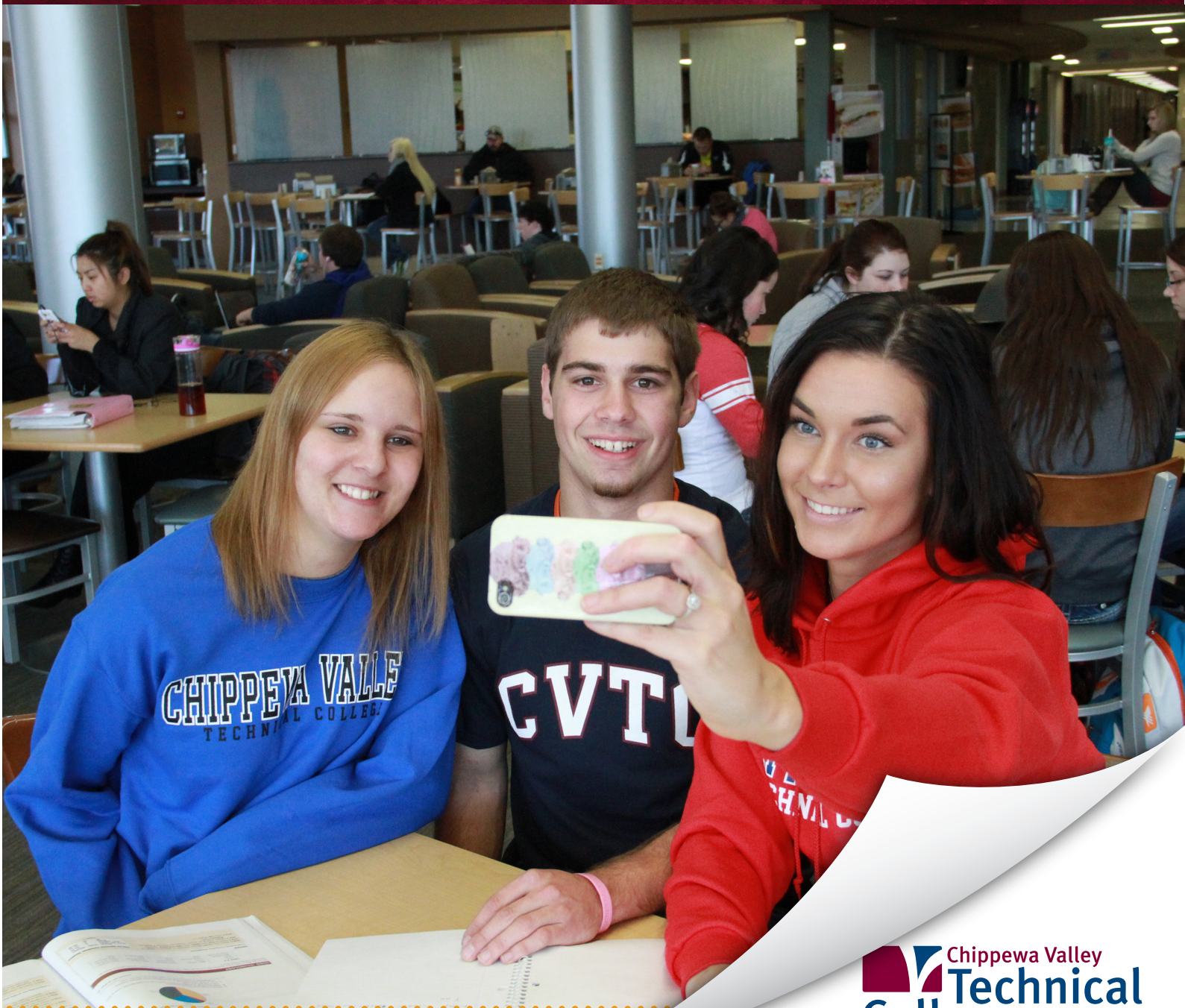


2016-2017 CVTC ACADEMIC CATALOG



CVTC. The right choice.



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





2016-2017 College Calendar

2016 Summer

| | |
|----------------------|---|
| May 9 – June 3 | Interim Period |
| May 30 | Memorial Day Holiday – College Closed |
| June 6 – July 29 | 8-Week Summer Session |
| July 28 | Eau Claire Graduation (TBA) |
| July 4 | July 4 th Holiday – College Closed |
| August 1 – August 26 | Interim Period |

2016-2017 School Year

| | |
|-----------------------------|---|
| August 24 – 25 | Instructor In-service |
| August 26 | Non-Contract Day |
| August 29 | Classes Begin (First Semester – 78 days) |
| September 5 | Labor Day Holiday – College Closed |
| October 21 | End of 8 Weeks |
| November 24 – 25 | Thanksgiving Holiday – College Closed |
| December 19 | Last Day of First Semester Classes |
| December 19 | River Falls Graduation (TBA) |
| December 20 | Eau Claire Graduation (TBA) |
| December 20 | Instructor In-service |
| December 23 and December 26 | Christmas Holiday – College Closed |
| December 30 and January 2 | New Year’s Holiday – College Closed |
| January 3 – 20 | Winter Term |
| January 18 – 19 | Instructor In-service |
| January 20 | Non-Contract Day |
| January 23 | Classes Begin (Second Semester – 78 days) |
| March 17 | End of 8 Weeks |
| March 20 – 24 | Spring Break |
| April 14 | Spring Holiday – College Closed |
| May 18 | Last Day of Second Semester Classes |
| May 18 | River Falls Graduation (TBA) |
| May 19 | Eau Claire Graduation (TBA) |
| May 19 | Instructor In-service |

2017 Summer

| | |
|--------------------|---|
| May 22 – June 9 | Interim Period |
| May 29 | Memorial Day Holiday – College Closed |
| June 12 – August 4 | 8-Week Summer Session |
| August 3 | Eau Claire Graduation (TBA) |
| July 4 | July 4 th Holiday – College Closed |
| August 7 – 25 | Interim Period |



2016-2017 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) | \$130.35 per credit |
| Estimated Tuition (Out of State*) | \$195.53 per credit |
| Estimated Tuition (Liberal Arts) | \$176.35 per credit |
| Estimated Tuition (Liberal Arts Out of State) | \$264.53 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 |
|--|---|
| Accounting | \$13,136.82 |
| Accounting Assistant | \$4,710.66 |
| Agriscience Technician | \$11,708.32 |
| Air Conditioning, Heating & Refrigeration Technology | \$14,310.36 |
| Alcohol & Other Drug Abuse | \$12,629.90 |
| Architectural Structural Design | \$12,310.90 |
| Auto Collision Repair & Refinish Technician | \$11,254.39 |
| Automation Engineering Technology | \$13,163.40 |
| Automotive Maintenance Technician | \$9,148.08 |
| Automotive Technician | \$12,821.14 |
| Bookkeeper | \$1,290.18 |
| Business Management | \$12,128.20 |

| CVTC PROGRAM NAME | Estimated Total Cost for Tuition, Tools & Books |
|--|--|
| Central Service Technician | \$2,825.28 |
| Child Care Services | \$6,197.66 |
| Cosmetology | \$9,038.88 |
| Criminal Justice | \$12,482.38 |
| Criminal Justice-Law Enforcement 720 Academy | \$3,670.32 |
| Dental Assistant | \$5,501.82 |
| Dental Hygienist | \$16,484.04 |
| Diagnostic Medical Sonography | \$12,812.90 |
| Diesel & Heavy Equipment Technician | \$14,813.81 |
| Digital Marketing | \$10,216.00 |
| Early Childhood Education | \$12,507.38 |
| Electrical Power Distribution | \$8,408.18 |
| Electrical Maintenance | \$3,517.65 |
| Electromechanical Maintenance Technician | \$5,294.52 |
| Entrepreneurship | \$4,744.00 |
| Environmental Refrigeration, Air Conditioning & Heating Service Technician | \$7,456.20 |
| Executive Assistant | \$13,555.86 |
| Farm Business & Production Management | \$3,399.48 |
| FireMedic | \$12,850.90 |
| Health Information Management & Technology | \$12,097.82 |
| Human Resources | \$11,815.70 |
| Individualized Technical Studies | \$8,607.72 * |
| Industrial Mechanic | \$7,802.80 |
| Industrial Mechanical Technician | \$13,461.38 |
| Information Technology - 3D Simulations | \$864.12 |
| Information Technology - Database Specialist | \$864.12 |
| Information Technology - Java Programmer | \$864.12 |
| Information Technology - Microsoft .NET Programmer | \$864.12 |
| Information Technology - Mobile Android | \$864.12 |
| Information Technology - Mobile Developer | \$11,184.86 |
| Information Technology - Mobile iOS | \$1,296.18 |
| Information Technology - Network Specialist | \$11,582.36 |
| Information Technology - Software Developer | \$11,184.86 |
| Information Technology - User Support Technician | \$1,296.18 |
| Information Technology - Web Development Specialist | \$864.12 |
| Landscape, Plant & Turf Management | \$11,850.82 |
| Liberal Arts - Associate of Science | \$14,063.00 |
| Machine Tooling Technics | \$12,649.82 |
| Manufacturing Engineering Technologist | \$12,739.86 |

| CVTC PROGRAM NAME | Estimated Total Cost for Tuition, Tools & Books |
|--|--|
| Marketing | \$10,485.70 |
| Mechanical Maintenance | \$3,325.03 |
| Medical Assistant | \$6,161.66 |
| Medical Laboratory Technician | \$13,141.84 |
| Motorcycle, Marine & Outdoor Power Products Technician | \$9,240.24 |
| Nail Technician | \$1,907.00 |
| Nano Engineering Technology | \$13,079.32 |
| Nursing | \$13,307.18 |
| Nursing Assistant | \$582.06 |
| Office Assistant | \$4,897.18 |
| Office Receptionist | \$2,442.84 |
| Organizational Leadership | \$8,633.70 |
| Paralegal | \$11,763.32 |
| Paralegal Post-Baccalaureate (Paralegal Studies) | \$4,686.66 |
| Paramedic Technician | \$11,169.88 |
| Pharmacy Technician | \$6,279.18 |
| Physical Therapist Assistant | \$12,275.40 |
| Professional Communications | \$8,530.20 |
| Radiography | \$11,699.30 |
| Renal Dialysis Technician | \$5,207.06 |
| Renewable Energy | \$2,790.36 |
| Residential Construction | \$7,009.20 |
| Respiratory Therapy | \$12,587.40 |
| Sales Management | \$10,485.70 |
| Surgical Technologist | \$6,540.70 |
| Technical Studies - Journeyworker | \$2,831.85 * |
| Truck Driving | \$2,880.52 |
| Welding | \$8,860.76 |
| Welding Fabrication | \$14,178.88 |

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

Program Information

Accounting – 10-101-1

Associate Degree - Two Years

Offered in Eau Claire • August and January entry dates

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. According to the Bureau of Labor Statistics, employment of accountants and auditors is expected to grow faster than the average for all occupations through the year 2016. 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!

Program Information

| | |
|-----------------------------------|------------------------|
| START DATE(S): August and January | EFFECTIVE: August 2016 |
|-----------------------------------|------------------------|

ACCOUNTING Associate Degree

| Course Number | Course Title | Hrs./Week | Credits | Prerequisite(s)/Comments |
|---|--|-------------------|---------------|---|
| First Semester | | | | Grade of "C" or better for all prerequisites |
| 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 | | | |
| 804-134 | Mathematical Reasoning OR | 4 | 3 | |
| 804-189 | Introductory Statistics | 6 | | |
| Total Hrs. /Week and Total Credits | | 19-21 hrs. | 15 cr. | |
| Second Semester | | | | 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 | |
| 809-195 | Economics | 3 | 3 | |
| 809-122 | Introduction to American Government OR | 3 | 3 | |
| 809-197 | Contemporary American Society | | | |
| Total Hrs. /Week and Total Credits | | 21 hrs. | 18 cr. | |
| Third Semester | | | | Grade of "C" or better for all 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 |
| 101-150 | Accounting Software Applications | 5 | 3 | 101-111 |
| 801-198 | Speech | 3 | 3 | |
| Total Hrs. /Week and Total Credits | | 22 hrs. | 17 cr. | |
| Fourth Semester | | | | Grade of "C" or better for all 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) | | 2 | 101-116 |
| OR | | | | |
| 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 |
| 809-198 | Introduction to Psychology | 3 | 3 | |
| Total Hrs. /Week and Total Credits | | 18-20 hrs. | 16 cr. | |

MINIMUM PROGRAM CREDITS REQUIRED = 66

Program Information

Agriscience Technician – 10-006-3

Associate Degree - Two Years

Offered in Eau Claire • August entry date

Description

If you're interested in a career in agriculture, consider the Agriscience Technician program. You select the courses you need for the area that appeals to you.

