course is the first semester of a two semester sequence designed for students who wish to transfer to a four year institution.
Prerequisite(s): (min score of Y on BA or min score of Y on BS) or 806-245 Principles of Gen Chemistry 1

806-208 Anatomy & Physiology 2 **4 cr**

The second semester of a two semester sequence detailing the anatomical and physiological features of the human body. Topics covered in both a lab and lecture setting include the cardiovascular, lymphatic, immune, respiratory, digestive, urinary, and reproductive systems, as well as metabolism, fluid electrolyte, and acid-based balance. This course is the second semester of a two-semester sequence designed for students who wish to transfer to a four year institution.
Prerequisite(s): 806-207 Anatomy & Physiology 1

806-220 Conceptual Physics **4 cr**

This introductory physics course encompasses the fundamentals of motion, forces, rotation, gravity, energy, sound, light, fluids, heat, electricity, magnetism and selected topics in modern physics. This laboratory course will focus on the ideas of physics, while employing basic mathematical skills for lab work and problem solving.

806-225 Introduction to Astronomy **3 cr**

This introductory course in astronomy will cover the topics of astronomical motion, the life cycle of stars, the structure and scale of the universe, various forms of light and the electromagnetic spectrum, gravity, nuclear fusion, classification and characteristics of various astronomical objects, the Big Bang theory, historical events in the field of astronomy, constellations, the evolution of our solar system, and applying the scientific method to the cosmos.

806-232 Human Reproductive Biology **3 cr**

Interdisciplinary investigation into human reproductive physiology, from development through reproduction and aging, including contraception and sexually transmitted infections, within a framework of historical context and societal lens.

806-245 Principles of Gen Chemistry 1 **5 cr**

Introduces the laboratory and the scientific method as tools in the study of chemical transformations and the properties of matter. It includes the topics of measurement, chemical nomenclature, chemical reactions and stoichiometry, atomic structure, gas laws, thermochemistry, chemical bonding, kinetics, equilibria, electrochemistry and topics in organic and biochemistry. Qualitative analysis is included in the laboratory course.
Prerequisite(s): 804-118 Interm Algebra w Apps or 804-362 Math 20 or 804-224 College Algebra or min score of 47 on TWMM

806-249 Principles of Gen Chemistry 2 **5 cr**

Includes applications of principles to and mathematical treatment of the topics of kinetics, equilibrium, thermodynamics, electrochemistry, coordination compounds, nuclear chemistry, organic structures, biochemistry, and nomenclature. Qualitative analysis is included in the laboratory course.
Prerequisite(s): 806-245 Principles of Gen Chemistry 1

806-276 Principles General Physics 1 **5 cr**

Develops a conceptual understanding of the basics of physics and provides practical hands-on lab to broaden the understanding of physics. Covers the basic properties of motion, force, energy, momentum, rotation, fluids, heat, sound. Stresses developing good problem-solving strategies.
Prerequisite(s): 804-115 College Technical Math 1 or 804-224 College Algebra or (min score of 57 on TWMA and min score of 15 on TWMT)

806-280 Principles General Physics 2 **4 cr**

Studies electricity, magnetism, geometric and physical optics, basics of modern physics topics.
Prerequisite(s): 806-276 Principles General Physics 1

806-286 Environmental Science **4 cr**

This course examines current environmental challenges and the impacts on the biological and physical world. Students will investigate biodiversity, renewable and nonrenewable resources, human population and health, global climate change, pollution, agriculture, sustainable practices, and ecosystems. It also explores social, historical, economic, and political aspects related to environmental issues. The laboratory component coincides with the lecture portion of the course and incorporates experiments that model the subjects discussed. The experimentation and analysis performed during lab provides the scientific framework needed for comprehending the importance of the environmental topics.

806-301 Basic Microbiology **2 cr**

This two credit course examines microbial structure and growth, as well as the relationship between humans and microorganism. It addresses disease production, epidemiology, host defense mechanisms, and control of medically important microbes. This course cannot be taken for credit if it follows successful completion of or is concurrent with Microbiology (806-197).