The Agronomy/Conservation Planning emphasis can lead to a variety of careers:

- Farm supply business agronomy department
- Custom application of pesticides and fertilizers
- Mix, load, tender chemical/fertilizer deliveries
- Develop nutrient, pest management programs
- Identify pest problems
- Promote and demonstrate agronomic products
- Maintain inventory
- Lab technician
- Crop scout
- Certified custom applicator
- Crop production specialist

The Animal Science emphasis can lead to careers working with animals or assisting livestock owners in maintaining herd health:

- Livestock or dairy herd manager
- Livestock management technician
- Sales/service representative
- Reproductive management specialist
- Dairy/Livestock nutritionist

Associate degree program graduates may progress into serving as the manager of a fertilizer/chemical plant or branch location, or district product representatives. This could be the training you need for a rewarding career in the agriculture emphasis of your choice!

Program Information

| | |
|-----------------------|------------------------|
| START DATE(S): August | EFFECTIVE: August 2016 |
|-----------------------|------------------------|

AGRISCIENCE TECHNICIAN

Associate Degree

| Course Number | Course Title | Hrs./Week | Credits | Prerequisite(s)/Comments |
|--------------------------------|--|-------------------|---------------|--|
| First Semester | | | | |
| 006-116 | Introductory Soils | 4 | 3 | |
| 006-123 | Agriculture Equipment | 4 | 3 | |
| 006-180 | Animal Science OR | 4 | 3 | |
| 006-160 | Plant Science [1st 8 weeks] | 8 | | |
| 103-102 | Microsoft Office Suite | 3 | 2 | |
| 801-136 | English Composition 1 | 3 | 3 | |
| 804-134 | Mathematical Reasoning | 4 | 3 | |
| | Electives | | 2 | |
| | Total Hrs. /Week and Total Credits | 22 hrs. | 19 cr. | |
| Second Semester | | | | |
| 006-110 | Genetics | 2 | 1 | |
| 006-138 | Principles of Ag.-Products Mktg | 4 | 3 | |
| 006-151 | Plant Protection Products OR | 3 | 2 | |
| 006-120 | Livestock Computer Applications | 4 | | |
| 007-111 | Applied Biotechnology | 3 | 2 | |
| 806-134 | General Chemistry* | 5 | 4 | High School Chemistry and Algebra, or 836-133 Prep for Chemistry |
| 006-161 | Weed Identification [2nd 8 weeks] OR | 4 | 2 | |
| 006-188 | Feed Analysis | 4 | | |
| | Elective | | 3 | |
| | Total Hrs. /Week and Total Credits | 20-21 hrs. | 17 cr. | |
| Third Semester (Summer) | | | | |
| 006-164 | Plant Pathology and Entomology OR | 6 | 2 | |
| 006-184 | Herd Health and Sanitation | 4 | | |
| 006-190 | Agriscience Internship | 24 | 3 | Program student, flexible start |
| | Total Hrs. /Week and Total Credits | 28-30 hrs. | 5 cr. | |
| Fourth Semester | | | | |
| 006-114 | Legal Aspects of Agriscience OR | 2 | 2 | |
| 802-103 | Spanish for the Workplace OR | 2 | | |
| 006-168 | Row Crop Management | 3 | | |
| 006-122 | Agriculture Facilities | 3 | 2 | |
| 006-130 | Agribusiness Financial Management | 2 | 2 | |
| 006-140 | Agribusiness Sales | 4 | 3 | |
| 809-195 | Economics | 3 | 3 | |
| | Total Hrs. /Week and Total Credits | 14-15 hrs. | 12 cr. | |
| Fifth Semester | | | | |
| 006-162 | Soil Fertility and Fertilizers AND | 3 | 2 | |
| 006-166 | Computer Applications – Agronomy OR | 4 | 2 | |
| 006-182 | Animal Reproduction AND | 4 | 3 | |
| 006-186 | Managing Youngstock and Dry Cows | 2 | 1 | |
| 006-169 | Forage Crop Management OR | 3 | 2 | |
| 006-189 | Ration Formulation | 3 | | |
| 801-198 | Speech OR | 3 | 3 | |
| 801-196 | Oral/Interpersonal Communication | | | |
| 809-196 | Introduction to Sociology OR | 3 | 3 | |
| 809-199 | Psychology of Human Relations | | | |
| 809-198 | Introduction to Psychology | 3 | 3 | |
| | Total Hrs. /Week and Total Credits | 21-23 hrs. | 15 cr. | |

MINIMUM PROGRAM CREDITS REQUIRED = 68

Program Information

Air Conditioning, Heating, and Refrigeration Technology – 10-601-1

Associate Degree - Two Years

Offered in Eau Claire • August and January entry dates

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!

Program Information

START DATE(S): August and January

EFFECTIVE: August 2016

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 |
| 601-118 | 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, 601-116 |
| 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, 601-116 |
| 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 | 601-161 |
| 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, 601-161; Co-requisite: 601-117 |
| 601-117 | Drafting HVAC | 4 | 2 | 601-165; Co-requisite: 601-113 |
| 601-143 | Advanced HVAC Controls | 4 | 2 | |
| 801-136 | English Composition 1 | 3 | 3 | |
| 806-143 | College Physics 1 | 4 | 3 | 804-113 or 804-115 |
| 809-199 | Psychology of Human Relations | 3 | 3 | |
| Total Hrs./Week and Total Credits | | 24 hrs. | 16 cr. | |

MINIMUM PROGRAM CREDITS REQUIRED = 68

Program Information

Alcohol & Other Drug Abuse – 10-550-1

Associate Degree - Two Years

Offered in Eau Claire • January entry date

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.

Program Information

| | |
|------------------------|-------------------------|
| START DATE(S): January | EFFECTIVE: January 2017 |
|------------------------|-------------------------|

ALCOHOL & 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) | | | (See Liberal Arts Guide) |
| 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) | | | (See Liberal Arts Guide) |
| Total Hrs. /Week and Total Credits | | 18 hrs. | 18 cr. | |
| Second Semester (Summer) | | | | |
| 806-177 | General Anatomy and Physiology (T, L) | 10 | 4 | High School Chemistry with a "C" or better |
| Total Hrs. /Week and Total Credits | | 10 hrs. | 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) with a minimum grade of "C" |
| 809-188 | Developmental Psychology (T) | 3 | 3 | |
| Total Hrs. /Week and Total Credits | | 20 hrs. | 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 Mgmt 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) | | | (See Liberal Arts Guide) |
| Total Hrs. /Week and Total Credits | | 27 hrs. | 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 Hrs. /Week and Total Credits | | 21 hrs. | 12 cr. | |

MINIMUM PROGRAM CREDITS REQUIRED = 70

C = Clinical L = Lab T = Theory/Lecture

Program Information

Architectural Structural Design – 10-614-7

Associate Degree - Two Years

Offered in Eau Claire • August entry date

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!

Program Information

START DATE(S): August

EFFECTIVE: August 2016

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 or (804-113 and 804-114) |
| 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 (or 804-114) |
| 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 with a minimum grade of C |
| 809-195 | Economics (<i>See Tips for other options</i>) | 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

Program Information

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

Technical Diploma - One Year

Offered in Eau Claire • August entry date

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.

Program Information

| | |
|-----------------------|------------------------|
| START DATE(S): August | EFFECTIVE: August 2016 |
|-----------------------|------------------------|

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 <i>[within two weeks prior to first semester]</i> | | 1 | Program student |
| 405-355 | Auto Body Basics <i>[1st 8 weeks]</i> | 20 | 5 | Program student, 405-382, 442-315A or concurrent |
| 405-356 | Nonstructural Repair <i>[2nd 8 weeks]</i> | 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 Hrs. /Week and Total Credits | | 32 hrs. | 17 cr. | |
| Winter Term | | | | |
| 405-370 | Auto Collision Internship | 24 | 1 | Program student |
| Total Hrs. /Week and Total Credits | | 24 hrs. | 1 cr. | |
| Second Semester | | | | |
| 405-357 | Refinishing <i>[1st 8 weeks]</i> | 20 | 5 | 405-356 |
| 405-358 | Structural Repair <i>[2nd 8 weeks]</i> | 20 | 5 | 405-357 or concurrent |
| 405-375 | Estimating and Structural Repair | 4 | 2 | Program student, 405-356, 405-382 or instructor approval |
| 801-355 | Applied Written/Interpersonal Communication | 2 | 1 | |
| 804-360 | Math for Technical Trades | 4 | 2 | |
| Total Hrs. /Week and Total Credits | | 30 hrs. | 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 Hrs. /Week and Total Credits | | 28 hrs. | 7 cr. | |

MINIMUM PROGRAM CREDITS REQUIRED = 40

Program Information

Automation Engineering Technology – 10-664-1

Associate Degree - Two Years

Offered in Eau Claire • August and January entry dates

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.

Program Information

START DATE(S): August and January

EFFECTIVE: August 2016

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 |
| 612-101 | Related Fluid Power OR | 4 | 2 | |
| 612-109 | Related Fluid Power Pneumatics AND | 2 | 1 | |
| 612-110 | Related Fluid Power Hydraulics | 2 | 1 | |
| 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 | |
| 801-136 | English Composition 1 | 3 | 3 | |
| 809-199 | Psychology of Human Relations | 3 | 3 | |
| Total Hrs./Week and Total Credits | | 25-27 hrs. | 17 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 |
| 420-105 | Manual Machining Processes | 4 | 2 | |
| 420-106 | CNC Machining Processes | 2 | 1 | |
| 804-115 | College Technical Math 1 | 5 | 5 | |
| Total Hrs./Week and Total Credits | | 26-27 hrs. | 17 cr. | |
| Third Semester | | | | |
| 605-109 | Industrial Computer Technology | 5 | 3 | 620-193 |
| 606-185 | Blueprint Reading | 2 | 1 | |
| 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 or concurrent |
| 806-154 | General Physics I | 5 | 4 | 804-115 |
| Total Hrs./Week and Total Credits | | 30-32 hrs. | 18-20 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, 620-193 |
| 801-197 | Technical Reporting | 3 | 3 | 801-136 with a minimum grade of C |
| 809-195 | Economics | 3 | 3 | |
| Total Hrs./Week and Total Credits | | 29 hrs. | 18 cr. | |

MINIMUM PROGRAM CREDITS REQUIRED = 70

Program Information

Automotive Maintenance Technician – 31-404-3

Technical Diploma - One Year

Offered in Eau Claire • August entry date

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.

Program Information

| | |
|-----------------------|------------------------|
| START DATE(S): August | EFFECTIVE: August 2016 |
|-----------------------|------------------------|

AUTOMOTIVE MAINTENANCE TECHNICIAN

Technical Diploma

| Course Number | Course Title | Credits | Prerequisite(s)/Comments |
|-------------------------------|--|---------------|---|
| <u>First Semester</u> | | | |
| 404-335 | Automotive Fundamentals <i>[2 weeks prior to start of semester-32 hrs.]</i> | 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. | |
| <u>Winter Term</u> | | | |
| 404-355 | Automotive Computer Systems | 2 | 404-336, 404-337, 404-339, 404-351 |
| | | 2 cr. | |
| <u>Second Semester</u> | | | |
| 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

Program Information

Automotive Technician – 32-404-2

Technical Diploma - Two Years

Offered in Eau Claire • August entry date

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!

Program Information

START DATE(S): August

EFFECTIVE: August 2016

AUTOMOTIVE TECHNICIAN

Technical Diploma

| Course Number | Course Title | Credits | Prerequisite(s)/Comments |
|--|--|---------------|---|
| First Semester | | | |
| 404-335 | Automotive Fundamentals <i>[2 weeks prior to start of semester-32 hrs.]</i> | 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. | |
| 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 |
| 404-355 | Automotive Computer Systems | 2 | 404-336, 404-337, 404-339, 404-352; Co-requisite: 404-338, 404-350, 404-352 |
| 442-313 | Welding - Automotive Technician | 1 | Program or pre-program student |
| 801-356 | Applied Job/Interpersonal Communication | 1 | |
| Total Credits | | 14 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

Program Information

Business Management – 10-102-3

Associate Degree - Two Years

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

Description

If you're interested in business, enjoy leadership roles, 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!