806-323 Salon Science 1 **1 cr**

This is a one credit course covering the basic science concepts essential in the beauty industry such as: regulations for health and safety, principles of infection, preventing the spread of disease, basic anatomy and physiology of cells, tissues, and systems, nail structures, growth, diseases and disorders, plus properties of light and electromagnetic waves.
Corequisite(s): 502-320 Nail Technology
Restricted to students admitted to the following program(s): Cosmetology, Nail Technician

806-324 Salon Science 2 **1 cr**

This is a one credit course designed to be a continuation of Salon Science 2 (806-101) for those students pursuing a career in cosmetology. Subjects covered include: Skin structure, growth and nutrition, skin disorders and diseases, hair structure, chemical composition, hair disorders, hair diseases, basics of chemistry, matter, properties, pH, solutions, understanding basic electricity and electric safety.
Prerequisite(s): 806-323 Salon Science 1
Corequisite(s): 502-304 Haircutting 2, 502-321 Salon Services 1
Restricted to students admitted to the following program(s): Cosmetology

806-341 Vocational Science **2 cr**

Provides an introduction to basic physical principles involved in mechanics, hydraulics, thermodynamics, and electronics. Practical utilization of these principles in various technologies is analyzed with reinforcement from problem solving and laboratory exercises.
Prerequisite(s): 804-360D Math for Tech Trades-Diesel or 804-360E Math for Tech Trades-Trans or 804-361 Math 10 or 804-363 Math for Electricty & Electrnc or 804-134 Mathematical Reasoning or 804-360 Math for Technical Trades

806-342 Science for Technical Trades **2 cr**

Provides an introduction to basic physical principles involved in precision measurement, mechanics, hydraulics, thermodynamics, and electronics to students. Practical utilization of these principles in various technologies is analyzed with reinforcement from problem solving and laboratory exercises.
Prerequisite(s): 804-360 Math for Technical Trades or 804-360D Math for Tech Trades-Diesel or 804-360E Math for Tech Trades-Trans or 804-361 Math 10 or 804-363 Math for Electricty & Electrnc

807 Physical Education

807-266 Wellness Today **2 cr**

Contemporary approach to the total wellness concept. Covers fitness and exercise, nutrition and stress management, culminating with personal planning toward lifetime wellness.

809 Social Science

809-103 Think Critically & Creatively **3 cr**

This course provides instruction in the vital, realistic, and practical methods of thinking which are in high demand in all occupations of substance today. Decision making, problem solving, detailed analysis of ideas, troubleshooting, argumentation, persuasion, creativity, setting goals and objectives, and more are considered in depth as the student applies specific thinking strategies and tools to situations in a wide variety of workplace, personal, academic, and cultural situations. Classroom instruction is demonstration, discussion, project and teamwork based. Assignments range from the short and simple to the detailed and complex. Reality and practicality are the focuses all through the course. These skills are in high demand by employers. Having this course in your background can significantly enhance your appeal as an employee. It certainly will make you a more adept and confident person.

809-122 Intro to Amer Government **3 cr**

Introduces American political processes and institutions. Focuses on rights and responsibilities of citizens and the process of participatory democracy. Learners examine the complexity of the separation of powers and checks and balances. Explores the role of the media, interest groups, political parties, and public opinion in the political process. Also explores the role of state and national government in our federal system.
Restricted to students admitted to the following program(s): Liberal Arts-Assoc of Science

809-128 Marriage & Family **3 cr**

This course introduces the student to the sociological aspects of marriage and family life in contemporary American society. Emphasis is on the study of cognitive, emotional, and behavioral patterns associated with courtship, love, mate selection, sexuality, and marriage. Moreover, it discusses the life span development in the family life cycle, balancing work and family, and parenting. This course is based on the premise that human attitudes, feelings, and behaviors are largely shaped and influenced by philosophy, gender, communication, and personal beliefs. Therefore, success in the institutions of marriage and family require knowledge and skills in the roles of spouse and parent and ways to apply concepts to daily life.

809-159 Abnormal Psychology **3 cr**

This course surveys the essential features, possible causes, and assessment and treatment of the various types of abnormal behavior from the viewpoint of the major theoretical perspectives in the field of abnormal psychology. Students will be introduced to the diagnosis system of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV). In addition, the history of the psychology of abnormality will be traced. Cultural and social perspectives in understanding and responding to abnormal behavior will be explored as well as current topics and issues within abnormal psychology.