Program Information

| | |
|-----------------------------------|------------------------|
| START DATE(S): August and January | EFFECTIVE: August 2016 |
|-----------------------------------|------------------------|

BUSINESS MANAGEMENT

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 | |
| 801-136 | English Composition 1 | 3 | 3 | |
| 801-198 | Speech | 3 | 3 | |
| Total Hrs./Week and Total Credits | | 15 hrs. | 15 cr. | |
| Second Semester | | | | |
| 102-113 | Business Ethics | 3 | 3 | |
| 102-130 | Innovative Business Mindset OR | 3 | 3 | |
| 116-193 | Introduction to Human Resources OR | | | |
| 102-150 | Global Business | | | |
| 104-104 | Sales Presentations | 3 | 3 | |
| 804-134 | Mathematical Reasoning OR | 4 | 3 | |
| 804-189 | Introductory Statistics | 6 | | |
| 801-196 | Oral/Interpersonal Communication | 3 | 3 | |
| Total Hrs./Week and Total Credits | | 16-18 hrs. | 15 cr. | |
| Third Semester | | | | |
| 101-105 | Intro to Accounting OR | 3 | 3 | |
| 101-111 | Accounting 1 | 5 | 4 | |
| 102-109 | Business Analytics | 3 | 3 | |
| 102-188 | Project Management | 3 | 3 | |
| 809-196 | Introduction to Sociology OR | 3 | 3 | |
| 809-172 | Introduction to Diversity Studies | | | |
| 809-198 | Introduction to Psychology | 3 | 3 | |
| Total Hrs./Week and Total Credits | | 15-17 hrs. | 15-16 cr. | |
| Fourth Semester | | | | |
| 101-184 | Business Finance and Budgeting | 3 | 2 | 101-111 or 101-105 with grade of "C" or better |
| 102-114 | Managing Operations | 3 | 3 | 101-184 or concurrent |
| 102-116 | Management Decision Making | 3 | 3 | 102-112 |
| 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, (102-118 or concurrent) |
| 809-195 | Economics | 3 | 3 | |
| Total Hrs./Week and Total Credits | | 15 hrs. | 15 cr. | |

MINIMUM PROGRAM CREDITS REQUIRED = 60-61

Program Information

Central Service Technician – 30-534-1

Technical Diploma - Less Than One Year

Offered in Eau Claire • January entry date

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 IAHCMM.

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!

Program Information

| | |
|------------------------|-------------------------|
| START DATE(S): January | EFFECTIVE: January 2017 |
|------------------------|-------------------------|

CENTRAL SERVICE TECHNICIAN

Technical Diploma

| Course Number | Course Title | Hrs./Week | Credits | Prerequisite(s)/Comments |
|---|---|-------------------|------------------|---|
| First Semester | | | | |
| 103-102 | Microsoft Office Suite (T) | 2 | 2 | |
| 534-300 | Fundamentals of Central Service Technician (T, L) | 6 | 3 | <u>Program student; Co-requisite 534-302</u> |
| 534-302 | Central Service Technician Clinical (C) [8 weeks following semester] | 24 | 1 | <u>Program student. 501-101, 103-102, 806-301 or concurrent; Co-requisite 534-300</u> |
| 501-101 | Medical Terminology (T) | 3 | 3 | |
| 509-302 | Human Body in Health & Disease (T) OR | 6 | 3 | <u>Program or pre-program student; 501-101 or concurrent</u> |
| 806-177 | General Anatomy and Physiology (T, L) | 5 | 4 | <u>High School Chemistry with a "C" or better</u> |
| 806-301 | Basic Microbiology (T, L) | 4 | 2 | <u>Spring only</u> |
| Total Hrs. /Week and Total Credits | | 20-21 hrs. | 14-15 cr. | |

MINIMUM PROGRAM CREDITS REQUIRED =14

C = Clinical L = Lab T = Theory/Lecture

Program Information

Child Care Services – 31-307-1

Technical Diploma - One Year

Offered in Eau Claire • August entry date

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!

Program Information

| | |
|-----------------------|------------------------|
| START DATE(S): August | EFFECTIVE: August 2016 |
|-----------------------|------------------------|

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 (T) | 3 | 3 | Fall only; Program student |
| 307-151 | ECE: Infant and Toddler Development(T) | 3 | 3 | Fall only; Program student |
| 307-166 | ECE: Curriculum Planning (T, L) | 4 | 3 | Fall only; Program student |
| 307-167 | ECE: Health, Safety, and Nutrition (T, L) | 4 | 3 | Fall only; Program student, Co-requisite 307-174 |
| 307-174 | ECE: Practicum 1(T, C) | 9 | 3 | Fall only; Program student, Co-requisite 307-167 |
| 801-136 | English Composition 1 (T) OR | 3 | 3 | |
| 801-351 | Applied Communication (T) | 3 | 2 | |
| Total Hrs./Week and Total Credits | | 26 hrs. | 17-18 cr. | |
| Second Semester | | | | |
| 307-178 | ECE: Art, Music, and Language Arts (T, L) | 4 | 3 | Spring only; Program student |
| 307-179 | ECE: Child Development (T) | 3 | 3 | Spring only; Program student |
| 307-188 | ECE: Guiding Children's Behavior (T) | 3 | 3 | Spring only; Program student |
| 307-192 | ECE: Practicum 2 (T, C) | 9 | 3 | Spring only, Program student, 307-174 |
| 809-198 | Introduction to Psychology (T) OR | 3 | 3 | |
| 809-351 | Occupational Relations (T) | 3 | 2 | |
| Total Hrs./Week and Total Credits | | 22 hrs. | 14-15 cr. | |

MINIMUM PROGRAM CREDITS REQUIRED = 31

C = Clinical L = Lab T = Theory/Lecture

Program Information

Cosmetology – 31-502-1

Technical Diploma - One Year

Offered in Eau Claire • August and January entry dates

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 barber-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!

Program Information

| | |
|-----------------------------------|------------------------|
| START DATE(S): August and January | EFFECTIVE: August 2016 |
|-----------------------------------|------------------------|

COSMETOLOGY Technical Diploma

| Course Number | Course Title | Hrs./Week | Credits | Prerequisite(s)/Comments |
|--|---|-------------------|---------------|--|
| First Semester | | | | |
| 502-301 | Haircutting 1 <i>[August-October]</i> | 12 | 3 | Grade of "C" or better for all prerequisites Program student; Co-requisite: 502-310, 502-320, 806-321 |
| 502-310 | Chemical Services 1 <i>[August-October]</i> | 12 | 3 | Program student; Co-requisite: 502-301, 502-320, 806-321 |
| 502-320 | Nail Technology <i>[August-October]</i> | 8 | 2 | Program student; Co-requisite: 502-301, 502-310, 806-321 |
| 806-321 | Salon Science | 4 | 2 | Program student; Co-requisite: 502-301, 502-310, 502-320 |
| 502-304 | Haircutting 2 <i>[October-December]</i> | 12 | 3 | Program student; 502-301, 502-310, 502-320, 806-321 or concurrent; Co-requisite: 502-321 |
| 502-321 | Salon Services I <i>[October-December]</i> | 16 | 4 | Program student; 502-301, 502-310, 502-320, 806-321 or concurrent; Co-requisite: 502-304 |
| Total Hrs./Week and Total Credits | | 32-36 hrs. | 17 cr. | |
| Second Semester | | | | |
| 502-322 | Salon Services 2 <i>[January-March]</i> | 16 | 4 | Grade of "C" or better for all prerequisites 502-301, 502-304, 502-310, 502-320, 502-321, 806-321; Co-requisite: 502-330 |
| 502-326 | Salon Services Lab <i>[January-March]</i> | 8 | 2 | 502-301, 502-304, 502-310, 502-320, 502-321, 806-321, (502-314, 502-322, 502-330 or concurrent) |
| 502-330 | Facial Services <i>[January-March]</i> | 8 | 2 | 502-301, 502-304, 502-310, 502-320, 502-321, 806-321; Co-requisite: 502-322 |
| 801-356 | Applied Job/Interpersonal Skills <i>[January-March]</i> | 4 | 1 | |
| 502-314 | Chemical Services 2 <i>[March-May]</i> | 12 | 3 | 502-301, 502-304, 502-310, 502-320, 502-321, 806-321, (502-322, 502-330 or concurrent) |
| 502-311 | Hair Styling <i>[March-May]</i> | 8 | 2 | 502-314, 502-322, 502-326, 502-330 or concurrent; Co-requisite: 502-323 |
| 502-323 | Salon Services 3 <i>[March-May]</i> | 16 | 4 | 502-314, 502-322, 502-326, 502-330 or concurrent; Co-requisite: 502-311 |
| Total Hrs./Week and Total Credits | | 36 hrs. | 18 cr. | |
| Third Semester | | | | |
| 502-305 | Haircutting 3 <i>[June-July]</i> | 8 | 2 | Grade of "C" or better for all prerequisites 502-314, 502-322, 502-330, (502-311, 502-323, 502-326 or concurrent); Co-requisite: 102-306, 502-324, 502-371 |
| 502-324 | Salon Services 4 <i>[June-July]</i> | 16 | 4 | 502-314, 502-322, 502-330, (502-311, 502-323, 502-326 or concurrent); Co-requisite: 102-306, 502-305, 502-371 |
| 102-306 | Salon Business & Marketing <i>[June-July]</i> | 2 | 1 | Co-requisite: 502-305, 502-324, 502-371 |
| 502-371 | Advanced Salon Operations <i>[June-July]</i> | 8 | 2 | *Students registering for the final 8 week courses must have completed all previous courses with a "C" or better. Co-requisite: 102-306, 502-305, 502-324 |
| Total Hrs./Week and Total Credits | | 34 hrs. | 9 cr. | |

MINIMUM PROGRAM CREDITS REQUIRED = 44

Program Information

Criminal Justice – 10-504-5

Associate Degree - Two Years

Offered in Eau Claire and River Falls • August entry date

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.

Program Information

| | |
|-----------------------|------------------------|
| START DATE(S): August | EFFECTIVE: August 2016 |
|-----------------------|------------------------|

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 Hrs. /Week and Total Credits | | 15 hrs. | 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 with a C or better |
| 809-198 | Introduction to Psychology | 3 | 3 | |
| Total Hrs. /Week and Total Credits | | 18 hrs. | 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 | 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 Hrs. /Week and Total Credits | | 18-19 hrs. | 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 | 3 | 2 | Program student |
| 809-159 | Abnormal Psychology | 3 | 3 | 809-198 or 809-251 |
| Total Hrs. /Week and Total Credits | | 19 hrs. | 17-18 cr. | |

MINIMUM PROGRAM CREDITS REQUIRED = 68-70

Program Information

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

Technical Diploma - Less Than One Year

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

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.

Program Information

| | |
|---|------------------------|
| START DATE(S): August, January, and May | EFFECTIVE: August 2016 |
|---|------------------------|

CRIMINAL JUSTICE-LAW ENFORCEMENT 720 ACADEMY
Technical Diploma

| Course Number | Course Title | Credits | Prerequisite(s)/Comments |
|------------------------------|--|---------------|--|
| <u>First Semester</u> | | | |
| 504-700 | Health and Fitness | 1 | <u>Program student</u> |
| 504-701 | Overview of Criminal Justice | 1 | <u>Program student</u> |
| 504-702 | Overview of Patrol Response | 2 | <u>Program student</u> |
| 504-703 | Overview of Tactics | 1 | <u>Program student</u> |
| 504-704 | Overview of Investigations | 2 | <u>Program student</u> |
| 504-705 | Principles of Patrol Response | 2 | <u>Program student</u> |
| 504-706 | Principles of Tactics | 3 | <u>Program student</u> |
| 504-707 | Principles of Emergency Vehicle Response | 2 | <u>Program student</u> |
| 504-708 | Principles of Investigations | 2 | <u>Program student</u> |
| 504-709 | Applications of Traffic Response | 2 | <u>Program student</u> |
| 504-710 | Applications of Investigation | 2 | <u>Program student</u> |
| 504-182 | Scenario Assessment | 1 | <u>Program student, 504-700, 504-701, 504-702, 504-703, 504-704, 504-705, 504-706, 504-707, 504-708, 504-709, 504-710, 504-711, 504-712, 504-713 or concurrent</u> |
| | Total Credits | 21 cr. | |

MINIMUM PROGRAM CREDITS REQUIRED = 21

Program Information

Dental Assistant – 30-508-2

Technical Diploma - Less Than One Year

Offered in Eau Claire • August and January entry dates

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 (x-ray) techniques using digital sensors as well as analog or traditional film-based x-rays
- 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.

Employment is expected to grow 29 percent through 2016, which is much faster than the average for all occupations. You have opportunities!

Program Information

START DATE(S): August and January

EFFECTIVE: August 2016

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 | <u>Program student; Must be completed prior to program start (see tip sheet, computer skills are strongly recommended)</u> |
| 508-302 | Dental Chairside (T, L) | 10 | 5 | <u>Program student, 508-101 or concurrent, Co-requisites: 508-303, 508-304, 508-305, 508-306, 508-307</u> |
| 508-303 | Dental Materials (T, L) | 4 | 2 | <u>Program student, 508-101 or concurrent Co-requisites: 508-302, 508-304, 508-305, 508-306, 508-307</u> |
| 508-304 | Dental and General Anatomy (T) | 3 | 2 | <u>Program student, 508-101 or concurrent, Co-requisites: 508-302, 508-303, 508-305, 508-306, 508-307</u> |
| 508-305 | Applied Dental Radiography (L) | 4 | 2 | <u>Program student, 508-101 or concurrent, Co-requisites: 508-302, 508-303, 508-304, 508-306, 508-307</u> |
| 508-306 | Dental Assistant Clinical (C) [2nd 8 weeks] | 10 | 3 | <u>Program student, 508-101 or concurrent, Co-requisites: 508-302, 508-303, 508-304, 508-305, 508-307</u> |
| 508-307 | Dental Assistant Professional (T) | 2 | 1 | <u>Program student, 508-101 or concurrent, Co-requisites: 508-302, 508-303, 508-304, 508-305, 508-306</u> |
| | Total Hrs. /Week and Total Credits | 23 hrs. | 16 cr. | |

MINIMUM PROGRAM CREDITS REQUIRED = 16

C = Clinical L = Lab T = Theory/Lecture

Program Information

Dental Hygienist – 10-508-1

Associate Degree - Two Years

Offered in Eau Claire • August entry date

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 (x-ray) techniques using digital sensors as well as analog or traditional film-based x-rays
- 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.

Program Information

START DATE(S): August

EFFECTIVE: August 2016

DENTAL HYGIENIST

Associate Degree

| Course Number | Course Title | Hrs./Week | Credits | Prerequisite(s)/Comments |
|---------------|---|----------------|-------------------|--|
| 806-177 | First Semester (Summer) General Anatomy and Physiology (T, L) Total Hrs./Week and Total Credits | 10 | 4 4 cr. | High School Chemistry with a "C" or better |
| 508-101 | Dental Health Safety (L) (August, 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) |
| 508-102 | Second Semester Oral Anatomy, Embryology, Histology (T, L) | 5 | 4 | Program student, 806-177, (508-101 or concurrent) |
| 508-103 | Dental Radiography (T, C) | 4 | 2 | Program student, 806-177, (508-101, 508-102 or concurrent) |
| 508-105 | Dental Hygiene Process 1 (T, C) | 8 | 4 | Program student, 806-177, (508-101, 508-102, 508-103 or concurrent) |
| 806-186 | Introduction to Biochemistry (T, L) | 5 | 4 | Fall only |
| 806-197 | Microbiology (T, L) | 5 | 4 | 806-177 |
| | Total Hrs./Week and Total Credits | 27 hrs. | 19 cr. | |
| 508-106 | Third Semester 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 or concurrent |
| 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. | |
| 508-112 | Fourth Semester 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. | |
| 508-107 | Fifth Semester 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

C = Clinical L = Lab T = Theory/Lecture

Program Information

Diagnostic Medical Sonography – 10-526-2

Associate Degree - Two Years

Offered in Eau Claire • August entry date

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.

Program Information

| | |
|-----------------------|------------------------|
| START DATE(S): August | EFFECTIVE: August 2016 |
|-----------------------|------------------------|

DIAGNOSTIC MEDICAL SONOGRAPHY

Associate Degree

| Course Number | Course Title | Hrs./Week | Credits | Prerequisite(s)/Comments |
|---|--|----------------|---------------|--|
| First Semester | | | | |
| 501-101 | Medical Terminology (T) | 3 | 3 | |
| 526-200 | Introduction to DMS (T, L) | 4 | 3 | Program student |
| 804-134 | Mathematical Reasoning (T) | 4 | 3 | |
| 806-154 | General Physics 1 (T, L) | 5 | 4 | 804-134 |
| 806-177 | *General Anatomy & Physiology (T, L) OR | 5 | 4 | High School Chemistry with a "C" or better |
| 806-207 | *Anatomy & Physiology 1 (T, L) | | | 806-245 |
| Total Hrs./Week and Total Credits | | 21 hrs. | 17 cr. | |
| Second Semester | | | | |
| 526-221 | Sonography Physics 1(T,L) | 4 | 3 | Program student, 526-200, 804-134, 806-154; Co-requisite 526-223 |
| 526-207 | Abdominal Sonography (T, L) | 6 | 4 | 501-101, 806-177 or 806-207, (806-179 or 806-208 or concurrent) |
| 526-208 | OB/GYN Sonography 1 (T, L) | 4 | 3 | 501-101, 806-177 or 806-207, (806-179 or 806-208 or concurrent) |
| 526-210 | Cross Sectional Anatomy (T) | 2 | 2 | Program student; 526-207, 526-208 or concurrent |
| 526-223 | Vascular Imaging 1 (T, L) | 4 | 3 | Program student; 526-200; Co-requisite 526-221 |
| 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 | | 25 hrs. | 19 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) [2 nd 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) [1 st 8 weeks, 320 total hours] | 40 | 2 | Program student, 526-212; Co-requisite 526-226 |
| 526-226 | DMS Clinical Experience 2 (C) [2 nd 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

C=Clinical L = Lab T = Theory/Lecture

Program Information

Diesel & Heavy Equipment Technician – 32-412-1

Technical Diploma - Two Years

Offered in Eau Claire • August entry date

Description

If you have a talent for working with mechanical systems and good problem-solving skills, the Diesel/Heavy Equipment Technician (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!

Program Information

| | |
|-----------------------|------------------------|
| START DATE(S): August | EFFECTIVE: August 2016 |
|-----------------------|------------------------|

DIESEL & HEAVY EQUIPMENT TECHNICIAN

Technical Diploma

| Course Number | Course Title | Hrs./Week | Credits | Prerequisite(s)/Comments |
|--|---|----------------|---------------|---|
| First Semester | | | | |
| 412-305 | Truck Chassis I (T, L) [1 st 8 weeks] | 20 | 5 | Program student, Co-requisite: 412-306 |
| 412-306 | Truck Chassis II (T, L) [2 nd 8 weeks] | 20 | 5 | Co-requisite: 412-305 |
| 412-345 | Basic DC Electricity (T, L) | 3 | 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 | | 29 hrs. | 15 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 |
| 458-306 | CDL License Training (T, L) | 6 | 3 | Program student |
| 804-360 | Math for Technical Trades (T) | 4 | 2 | |
| Total Hrs./Week and Total Credits | | 28 hrs. | 17 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) [1 st 8 weeks] | 4 | 1 | Co-requisite: 412-311 |
| 806-342 | Science for Technical Trades (T, L) | 4 | 2 | 804-360 |
| Total Hrs./Week and Total Credits | | 29 hrs. | 15 cr. | |
| Fourth Semester | | | | |
| 412-313 | Diesel Engine Overhaul (T, L) | 10 | 5 | 412-312, Co-requisites: 412-314, 412-315 |
| 412-314 | Electronic Diagnostics (T, L) | 8 | 4 | 412-312, Co-requisites: 412-313, 412-315 |
| 412-315 | Preventive Maintenance (L) | 2 | 1 | 412-312, Co-requisites: 412-313, 412-314 |
| 412-380 | Diesel Internship (144 hours) | 8 | 2 | 412-312 |
| 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 | | 27 hrs. | 16 cr. | |

MINIMUM PROGRAM CREDITS REQUIRED = 63

T = Theory

L = Lab

Program Information

Digital Marketing – 10-104-8

Associate Degree - Two Years

Offered in Eau Claire • August and January entry dates

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 Digital Marketing program you will have a richer understanding of the foundations of the new digital marketing landscape and acquire a set of skills, concepts, and tools to help you digitally create, distribute, promote and price products and services.

Program Information

| | |
|--------------------------------|-------------------------|
| START DATE(S): August, January | EFFECTIVE: January 2017 |
|--------------------------------|-------------------------|

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 | |
| 801-136 | English Composition 1 | 3 | 3 | |
| 801-198 | Speech | 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 | <u>104-102</u> |
| 104-162 | Mobile Marketing | 3 | 3 | <u>104-102</u> |
| 104-164 | Digital Design Broadcast | 3 | 3 | <u>104-112</u> |
| 104-109 | Social Media Marketing Strategy | 2 | 2 | <u>104-102, (104-125 or concurrent)</u> |
| 104-125 | Advertising | 3 | 3 | <u>104-102</u> |
| 196-138 | Creativity and Innovation | 1 | 1 | |
| Total Hrs./Week and Total Credits | | 16 hrs. | 15 cr. | |
| Third Semester | | | | |
| 104-127 | Digital Marketing Campaigns | 3 | 3 | <u>104-109, 104-112</u> |
| 104-163 | Social Media Policies and Ethics | 3 | 3 | <u>104-109</u> |
| 152-148 | Digital Design Web Building | 3 | 3 | <u>104-112, 104-164</u> |
| 801-196 | Oral/Interpersonal Communication | 3 | 3 | |
| 804-134 | Mathematical Reasoning OR | 4 | 3 | |
| 804-189 | Introductory Statistics | 6 | | |
| Total Hrs./Week and Total Credits | | 16-18 hrs. | 15 cr. | |
| Fourth Semester | | | | |
| 101-105 | Introduction to Accounting OR | 3 | 3 | |
| 101-111 | Accounting 1 | 5 | 4 | |
| 104-174 | Digital Marketing Analytics | 2 | 2 | <u>104-112, 104-127</u> |
| 104-184 | Personal Branding-Digital Age | 2 | 2 | <u>Program student, 104-127; Co-requisite: 104-153</u> |
| 104-153 | Digital Marketing Internship | | 1 | <u>Program student, 104-127; Co-requisite: 104-184</u> |
| 809-195 | Economics | 3 | 3 | |
| 809-166 | Intro to Ethics: Theory & Application OR | 3 | 3 | |
| 809-172 | Intro to Diversity Studies OR | | | |
| 809-196 | Intro to Sociology | | | |
| Total Hrs./Week and Total Credits | | 13-15 hrs. | 14-15 cr. | |

MINIMUM PROGRAM CREDITS REQUIRED = 60-61

Program Information

Early Childhood Education – 10-307-1

Associate Degree - Two Years

Offered in Eau Claire • August entry date

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!