809-166 Intro to Ethics: Theory & App **3 cr**

This course provides a basic understanding of the theoretical foundations of ethical thought. Diverse ethical perspectives will be used to analyze and compare relevant issues. Students will critically evaluate individual, social, and/or professional standards of behavior and apply a systematic decision-making process to these situations.
Restricted to students admitted to the following program(s): Liberal Arts-Assoc of Science

809-172 Intro to Diversity Studies **3 cr**

This is a course that draws from several disciplines to reaffirm the basic American values of justice and equality by teaching a basic vocabulary, a history of immigration and conquest, principles of transcultural communication, legal liability and the value of aesthetic production to increase the probability of respectful encounters among people. In addition to an analysis of majority/minority relations in a multicultural context, the topics of ageism, sexism, gender differences, sexual orientation, the disabled and the American Disability Act (ADA) are explored. Ethnic relations are studied in global and comparative perspectives.

809-188 Developmental Psychology **3 cr**

This is the study of human development throughout the lifespan. This course explores developmental theory and research with an emphasis on the interactive nature of the biological, cognitive, and psychosocial changes that affect the individual from conception to death. Application activities and critical thinking skills will enable students to gain increased knowledge and understanding of themselves and others. It is recommended that either Intro to Psychology (809-198) or Psychology of Human Relations (809-199) be completed before taking this course.

809-195 Economics **3 cr**

Designed to give an overview of how a market-oriented economic system operates, and it surveys the factors which influence national economic policy. Basic concepts and analyses are illustrated by reference to a variety of contemporary problems and public policy issues. Concepts include scarcity, resources, alternative economic systems, growth, supply and demand, monetary and fiscal policy, inflation, unemployment and global economic issues.
Restricted to students admitted to the following program(s): Liberal Arts-Assoc of Science

809-196 Intro to Sociology **3 cr**

Basic study of the role of society, culture and socialization in shaping individual behavior and societal institutions. Emphasis is placed upon applying sociological principles to both students' job settings and to their interpersonal relationships.
Restricted to students admitted to the following program(s): Liberal Arts-Assoc of Science

809-197 Contemporary Amer Society **3 cr**

This course examines the network of interdependent social systems that affect learners as employees, family members, and citizens. In this interdisciplinary course learners will study public policy issues that illustrate how our traditional institutions such as family, education, government, work, and media are being changed by global, political, demographic,

multicultural, and technological trends. By exploring contemporary issues, learners will expand their use of creative and critical thinking skills in evaluating information, making decisions, advocating positions, and participating in the democratic process. Emphasis is placed on the foundation and structure of American society and the impact that diversity has on its institutions.

809-198 Intro to Psychology **3 cr**

This introductory course in psychology is a survey of the multiple aspects of human behavior. It involves a survey of the theoretical foundations of human functioning in such areas as learning, motivation, emotions, personality, deviance and pathology, physiological factors, and social influences. Additional topics include research methods, biological and environmental impacts, development, sensation and perception, consciousness, intelligence and stress. This course directs the student to an insightful understanding of the complexities of human relationships in personal, social, and vocational settings.
Restricted to students admitted to the following program(s): Liberal Arts-Assoc of Science

809-199 Psychology of Human Relations **3 cr**

Students will become acquainted with the basic theories and concepts of psychology and human behavior, enabling them to be more effective in their work and personal lives. A better understanding of human relations will help the individual adjust and grow in a complex society.

809-202 Social Problems **3 cr**

This course takes a sociological analysis of current social problems by examining the local, national and global impact. Students will become familiar with how the three main sociological theories are applied to the identification, analysis, explanation, and solutions of the various social problems. Some of the topics covered in this course include: inequality, poverty, crime, racial and gender discrimination, drug and alcohol use, education, population and ecology. Students will also consider relevant policy issues and possible solutions to the various social problems.

809-214 Introduction to Gender Studies **3 cr**

This course introduces students to the interdisciplinary study of gender, examines the components that make up gender, and investigates how gender frames human experience. Students explore sex, gender, femininity, masculinity, queer, sexuality, feminism, culture and related topics from a variety of perspectives. Using a range of concepts, research methods, and tools, students analyze how these components are socially constructed, how they intersect, and how they influence our understanding of the world.

809-223 International Relations **3 cr**

International Relations will explore the interactions between states in the international system through the prism of major political science paradigms. In particular the course will examine the ability of these theories to account for military conflict, the creation and expansion of international institutions, and interstate trade. It will also introduce concepts such as power, hegemony, cooperation, nuclear proliferation, and terrorism.

809-225 Ethics **3 cr**

This course engages students in a dialogue with past and present ethical thinkers who provide framework for addressing an array of contemporary moral issues pertaining to the individual and society.

809-227 American Government **3 cr**

American Government acquaints students with American political processes and institutions via a system approach which emphasizes the relationship between structure and behavior. The interrelationship of our state and national governments will first be analyzed in detail stressing political theory and methodology. Students will then examine, research, and analyze the complexity of the concept of separation of powers ("checks and balances") between Congress, the judiciary, the residency, and the bureaucracy as well as explore the role of the media, interest groups, political parties and public opinion in the political process before focusing on the Constitutional rights and responsibilities of citizens and how those citizens access the process of participatory democracy, including elections, most effectively.

809-229 Political Theory **3 cr**

This course introduces students to major political theorists whose ideas offer tools for understanding political issues and institutions. Students will analyze and evaluate key concepts with a view to developing their own well-reasoned political perspectives. Furthermore, students will apply concepts such as human rights, freedom, justice, or equality to interpret the contemporary political landscape.

809-251 General Psychology **3 cr**

Surveys individual and social behavior including its psychological and physiological bases, development, motivation, emotion, perception, learning and behavior disorders. Studies the methods, principles, and theories of contemporary psychology as applied to understanding, predicting, and modifying human behavior.

809-271 Introductory Sociology **3 cr**

Defines and examines concepts and realities of social structure, the social processes that shape behavior, culture, socialization, social groups, and social change. Analyzes concepts and phenomena such as complex organizations, roles, stratification, class, inequality, deviance, and race. Examines institutions such as the family, religion, education, politics, economics and the media.

809-272 Race & Ethnicity in the U.S. **3 cr**

Examination of racial and ethnic minority groups in the U.S. (Native, African, Hispanic and Asian Americans) and the causes, impacts and costs of individual and institutional prejudice, discrimination and racism in American society. Course will also explore how class, gender, and sexuality intersect with race and ethnicity.

809-291 Principles of Microeconomics **3 cr**

Introduces, describes, and analyzes how markets work emphasizing what they do well and how they fail and how individuals, businesses, and governments choose to use scarce resources. Includes descriptions, analyses and critiques of various methods of government intervention in the economy. Analyzes current issues using economic concepts such as income distribution, monopoly, and efficiency. Analyzes business decisions with regard to cost analysis, output determinations; the price system, mechanisms, and determination in the products and factors of production. Discusses other topics such as the environment, regulation vs. deregulation, international markets and trade, technology and economic development.

809-292 Principles of Macroeconomics **3 cr**

Introduction to basic economic principles with applications to current economic problems affecting the overall performance of a nation's economy. Topics include the causes and consequences of unemployment, inflation and economic growth; the role of money and banking in the economy; the role of government taxing and spending policies to correct market failure and stabilize the economy; the implications of budget deficits and the national debt; and the implications of an increasingly global economy.

809-351 Occupational Relations **2 cr**

This course is designed to provide the student with a basic understanding of the human relations skills necessary to succeed in a total quality work environment. This will include workplace trends, team-building skills, customer and co-worker relations, attitude and motivation, safety and stress management, diversity, employment law, and financial and benefits planning.

810 Speech

810-201 Fundamentals of Speech **3 cr**

Examines theory and process of communication, the role of speech in self-development, the nature of meaning, the art of persuasion, topic selection, the use of research-based evidence, and audience analysis. Includes organizing speech content, speech delivery and critique via presentation of informative and persuasive speeches and development of effective extemporaneous speaking style. Students gain self-confidence, proficiency, and poise.