Program Information

| | |
|-----------------------|------------------------|
| START DATE(S): August | EFFECTIVE: August 2016 |
|-----------------------|------------------------|

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 (T) | 3 | 3 | Fall only; Program student |
| 307-151 | ECE: Infant and Toddler Development (T) | 3 | 3 | Fall only; Program student |
| 307-166 | ECE: Curriculum Planning (T, L) | 4 | 3 | Fall only; Program student |
| 307-167 | ECE: Health, Safety, and Nutrition (T, L) | 4 | 3 | Fall only; Program student; Co-requisite 307-174 |
| 307-174 | ECE: Practicum 1 | 9 | 3 | Fall only; Program student; Co-requisite 307-167 |
| 801-136 | English Composition 1 (T) | 3 | 3 | |
| Total Hrs./Week and Total Credits | | 26 hrs. | 18 cr. | |
| Second Semester | | | | |
| 307-188 | ECE: Guiding Children's Behavior (T) | 3 | 3 | Spring only; Program student |
| 307-178 | ECE: Art, Music, and Language Arts (T, L) | 4 | 3 | Spring only; Program student |
| 307-179 | ECE: Child Development (T) | 3 | 3 | Spring only; Program student |
| 307-192 | ECE: Practicum 2 | 9 | 3 | Spring only; Program student, 307-174 |
| 809-198 | Introduction to Psychology (T) | 3 | 3 | |
| Total Hrs./Week and Total Credits | | 22 hrs. | 15 cr. | |
| Continue and complete 3rd and 4th semesters to graduate with the Early Childhood Education associate degree (10-307-1) | | | | |
| Third Semester | | | | |
| 307-194 | ECE: Math, Science, and Social Studies (T, L) | 4 | 3 | Fall only; Program student |
| 307-195 | ECE: Family and Community Relationships (T) | 3 | 3 | Fall only; Program student |
| 307-197 | ECE: Practicum 3 | 9 | 3 | Fall only; Program student, 307-192 |
| 804-134 | Mathematical Reasoning | 4 | 3 | |
| 809-122 | Introduction to American Government | 3 | 3 | |
| 809-128 | Marriage and Family (T) | 3 | 3 | |
| Total Hrs./Week and Total Credits | | 25-26 hrs. | 18 cr. | |
| Fourth Semester | | | | |
| 307-187 | ECE: Children with Differing Abilities (T) | 3 | 3 | Spring only; Program student |
| 307-198 | ECE: Administering an Early Childhood Education Program (T) | 3 | 3 | Spring only; Program student |
| 307-199 | ECE: Practicum 4 | 9 | 3 | Spring only; Program student, 307-197 |
| 801-196 | Oral/Interpersonal Communication (T) OR | 3 | 3 | |
| 801-198 | Speech (T) | | | |
| 809-172 | Intro to Diversity Studies (T) | 3 | 3 | |
| | Elective (See suggested electives below) | 3 | 3 | |
| Total Hrs./Week and Total Credits | | 24 hrs. | 18 cr. | |
| Suggested Electives | | | | |
| 809-188 | Developmental Psychology (T) | 3 | 3 | |
| 809-195 | Economics (T) | 3 | 3 | |

MINIMUM PROGRAM CREDITS REQUIRED = 69

L = Lab T = Theory

Program Information

Electrical Power Distribution – 31-413-2

Technical Diploma - One Year

Offered in Eau Claire • June entry date

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!

Program Information

| | |
|---------------------|----------------------|
| START DATE(S): June | EFFECTIVE: June 2016 |
|---------------------|----------------------|

ELECTRICAL POWER DISTRIBUTION

Technical Diploma

| Course Number | Course Title | Hrs./ Week | Credits | Prerequisite(s)/Comments |
|---|---|------------------|---------------|--|
| First Semester (June –October) | | | | |
| 413-310 | Basic EPD Safety (T) <i>[1st 8 weeks]</i> | 8 | 2 | Program student |
| 413-311 | Introduction to Pole Climbing (L) <i>[1st 8 weeks]</i> | 8 | 2 | Program student |
| 804-360 | Math for Technical Trades (T) <i>[1st 8 weeks]</i> | 8 | 2 | |
| 413-312 | Basic EPD Electricity (T) <i>[1st 8 weeks]</i> | 4 | 1 | Program student |
| 413-313 | URD Installation & Termination (L) <i>[1st 8 weeks]</i> | 8 | 2 | Program student |
| 413-320 | Intermediate EPD Electricity (T) <i>[2nd 8 weeks]</i> | 16 | 4 | Program student, 413-310, 413-311, 413-312, 413-313, 804-360 |
| 413-321 | OH Line Design & Construction (L) <i>[2nd 8 weeks]</i> | 20 | 5 | Program student, 413-310, 413-311, 413-312, 413-313, 804-360 |
| 801-357 | Applied Written/Job Seeking Communication (T) <i>[2nd 8 weeks]</i> | 4 | 1 | |
| Total Hrs. /Week and Total Credits | | 36-40hrs. | 19 cr. | |
| Second Semester (October-March) | | | | |
| 809-351 | Occupational Relations (T) <i>[1st 8 weeks]</i> | 6 | 2 | |
| 458-306 | CDL License Training <i>[1st 8 weeks]</i> | 12 | 3 | Program student |
| 413-330 | Advanced EPD Safety (T) <i>[2nd 8 weeks]</i> | 4 | 1 | Program student, 413-310, 413-311, 413-312, 413-313, 804-360 |
| 413-331 | Power Line Apparatus (L) <i>[2nd 8 weeks]</i> | 8 | 2 | Program student, 413-310, 413-311, 413-312, 413-313, 413-320, 413-321, 804-360 |
| 413-332 | Advanced EPD Electricity (T) <i>[2nd 8 weeks]</i> | 8 | 2 | Program student, 413-310, 413-311, 413-312, 413-313, 413-320, 413-321, 804-360 |
| 413-333 | Transmission Line Construction (L) <i>[2nd 8 weeks]</i> | 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) <i>[2nd 8 weeks]</i> | 8 | 2 | 804-360 |
| 413-334 | Live Line Maintenance (L) <i>[2nd 8 weeks]</i> | 4 | 1 | Program student, 413-310, 413-311, 413-312, 413-313, 413-320, 413-321, 804-360 |
| Total Hrs. /Week and Total Credits | | 32 hrs. | 15 cr. | |

MINIMUM PROGRAM CREDITS REQUIRED = 34

L = Lab T = Theory/Lecture

Program Information

Entrepreneurship – 31-145-2

Associate Degree - Two Years

Offered in Eau Claire • January entry date

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.

Program Information

| | |
|------------------------|-------------------------|
| START DATE(S): January | EFFECTIVE: January 2017 |
|------------------------|-------------------------|

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 | | | | |
| 145-105 | Entrepreneurial Finance [<i>1st 8 weeks</i>] | 3 | 3 | <u>101-105</u> |
| 145-107 | Entrepreneurial Legal Issues [<i>1st 8 weeks</i>] | 2 | 2 | |
| 145-108 | Entrepreneurial Marketing [<i>1st 8 weeks</i>] | 2 | 2 | <u>104-102</u> |
| 145-106 | Entrepreneurial Management [<i>2nd 8 weeks</i>] | 3 | 3 | |
| 145-109 | Entrepreneurial Capstone [<i>2nd 8 weeks</i>] | 4 | 4 | <u>Instructor Approval</u> |
| Total Hrs./Week and Total Credits | | 14 hrs. | 14 cr. | |

MINIMUM PROGRAM CREDITS REQUIRED = 30

Program Information

Executive Assistant – 10-106-6

Associate Degree - Two Years

Offered Online • August and January entry dates

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.

Program Information

START DATE(S): August and January

EFFECTIVE: August 2016

EXECUTIVE ASSISTANT

Associate Degree

| Course Number | Course Title | Weeks | Hours/Week | Credits | Prerequisite(s)/Comments |
|--|---|-------|--------------|---------------|---|
| First Semester | | | | | |
| 106-118 | Computer Basics 1 | 1-4 | 4 | 1 | |
| 106-150 | Office Procedures 1 AND | 1-4 | 4 | 1 | |
| 106-165 | Office Equipment OR | 5-8 | 4 | 1 | |
| 509-130 | Medical Office Procedures | 9-16 | 6 | 2 | |
| 106-113 | Customer Service 1 | 5-8 | 8 | 1 | |
| 106-121 | Computer Basics 2 | 5-8 | 4 | 1 | 106-118 or concurrent |
| 106-152 | Job Search-Business Support Professional 1 | 9-12 | 4 | 1 | |
| 106-114 | Customer Service 2 | 9-12 | 4 | 1 | |
| 103-102 | Microsoft Office Suite | 9-16 | 4 | 2 | |
| 106-110 | Business Support Professional Practice 1 (64 hours) | 9-16 | 8 | 1 | 103-102, 106-113, 106-114, 106-115, 106-121, 106-152 or concurrent |
| 106-115 | Customer Service 3 | 13-16 | 4 | 1 | |
| 101-105 | Accounting, Intro to OR | | 3 | 3 | |
| 106-162 | Legal Terminology OR | | 3 | | |
| 501-101 | Medical Terminology | | 3 | | |
| 801-196 | Oral/Interpersonal Communication | | 3 | 3 | |
| Weeks/Total Hours/Total Credits | | | 10-32 | 17 cr. | |
| Second Semester | | | | | |
| 106-107 | Publications | 1-4 | 4 | 1 | 103-102 |
| 106-122 | Document Processing | 1-4 | 8 | 1 | 103-102 |
| 106-128 | Business Words at Work 1 | 1-4 | 8 | 1 | 103-102 |
| 106-116 | Database | 5-8 | 8 | 1 | 103-102 |
| 106-124 | Spreadsheets 1 | 5-8 | 8 | 1 | 103-102 |
| 106-129 | Business Words at Work 2 | 5-8 | 4 | 1 | 106-128 or concurrent |
| 106-130 | Business Words at Work 3 | 9-12 | 4 | 1 | 106-129 or concurrent |
| 106-160 | Office Procedures 2 | 9-12 | 4 | 1 | |
| 106-172 | Microsoft Outlook | 9-12 | 4 | 1 | |
| 106-135 | Business Support Professional Internship 1 (64 hours) | 9-16 | 8 | 1 | 106-107, 106-116, 106-122, 106-124, 106-130, (106-172 or concurrent) |
| 106-111 | Business Support Professional Practice 2 | 13-16 | 4 | 1 | 106-110 or concurrent |
| 106-125 | Spreadsheets 2 | 13-16 | 8 | 1 | 106-124 or concurrent |
| 101-149 | Intro to QuickBooks OR | | 4 | 2 | 101-105 or 101-111 with C or better |
| 106-182 | Legal Computing OR | | 2 | | |
| 530-103 | Medical Insurance & Billing | | 2 | | |
| 809-198 | Intro to Psychology OR | | 3 | 3 | |
| 809-199 | Psychology of Human Relations | | | | |
| Weeks/Total Hours/Total Credits | | | 23-27 | 17 cr. | |
| Third Semester | | | | | |
| 106-100 | Web Technologies 1 | 1-4 | 4 | 1 | |
| 106-133 | Project Planning | 1-4 | 4 | 1 | |
| 106-102 | Web Technologies 2 | 5-8 | 4 | 1 | |
| 106-158 | Meeting & Event Planning | 5-8 | 4 | 1 | 106-133 or concurrent |
| 106-156 | Records Management | 9-12 | 4 | 1 | |
| 106-167 | Office Procedures 3 | 9-12 | 4 | 1 | |
| 106-155 | Job Search-Business Support Professional 2 | 13-16 | 4 | 1 | 106-152 |
| 106-169 | Applied Software | 13-16 | 4 | 1 | 106-125, (106-107, 106-116, 106-122, 106-124, 106-130, 106-172 or concurrent) |
| 801-136 | English Composition 1 | | 3 | 3 | |
| 804-134 | Mathematical Reasoning OR | | 4 | 3 | |
| 804-189 | Introductory Statistics | | 6 | | |
| 809-172 | Introduction to Diversity Studies | | 3 | 3 | |
| Weeks/Total Hours/Total Credits | | | 18-21 | 17 cr. | |
| Fourth Semester | | | | | |
| 106-112 | Business Support Professional Practice 3 | 5-8 | 4 | 1 | 106-111 |
| 106-168 | Business Support Professional Internship 2 (64 hours) | 9-16 | 8 | 1 | 106-102, 106-155, 106-156, 106-158, 106-167, 106-169, (106-100 or concurrent) |
| 101-121 | Payroll Accounting | | 3 | 3 | |
| 102-112 | Principles of Management | | 3 | 3 | |
| 116-193 | Introduction to Human Resources | | 3 | 3 | |
| 801-197 | Technical Reporting | | 3 | 3 | 801-136 with C or better |
| 809-122 | Introduction to American Government | | 3 | 3 | |
| Weeks/Total Hours/Total Credits | | | 15-23 | 17 cr. | |

MINIMUM PROGRAM CREDITS REQUIRED = 68

Program Information

Farm Business & Production Management – 30-090-1

Technical Diploma - Six years, Part-time

Offered in various locations throughout the district • August 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.

Program Information

| | |
|-----------------------|------------------------|
| START DATE(S): August | EFFECTIVE: August 2016 |
|-----------------------|------------------------|

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 |
|---------------|---|---------------|--------------------------|
| | <u>First Term</u> | | |
| 090-310 | Farm Business Planning & Risk Management | 4 | <u>Program student</u> |
| 090-320 | Land Use Management | 4 | <u>Program student</u> |
| 090-330 | Precision Agronomics & Energy Management | 4 | <u>Program student</u> |
| 090-340 | Livestock Nutrition & Reproduction | 4 | <u>Program student</u> |
| 090-350 | Farm Business Analysis & Marketing Strategy | 4 | <u>Program student</u> |
| 090-360 | Livestock Facility, Health & Biosecurity | 4 | <u>Program student</u> |
| | Total Credits | 24 cr. | |

MINIMUM PROGRAM CREDITS REQUIRED = 24

Program Information

FireMedic – 10-531-2

Associate Degree - Two Years

Offered in Eau Claire • January entry date

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!

Program Information

| | |
|------------------------|-------------------------|
| START DATE(S): January | EFFECTIVE: January 2017 |
|------------------------|-------------------------|

FIREMEDIC Associate Degree

| Course Number | Course Title | Hrs./Week | Credits | Prerequisite(s)/Comments |
|--|---|----------------|---------------|--|
| First Semester | | | | |
| 801-136 | English Composition 1 (T) OR | 3 | 3 | |
| 801-219 | English Composition 1 (T) | | | |
| 806-177 | General Anatomy and Physiology (T) | 5 | 4 | |
| 809-172 | Intro to Diversity Studies (T) | 3 | 3 | <i>Online offering</i> |
| 809-198 | Introduction to Psychology (T) | 3 | 3 | |
| Total Hrs./Week and Total Credits | | 14 hrs. | 13 cr. | |
| Second Semester (Summer) | | | | |
| 503-105 | Principles of Firefighting (L) | 6 | 3 | Program student |
| 503-107 | Fire Dept. Apparatus Ops (T, L) | 10 | 3 | Program student, 503-105 or concurrent |
| Total Hrs./Week and Total Credits | | 16 hrs. | 6 cr. | |
| Third Semester | | | | |
| 503-141 | Special Rescue (L) | 6 | 2 | Program student |
| 531-911 | EMS Fundamental (T) | 2 | 2 | Program student |
| 801-196 | Oral/Interpersonal Communication (T) | 3 | 3 | |
| 806-179 | Advanced Anatomy and Physiology (T, L) | 5 | 4 | 806-177 |
| 809-188 | Developmental Psychology (T) | 3 | 3 | |
| Total Hrs./Week and Total Credits | | 19 hrs. | 14 cr. | |
| Fourth Semester | | | | |
| 531-912 | Paramedic Medical Principles (T) | 4 | 4 | Program student; 531-911 or concurrent |
| 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 |
| Total Hrs./Week and Total Credits | | 28 hrs. | 18 cr. | |
| Fifth Semester (Summer) | | | | |
| 531-919 | Paramedic Medical Emergencies (T) | 4 | 4 | Program student |
| 531-926 | Paramedic Clinical/Field 1B | 4 | 1 | Program student; 531-925 or concurrent |
| 503-144 | Advanced Firefighting Concepts | 2 | 1 | Program student; 503-919 or concurrent |
| Total Hrs./Week and Total Credits | | 10 hrs. | 6 cr. | |
| Sixth 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 |
| 503-160 | FireMedic Clinical/Field 2 (448 hours) | 28 | 5 | Program student; 531-921 or concurrent |
| 531-190 | FireMedic Capstone | 2 | 1 | Program student; 531-922 or concurrent |
| Total Hrs./Week and Total Credits | | 39 hrs. | 13 cr. | |

MINIMUM PROGRAM CREDITS REQUIRED = 70

C = Clinical L = Lab T = Theory

Program Information

Health Information Management & Technology – 10-530-6

Associate Degree - Two Years

Offered in Eau Claire • August entry date

Description

If you are interested in the healthcare industry and information technology the Health Information Management & Technology Program (HIM&T) 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.

Program Information

| | |
|-----------------------|------------------------|
| START DATE(S): August | EFFECTIVE: August 2016 |
|-----------------------|------------------------|

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 <i>[Online only]</i> | 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 |
| Total Hrs./Week and Total Credits | | 18 hrs. | 15 cr. | |
| Second Semester | | | | |
| 530-103 | Medical Insurance & Billing <i>[Online only]</i> | 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 <i>[Online only]</i> | 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 | 5 | 4 | 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 <i>[Online only]</i> | 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) |
| 809-122 | Introduction to American Government | 3 | 3 | |
| Total Hrs./Week and Total Credits | | 23 hrs. | 15 cr. | |
| Fifth Semester | | | | |
| 530-150 | Applied HIM Technology | 4 | 2 | Program student, 530-118, 530-160 |
| 530-161 | Health Quality Management <i>[Online only]</i> | 4 | 3 | Program student, 530-118 |
| 530-195 | Applied Coding | 3 | 2 | Program student, 530-185 |
| 530-126 | HIMT Practicum 2 (Clinical) | 10 | 2 | Program student, 530-124, (530-150, 530-161, 530-195 or concurrent) |
| 809-172 | Intro to Diversity Studies OR | 3 | 3 | |
| 809-195 | Economics OR | | | |
| 809-197 | Contemporary American Society | | | |
| 809-198 | Introduction to Psychology | 3 | 3 | |
| Total Hrs./Week and Total Credits | | 27 hrs. | 15 cr. | |

MINIMUM PROGRAM CREDITS REQUIRED = 66

C = Clinical L = Lab T = Theory/Lecture

Program Information

Human Resources – 10-116-1

Associate Degree - Two Years

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

Description

If you're interested in helping others, working as a member of a team, and communicating with others, a career in human resources could be a good match for you.

Human Resources plays a critical role in the success of any organization. With the employment picture rapidly changing, human resources professionals have diverse career opportunities. CVTC's Human Resources program is your first step toward a rewarding career.

This program includes an internship and covers the key areas 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 HR generalists, recruiters, trainers, payroll administrators and other human resource specialists in private industry, nonprofit organizations and government agencies.

Program Information

| | |
|-----------------------------------|------------------------|
| START DATE(S): August and January | EFFECTIVE: August 2016 |
|-----------------------------------|------------------------|

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 | |
| 104-102 | Marketing Principles | 3 | 3 | |
| 801-136 | English Composition 1 | 3 | 3 | |
| 809-166 | Intro to Ethics: Theory & App | 3 | 3 | |
| Total Hrs./Week and Total Credits | | 15 hrs. | 15 cr. | |
| Second Semester | | | | |
| <i>Grade of "C" or better for all prerequisites</i> | | | | |
| 116-114 | Recruitment & Selection | 3 | 3 | <u>116-193</u> |
| 116-116 | Employee Relations | 3 | 3 | <u>116-193</u> |
| 801-198 | Speech | 3 | 3 | |
| 804-134 | Mathematical Reasoning OR | 4 | 3 | |
| 804-189 | Introductory Statistics | 6 | | |
| 809-195 | Economics | 3 | 3 | |
| Total Hrs./Week and Total Credits | | 16-18 hrs. | 15 cr. | |
| Third Semester | | | | |
| <i>Grade of "C" or better for all prerequisites</i> | | | | |
| 116-112 | Training & Development | 3 | 3 | |
| 116-113 | Human Resource Law | 3 | 3 | <u>116-193</u> |
| 116-138 | Safety, Security and Risk | 3 | 3 | |
| 801-196 | Oral/Interpersonal Communication | 3 | 3 | |
| 809-172 | Intro to Diversity Studies | 3 | 3 | |
| Total Hrs./Week and Total Credits | | 15 hrs. | 15 cr. | |
| Fourth Semester | | | | |
| <i>Grade of "C" or better for all prerequisites</i> | | | | |
| 101-121 | Payroll Accounting | 3 | 3 | |
| 116-110 | Employee Benefits | 3 | 3 | <u>116-193</u> |
| 116-111 | Performance Mgt & Employee Rewards System | 3 | 3 | <u>116-193</u> |
| 116-115 | Human Resources Capstone | 2 | 2 | <u>116-114, 116-116, (116-110, 116-112, 116-113, 116-138 or concurrent); Co-requisite: 116-128</u> |
| 116-190 | Leadership Development | 3 | 3 | |
| 116-128 | Human Resources Internship | | 1 | <u>Program student, 116-114, 116-116, (116-110, 116-112, 116-113, 116-138 or concurrent); Co-requisite 116-115</u> |
| Total Hrs./Week and Total Credits | | 14 hrs. | 15 cr. | |

MINIMUM PROGRAM CREDITS REQUIRED = 60

Program Information

Individualized Technical Studies – 10-825-1

Associate Degree - Two Years

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

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.

Program Information

| | |
|--|------------------------|
| START DATE(S): August, January, and June | EFFECTIVE: August 2016 |
|--|------------------------|

INDIVIDUALIZED TECHNICAL STUDIES

Associate Degree

| Course Number | Course Title | Credits | Prerequisite(s)/Comments |
|---|---|---------------|------------------------------|
| First Semester | | | |
| | Technical Core Courses | 13 | |
| | Choose 6 credits from the following: | | |
| 801-136 | English Composition 1 | 3 | |
| 801-196 | Oral/Interpersonal Communication | 3 | |
| 801-197 | Technical Reporting | 3 | 801-136 with a "C" or better |
| 801-198 | Speech | 3 | |
| | Total Credits | 19 cr. | |
| Second Semester | | | |
| | Technical Core Courses | 13 | |
| | Choose 3 credits from the following | | |
| 809-122 | Intro to American Government | 3 | |
| 809-128 | Marriage & Family | 3 | |
| 809-166 | Intro to Ethics: Theory & Application | 3 | |
| 809-172 | Intro to Diversity Studies | 3 | |
| 809-195 | Economics | 3 | |
| 809-196 | Intro to Sociology | 3 | |
| 809-197 | Contemporary American Society | 3 | |
| | Total Credits | 16 cr. | |
| Third Semester | | | |
| | Technical Core Courses | 13 | |
| | Choose 3 credits from the following | | |
| 809-159 | Abnormal Psychology | 3 | |
| 809-188 | Developmental Psychology | 3 | |
| 809-198 | Intro to Psychology | 3 | |
| 809-199 | Psychology of Human Relations | 3 | |
| | Total Credits | 16 cr. | |
| Fourth Semester | | | |
| | Technical Core Courses | 10 | |
| | Choose 3 credits from the following | | |
| 804-133 | Math & Logic | 3 | |
| 804-134 | Mathematical Reasoning | 3 | |
| 804-115 | College Technical Math 1 | 5 | |
| 804-116 | College Technical Math 2 | 4 | |
| 804-189 | Introductory Statistics | 3 | |
| 806-134 | General Chemistry | 4 | |
| Choose 6 credits from any of the courses listed in semesters 1-4 | | | |
| | Total Credits | 13 cr. | |

MINIMUM PROGRAM CREDITS REQUIRED = 64

Program Information

Industrial Mechanic – 31-462-2

Technical Diploma - One Year

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

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!

Program Information

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

EFFECTIVE: June 2016

INDUSTRIAL MECHANIC

Technical Diploma

| Course Number | Course Title | Hrs./Week | Credits | Prerequisite(s)/Comments |
|--|--|----------------|---------------|---|
| <u>First Semester</u> | | | | |
| 419-116 | Basic Hydraulics | 4 | 2 | <u>Program student or instructor approval</u> |
| 419-117 | Basic Pneumatics | 4 | 2 | <u>Program student or instructor approval</u> |
| 442-120 | Related Welding- Industrial Mechanic | 4 | 2 | <u>Program student or instructor approval</u> |
| 462-111 | Mechanical Concepts | 4 | 2 | <u>Program student or instructor approval</u> |
| 462-115 | Industrial PC Applications | 4 | 2 | <u>Program student or instructor approval</u> |
| 462-119 | Industrial Mechanical Skills | 4 | 2 | <u>Program student or instructor approval</u> |
| 462-130 | Industrial Mechanic Prints and Documents | 2 | 2 | <u>Program student or instructor approval</u> |
| 625-180 | Manufacturing Skills Standards | 2 | 2 | |
| Total Hrs./Week and Total Credits | | 28 hrs. | 16 cr. | |
| <u>Second Semester</u> | | | | |
| 420-125 | Related Machine Tool Concepts | 4 | 2 | <u>Program student</u> |
| 462-118 | Industrial Electricity Principles | 5 | 3 | <u>Program student or instructor approval</u> |
| 462-120 | Centrifugal Pumps & Alignment | 6 | 3 | <u>Program student, 462-126 or concurrent, or instructor approval</u> |
| 462-121 | Repair Automated Manufacturing Equipment | 8 | 4 | <u>Program student, 462-118 or concurrent, or instructor approval</u> |
| 462-123 | Troubleshooting PLC Systems | 6 | 3 | <u>Program student, 462-121 or concurrent, or instructor approval</u> |
| 462-126 | Mechanical Alignment & Bearings | 4 | 2 | <u>Program student, 462-111, 462-119 or concurrent, or instructor approval</u> |
| Total Hrs./Week and Total Credits | | 33 hrs. | 17 cr. | |
| <u>Third Semester (8 weeks)</u> | | | | |
| 419-102 | Hydraulic System Operations | 8 | 2 | <u>Program student, 419-116 or instructor approval</u> |
| 419-118 | Pneumatic System Operations | 8 | 2 | <u>Program student, 419-117 or instructor approval</u> |
| 462-122 | Preventative and Periodic Maintenance | 4 | 1 | <u>Program student, 462-111 or instructor approval</u> |
| 462-132 | Machine Troubleshooting & Repair, Advanced | 8 | 2 | <u>Program student, 462-120, (462-123, 419-102, 419-118 or concurrent) or instructor approval</u> |
| Total Hrs./Week and Total Credits | | 28 hrs. | 7 cr. | |

MINIMUM PROGRAM CREDITS REQUIRED = 40

Program Information

Industrial Mechanical Technician – 10-462-1

Associate Degree - Two Years

Offered in Eau Claire • August and January entry dates

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!