810-205 Interpersonal/Small Group Comm **3 cr**

Introduces students to the theories and concepts of interpersonal and small group communication to help students develop appropriate and effective communication strategies in one-to-one and small group communication settings. Theory and practice are combined to aid students in developing an awareness of group dynamics and the employment of small groups in information-seeking and problem-solving processes. Students will participate in a community service activity that will integrate instruction with applied learning.

815 Art

815-201 Art Appreciation **3 cr**

Art Appreciation is to study visual arts as the transmitters of cultural, humanistic, and aesthetic values from the remote past to present across different cultures. It will help learners develop visual literacy, analytical skills, problem solving abilities, and lifelong appreciation for the visual arts. Students will learn to question the nature of art and its relevance to daily life and will be encouraged to integrate art history, design principles, and aesthetic criticism in understanding artworks within cultural and historical contexts. Students also obtain knowledge of art-making, the material processes, and being aware of controversial issues in the art world.

890 General Studies

890-115 Online Success Strategies **1 cr**

In this course you will learn how to be successful in an online learning environment. You will explore the common characteristics of successful online learners as well as barriers to learning and how to overcome them. The concept of an online learning community will be examined and demonstrated through participation.

890-200 Leadership & Personal Dev **1 cr**

Course takes place at UW Eau Claire. Introduction to the Army profession and military leadership. Exploration of the seven Army values and 16 Army leadership dimensions, as well as some core competencies critical to effective leadership (e.g. management, problem-solving, decision-making). Off campus weekend leadership orientation in a military environment with outdoor physical activities, obstacle course, land navigation/orienteering, basic rifle marksmanship, and confidence course training.

890-201 Intro to Tactical Leadership **1 cr**

Course takes place at UW Eau Claire. Establishes foundation of basic leadership fundamentals such as problem solving, communication, goal setting, and techniques for improving listening and speaking skills. Life skills are reinforced as well as an introduction to counseling and operations orders. Lab provides instruction on squad movement techniques, map reading, physical fitness and marching techniques.

890-202 Innovative Team Leadership **2 cr**

Course takes place at UW Eau Claire. Identification of successful leadership characteristics through the observation of others and self through experiential learning exercises. Students observe traits (both good and bad) and discuss observations in small group settings. The lab applies basic leadership theory and decision making during practical exercises in a field environment.

890-203 Founds of Tactical Leadership **2 cr**

Course takes place at UW Eau Claire. Examines building successful teams, methods for influencing action, effective communication in setting and achieving goals, the importance of timing the decision, creativity in the problem-solving process, and obtaining team cohesion through immediate feedback. The lab applies basic leadership theory and decision making during practical exercises in a field environment.

890-205 Academic Success **1 cr**

This one credit course covers success strategies for academic, professional, and life contexts. Students will learn about the academic community, and they will learn strategies and tactics related to effective studying, time management and prioritization, and problem solving. Emphasis will be placed on service learning and community involvement.

890-206 Career Success Strategies **1 cr**

This course focuses on the CVTC core abilities: models integrity, thinks critically, communicates effectively, and values diversity. Students will demonstrate core abilities and the understanding of what it takes to be career ready and competitive in today's workforce.

890-207 Directed Study Svc Learning **1 cr**

This one credit directed-study course will provide students with the opportunity to grow academically and personally through participation in a service-learning project. Students will meet real needs within their communities by applying knowledge from courses and demonstrating proficiency of the College's core abilities: communicates effectively, thinks critically, models integrity, and values diversity. Students will complete 16 volunteer hours, written reflections, and a final portfolio, in addition to regularly scheduled meetings with a faculty mentor.

890-261 Foundation of Research Methods **4 cr**

This course will outline the fundamentals of doing research, aimed primarily at conducting original research projects with a community service focus. This course will have a focus of systematic inquiry and collection of information and then applying that information to the community around them. The course will appeal to those who require an understanding of research approaches and skills, and importantly an ability to deploy them in your studies or in your future professional lives. No prior knowledge or experience in research is required to take this course. This course is developed to support research training across multiple academic areas.

890-298 CPL Success Strategies **1 cr**

This course focuses on how various learners can demonstrate their connections between experiential learning and classroom theory for the purpose of earning college credit for prior learning.

Chippewa Valley Technical College

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