Program Information

START DATE(S): August and January

EFFECTIVE: August 2016

INDUSTRIAL MECHANICAL TECHNICIAN

Associate Degree

| Course Number | Course Title | Hrs./Week | Credits | Prerequisite(s)/Comments |
|--|--|-----------|-----------------------|---|
| First Semester | | | | |
| 419-116 | Basic Hydraulics | 4 | 2 | <u>Program student or instructor approval</u> |
| 419-117 | Basic Pneumatics | 4 | 2 | <u>Program student or instructor approval</u> |
| 442-120 | Related Welding- Industrial Mechanic | 4 | 2 | <u>Program student or instructor approval</u> |
| 462-111 | Mechanical Concepts | 4 | 2 | <u>Program student or instructor approval</u> |
| 462-115 | Industrial PC Applications | 4 | 2 | <u>Program student or instructor approval</u> |
| 462-119 | Industrial Mechanical Skills | 4 | 2 | <u>Program student or instructor approval</u> |
| 462-130 | Industrial Mechanic Prints and Documents | 2 | 2 | <u>Program student or instructor approval</u> |
| 625-180 | Manufacturing Skills Standards | 2 | 2 | |
| Total Hrs./Week and Total Credits | | | 16 cr. | |
| Second Semester | | | | |
| 420-125 | Related Machine Tool Concepts | 4 | 2 | <u>Program student</u> |
| 462-118 | Industrial Electricity Principles | 5 | 3 | <u>Program student or instructor approval</u> |
| 462-120 | Centrifugal Pumps & Alignment | 6 | 3 | <u>Program student, 462-126 or concurrent, or instructor approval</u> |
| 462-121 | Repair Automated Manufacturing Equipment | 8 | 4 | <u>Program student, 462-118 or concurrent, or instructor approval</u> |
| 462-123 | Troubleshooting PLC Systems | 6 | 3 | <u>Program student, 462-121 or concurrent, or instructor approval</u> |
| 462-126 | Mechanical Alignment & Bearings | 4 | 2 | <u>Program student, 462-111, 462-119 or concurrent, or instructor approval</u> |
| Total Hrs./Week and Total Credits | | | 33 hrs. 17 cr. | |
| Third Semester (8 weeks) | | | | |
| 419-102 | Hydraulic System Operations | 8 | 2 | <u>Program student, 419-116, or instructor approval</u> |
| 419-118 | Pneumatic System Operations | 8 | 2 | <u>Program student, 419-117, or instructor approval</u> |
| 462-122 | Preventative and Periodic Maintenance | 4 | 1 | <u>Program student, 462-111, or instructor approval</u> |
| 462-132 | Machine Troubleshooting & Repair, Advanced | 8 | 2 | <u>Program student, 462-120, (462-123, 419-102, 419-118 or concurrent) or instructor approval</u> |
| Total Hrs./Week and Total Credits | | | 28 hrs. 7 cr. | |
| Fourth Semester | | | | |
| 462-140 | Piping Systems | 4 | 2 | <u>Program student, 462-120, or instructor approval</u> |
| 462-150 | Building System Maintenance | 4 | 2 | <u>Program student, 462-123, or instructor approval</u> |
| 801-136 | English Composition 1 | 3 | 3 | |
| 801-196 | Oral/Interpersonal Communication | 3 | 3 | |
| 804-134 | Mathematical Reasoning | 4 | 3 | |
| 809-197 | Contemporary American Society | 3 | 3 | |
| Total Hrs./Week and Total Credits | | | 21 hrs. 16 cr. | |
| Fifth Semester | | | | |
| 462-141 | Fluid Process Systems | 4 | 2 | <u>Program student, 462-120, 462-123, 462-140, or instructor approval</u> |
| 462-151 | New Technologies in Industrial Maintenance | 4 | 2 | <u>Program student, 462-120, 462-123, 462-150, or instructor approval</u> |
| 801-197 | Technical Reporting | 3 | 3 | <u>801-136 with a C or better</u> |
| 809-195 | Economics | 3 | 3 | |
| 809-199 | Psychology of Human Relations | 3 | 3 | |
| Total Hrs./Week and Total Credits | | | 17 hrs. 13 cr. | |

MINIMUM PROGRAM CREDITS REQUIRED = 69

Program Information

IT-Mobile Developer – 10-152-8

Associate Degree - Two Years

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

Description

If you enjoy working with mobile devices and are interested in the design and development of mobile applications, games, or utilities, the Information Technology Mobile 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 rapidly expanding field of mobile application development.

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

- Developing the skills required to create applications for iPhones, iPads, and Android based phones and tablets
- Scratch building applications using best practice principles including object oriented design and test driven development
- Understanding the relationship between the mobile market, cloud computing and social networking platforms
- Developing valuable workplace skills: time management, collaboration, communication, critical thinking, and environmental awareness
- Business Campus students have the option of taking courses in 3D simulation utilizing the latest game engines and 3D modeling software

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)
- CompTIA MAS+ (CompTIA Mobile App + Security (Android) or (IOS))
- MCSD (Microsoft Certified Software Developer)

Mobile application development is currently one of the fastest growing fields in Information Technology. The rapid adoption of smart phones worldwide has resulted in a significant increase in demand for mobile application developers. The Information Technology Mobile Developer program could be what you need to turn your interest in mobile computing into a lifelong career.

Program Information

| | |
|-----------------------------------|------------------------|
| START DATE(S): August and January | EFFECTIVE: August 2016 |
|-----------------------------------|------------------------|

INFORMATION TECHNOLOGY – MOBILE DEVELOPER

Associate Degree

| Course Number | Course Title | Hours/Week | Credits | Prerequisite(s)/Comments |
|--|---|----------------|---------------|--|
| First Semester | | | | |
| 152-102 | IT-Software Developer Exploration [1 st 8 weeks] | 4 | 1 | |
| 152-106 | Operating Systems [1 st 8 weeks] | 6 | 2 | Program student |
| 152-107 | Web 1 - HTML and CSS [1 st 8 weeks] | 8 | 3 | Program student |
| 152-101 | Programming Fundamentals [2 nd 8 weeks] | 8 | 3 | Program student |
| 152-132 | Database 1 [2 nd 8 weeks] | 8 | 3 | Program student |
| 804-133 | Math and Logic | 4 | 3 | |
| 801-136 | English Composition 1 | 3 | 3 | |
| Total Hrs./Week and Total Credits | | 24 hrs. | 18 cr. | |
| Second Semester | | | | |
| 152-103 | .NET Application Development [1 st 8 weeks] | 8 | 3 | 152-101 |
| 152-142 | Object Oriented Programming [1 st 8 weeks] | 8 | 3 | 152-101 |
| 152-108 | Web 2 - JavaScript [2 nd 8 weeks] | 8 | 3 | 152-101, (152-107 or concurrent) |
| 152-114 | iOS Development [2 nd 8 weeks] | 8 | 3 | 152-142 or concurrent |
| 152-129 | Java Web Programming [2 nd 8 weeks] | 8 | 3 | 152-142 or concurrent |
| 804-189 | Introductory Statistics | 6 | 3 | |
| Total Hrs./Week and Total Credits | | 26 hrs. | 18 cr. | |
| Third Semester | | | | |
| 152-161 | 3D Modeling 1 [1 st 8 weeks] OR | 8 | 3 | |
| 152-136 | Database 2 [1 st 8 weeks] | | | 152-132 |
| 152-115 | Advanced iOS Development [1 st 8 weeks] | 8 | 3 | 152-114 |
| 152-151 | Android Development [2 nd 8 weeks] | 8 | 3 | 152-129 |
| 801-196 | Oral/Interpersonal Communication | 3 | 3 | |
| 809-199 | Psychology of Human Relations | 3 | 3 | |
| Total Hrs./Week and Total Credits | | 18 hrs. | 15 cr. | |
| Fourth Semester | | | | |
| 152-159 | Web Multimedia [1 st 8 weeks] | 8 | 3 | 152-108 |
| 152-116 | Professional iOS Development [1 st 8 weeks] | 8 | 3 | 152-115 |
| 152-168 | Mobile Web Applications [1 st 8 weeks] OR | 8 | 3 | 152-159 or concurrent |
| 152-162 | 3D Game/Simulation Programming [2 nd 8 weeks] | | | 152-161 or concurrent |
| 152-182 | IT Developer Internship (128 hours) OR | | 2 | Program student, instructor approval |
| 152-166 | IT Developer Capstone [2 nd 8 weeks] | 6 | | Program student 152-126 or 152-116 or concurrent |
| 801-197 | Technical Reporting | 3 | 3 | 801-136 with C or better |
| 809-196 | Introduction to Sociology | 3 | 3 | |
| Total Hrs./Week and Total Credits | | 21 hrs. | 17 cr. | |

MINIMUM PROGRAM CREDITS REQUIRED = 68

Program Information

IT-Network Specialist – 10-150-2

Associate Degree - Two Years

Offered in Eau Claire • August and January entry dates

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!

Program Information

| | |
|-----------------------------------|------------------------|
| START DATE(S): August and January | EFFECTIVE: August 2016 |
|-----------------------------------|------------------------|

INFORMATION TECHNOLOGY - NETWORK SPECIALIST

Associate Degree

| Course Number | Course Title | Hrs./Week | Credits | Prerequisite(s)/Comments |
|--|--|----------------|---------------|---|
| First Semester | | | | |
| 150-123 | Information Technology Networking Concepts | 4 | 3 | <u>Program student</u> |
| 150-120 | Network Diagramming | 2 | 1 | <u>Program student</u> |
| 150-150 | CCNA 1: Introduction to Networks | 4 | 3 | <u>Program student</u> |
| 150-134 | Network Infrastructure Concepts | 3 | 2 | <u>Program student</u> |
| 801-136 | English Composition 1 OR | 3 | 3 | |
| 801-219 | English Composition 1 | | | |
| 804-133 | Math and Logic | 4 | 3 | |
| 809-166 | Introduction to Ethics: Theory and Application | 3 | 3 | |
| Total Hrs./Week and Total Credits | | 23 hrs. | 18 cr. | |
| Second Semester | | | | |
| 150-160 | Network Directory Services | 4 | 3 | <u>Program student, 150-123, 150-150</u> |
| 150-175 | Unix System Administration | 4 | 3 | <u>150-123, 150-150</u> |
| 150-165 | Microsoft Windows Network Administration | 4 | 3 | <u>150-123, 150-150</u> |
| 150-151 | CCNA 2: Routing and Switching Essentials | 4 | 3 | <u>150-150</u> |
| 150-143 | Computer Hardware | 6 | 4 | <u>150-123, 150-134</u> |
| Total Hrs./Week and Total Credits | | 22 hrs. | 16 cr. | |
| Third Semester | | | | |
| 150-155 | IT Management Concepts OR | 3 | 2 | <u>150-120, 150-165</u> |
| 150-182 | Network Specialist Internship (128 hours) | | | <u>Program student, or instructor approval</u> |
| 150-153 | CCNA 3: Scaling Networks | 3 | 2 | <u>150-151</u> |
| 150-180 | Advanced Network Operating Systems 1 | 4 | 3 | <u>150-151, 150-160, 150-165, 150-175, 150-143</u> |
| 150-183 | Wireless Networking | 3 | 2 | <u>150-151 (or 605-109 for Electromechanical Technology Program students)</u> |
| 150-170 | Computer Maintenance and Support | 5 | 3 | <u>150-143</u> |
| 801-196 | Oral/Interpersonal Communication | 3 | 3 | |
| 809-198 | Introduction to Psychology OR | 3 | 3 | |
| 809-251 | General Psychology | | | |
| Total Hrs./Week and Total Credits | | 23 hrs. | 18 cr. | |
| Fourth Semester | | | | |
| 150-121 | Network Design, Installation and Troubleshooting | 4 | 3 | <u>150-153, 150-180</u> |
| 150-154 | CCNA 4: Connecting Networks | 3 | 2 | <u>150-153</u> |
| 150-181 | Advanced Network Operating Systems 2 | 4 | 3 | <u>150-153, 150-180</u> |
| 150-184 | Network Security | 3 | 2 | <u>150-153, 150-180</u> |
| 809-195 | Economics | 3 | 3 | |
| 809-196 | Introduction to Sociology OR | 3 | 3 | |
| 809-271 | Introductory Sociology | | | |
| Total Hrs./Week and Total Credits | | 20 hrs. | 16 cr. | |

MINIMUM PROGRAM CREDITS REQUIRED = 68

Program Information

IT-Software Developer – 10-152-1

Associate Degree - Two Years

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

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.

Program Information

START DATE(S): August and January

EFFECTIVE: August 2016

INFORMATION TECHNOLOGY – SOFTWARE DEVELOPER

Associate Degree

| Course Number | Course Title | Hours/Week | Credits | Prerequisite(s)/Comments |
|--|--|-------------------|---------------|---|
| First Semester | | | | |
| 152-102 | IT-Software Developer Exploration [1 st 8 weeks] | 4 | 1 | |
| 152-106 | Operating Systems [1 st 8 weeks] | 6 | 2 | Program student |
| 152-107 | Web 1 - HTML and CSS [1 st 8 weeks] | 8 | 3 | Program student |
| 152-101 | Programming Fundamentals [2 nd 8 weeks] | 8 | 3 | Program student |
| 152-132 | Database 1 [2 nd 8 weeks] | 8 | 3 | Program student |
| 804-133 | Math and Logic | 4 | 3 | |
| 801-136 | English Composition 1 | 3 | 3 | |
| Total Hrs./Week and Total Credits | | 24 hrs. | 18 cr. | |
| Second Semester | | | | |
| 152-103 | .NET Application Development [1 st 8 weeks] | 8 | 3 | 152-101 |
| 152-142 | Object Oriented Programming [1 st 8 weeks] | 8 | 3 | 152-101 |
| 152-108 | Web 2 - JavaScript [2 nd 8 weeks] | 8 | 3 | 152-101, 152-107 |
| 152-114 | iOS Development [2 nd 8 weeks] | 8 | 3 | 152-142 or concurrent |
| 152-129 | Java Web Programming [2 nd 8 weeks] | 8 | 3 | 152-142 or concurrent |
| 804-189 | Introductory Statistics | 6 | 3 | |
| Total Hrs./Week and Total Credits | | 26 hrs. | 18 cr. | |
| Third Semester | | | | |
| 152-136 | Database 2 [1 st 8 weeks] | 8 | 3 | 152-132 |
| 152-159 | Web Multimedia [1 st 8 weeks] | 8 | 3 | 152-108 |
| 152-105 | .NET – ASP [2 nd 8 weeks] | 8 | 3 | 152-103 or concurrent |
| 801-196 | Oral/Interpersonal Communication | 3 | 3 | |
| 809-199 | Psychology of Human Relations | 3 | 3 | |
| Total Hrs./Week and Total Credits | | 18 hrs. | 15 cr. | |
| Fourth Semester | | | | |
| 152-112 | Business Intelligence [1 st 8 weeks] | 8 | 3 | 152-132 |
| 152-126 | Agile Programming with Design Patterns [1 st 8 weeks] | 8 | 3 | 152-129 |
| 152-164 | Database-Driven Web Design/Dev [2 nd 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 [2 nd 8 weeks] | 6 | 2 | Program student, 152-126 or 152-116 or concurrent |
| 801-197 | Technical Reporting | 3 | 3 | 801-136 with a C or better |
| 809-196 | Introduction to Sociology | 3 | 3 | |
| Total Hrs./Week and Total Credits | | 21-26 hrs. | 17 cr. | |

MINIMUM PROGRAM CREDITS REQUIRED = 68

Program Information

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

Associate Degree - Two Years

Offered in Eau Claire • August entry date

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!

Program Information

| | |
|-----------------------|------------------------|
| START DATE(S): August | EFFECTIVE: August 2016 |
|-----------------------|------------------------|

LANDSCAPE, PLANT & TURF MANAGEMENT

Associate Degree

| Course Number | Course Title | Hrs./Week | Credits | Prerequisite(s)/Comments |
|--|--|----------------|---------------|---|
| First Semester | | | | |
| 001-100 | Introduction to Horticulture (T, L) | 4 | 3 | Fall only, Program or pre-program student |
| 001-116 | Landscape Plants (T, L) | 4 | 3 | Fall only, Program or pre-program student |
| 001-120 | Horticulture Soils (T, L) | 4 | 3 | Fall only, Program or pre-program student |
| 102-131 | Introduction to Business (T) | 3 | 3 | |
| 804-134 | Mathematical Reasoning | 4 | 3 | |
| Total Hrs./Week and Total Credits | | 18 hrs. | 15 cr. | |
| Second Semester | | | | |
| 001-125 | Horticulture Equipment & Safety (T) [1 st 8 weeks] | 6 | 2 | Spring only, Program or pre-program student |
| 001-108 | Business Apps for the Green Industry (T) [2 nd 8 weeks] | 4 | 2 | Spring only, Program or pre-program student |
| 001-103 | Turf Management and Irrigation (T, L) | 4 | 2 | Spring only, Program or pre-program student |
| 806-134 | General Chemistry (T, L) | 5 | 4 | |
| 809-172 | Intro to Diversity Studies (T) | 3 | 3 | |
| 801-136 | English Composition 1 (T) | 3 | 3 | |
| Total Hrs./Week and Total Credits | | 18 hrs. | 16 cr. | |
| Third Semester (Summer) | | | | |
| 001-109 | Horticulture Internship (weeks 1-8) | 36 | 3 | Program student; 001-100 |
| Total Hrs./Week and Total Credits | | 36 hrs. | 3 cr. | |
| Fourth Semester | | | | |
| 001-102 | Landscape Design and Construction (L) | 4 | 2 | Fall only, Program or pre-program student |
| 001-110 | Integrated Plant/Pest Management (T, L) [1 st 8 weeks] | 3 | 2 | Fall only, Program or pre-program student |
| 001-111 | Sustainable Land Use Management (T, L) | 4 | 3 | Fall only, Program or pre-program student |
| 001-112 | Interior Plants and Landscaping (T, L) [2 nd 8 weeks] | 3 | 2 | Fall only, Program or pre-program student |
| 809-195 | Economics (T) | 3 | 3 | |
| 809-199 | Psychology of Human Relations (T) OR | | | |
| 809-198 | Introduction to Psychology (T) | 3 | 3 | |
| Total Hrs./Week and Total Credits | | 20 hrs. | 15 cr. | |
| Fifth Semester | | | | |
| 001-104 | Greenhouse Management (L) | 4 | 2 | Spring only, Program or pre-program student |
| 001-115 | Vegetable and Fruit Production (L) | 4 | 2 | Spring only, Program or pre-program student |
| 001-113 | Pesticide and Fertilizer Applications (T, L) | 4 | 3 | Spring only, Program or pre-program student |
| 001-114 | Entrepreneurship for the Green Industry (T) [1 st 8 weeks] | 4 | 2 | Spring only, Program or pre-program student |
| 802-103 | Spanish for the Workplace (T) [1 st 8 weeks] | 4 | 2 | |
| 196-191 | Supervision (T) [2 nd 8 weeks] | 6 | 3 | |
| 801-196 | Oral/Interpersonal Communication (T) | 3 | 3 | |
| Total Hrs./Week and Total Credits | | 22 hrs. | 17 cr. | |
| 458-306 | CDL License Training | | 3 | Does not count toward graduation requirements |

MINIMUM PROGRAM CREDITS REQUIRED = 66

L = Lab

T = Theory/Lecture

Program Information

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

Liberal Arts Transfer - Two Years

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

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.

Program Information

LIBERAL ARTS-ASSOCIATE OF SCIENCE DEGREE REQUIREMENTS

A minimum of 64 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 |

| HUMANITIES (9 credits minimum) | Credits |
|---|----------------|
| 801-240 Introduction to Creative Writing | 3 |
| 801-243 American Literature to 1865 | 3 |
| 801-239 American Literature Since 1865 | 3 |
| 803-211 U.S. History to 1877 | 3 |
| 803-212 U.S. History 1877-Present | 3 |
| 803-214 Native American History | 3 |
| 809-225 Ethics | 3 |
| 815-201 Art Appreciation | 3 |
| 801-204 Introduction to Literature | 3 |

| SOCIAL SCIENCE (6 credits minimum) | Credits |
|---|----------------|
| 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 |

| 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 |
|--|----------------|
| 804-211 Quantitative Reasoning | 4 |
| 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 | |
| 804-218 Algebra Success** | 3 |

| 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 | |
| 806-225 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 |
| 806-286 Environmental Science | 4 |

| FOREIGN LANGUAGE (4 credits minimum) | Credits |
|---|----------------|
| 802-211 Spanish 1 | 4 |
| 802-212 Spanish 2 | 4 |

| ELECTIVES (7-12 credits minimum; any excess credits from the previous areas will also count toward elective credit) | Credits |
|--|----------------|
| 890-205 Academic Success Strategies | 1 |
| 890-298 CPL Success Strategies | 1 |

*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.

2.0 MINIMUM PROGRAM CUMULATIVE GPA REQUIRED FOR GRADUATION

Program Information

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, and June entry dates

Description

If you are a hands-on person with good mechanical skills who enjoys building or crafting items, the Machine Tooling Technics program could be a good match for you.

The Machine Tool program offers training for employment as a Computer Numerical Control (CNC) Machinist, CNC Machine Programmer, Mold Maker/or Tool and Die maker. You will work on state-of-the art computerized machine tools and gain real world experience that can be used in today's high-tech manufacturing facilities.

This is the program for students seeking an interesting and challenging career in a clean, high-tech work environment, with job stability; and a career that rewards growth and experience. If you are interested in this program, contact the program director at 715-874-4642 to schedule a tour of the facilities. You will learn:

- How to operate industrial size manual machine tools, engine lathes, milling machines, and grinding machines
- The skill to hold precision tolerances with machine tools
- The processes of chip removal and material forming
- The operation, setup, and programming of industrial Computerized Numerical Control (CNC) machine tools, milling machines, machining centers, and turning centers
- Computer-Aided Design/Computer-Aided Manufacturing (CAD/CAM) to manufacture parts

Program Information

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

EFFECTIVE: August 2016

MACHINE TOOLING TECHNICIS

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 OR | 10 | 5 | Program student; Co-requisite 420-300, 420-321, 420-373 |
| 420-323 | Manual Milling Machine Setup AND | 4 | 2 | Instructor approval |
| 420-324 | Manual Milling Machine Operation | 6 | 3 | 420-323 or concurrent; Co-requisite 420-300, 420-321, 420-373 |
| 804-360 | Math for Technical Trades [1 st 8 weeks] | 8 | 2 | |
| 421-385 | MT Blueprint Reading and GD&T [2 nd 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 hrs. | 16 cr. | |
| Second Semester | | | | |
| 420-310 | CNC Mill Programming Theory | 2 | 1 | Program student; 420-321, 420-322, (or 420-323 and 420-324); 804-360 or concurrent; Co-requisite 420-325 |
| 420-341 | Materials for Machinists | 4 | 2 | 420-321, 420-322 |
| 420-325 | Basic CNC Mill Programming | 10 | 5 | Program student; 420-321, 420-322, (or 420-323 and 420-324); Co-requisite 420-326 |
| 420-326 | Advanced CNC Mill & Grinding Processes | 10 | 5 | 420-321, 420-322, (or 420-323 and 420-324); Co-requisite 420-325 |
| 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 hrs. | 17 cr. | |
| Third Semester | | | | |
| 420-330 | Basic CNC Lathe Programming | 10 | 5 | 420-321, 420-322; Co-requisite 420-331 |
| 420-331 | Advanced CNC Turning Processes | 10 | 5 | Program student; 420-321, 420-322, (or 420-323 and 420-324); Co-requisite 420-330 |
| 420-367 | 3-D CAM | 6 | 3 | 420-380 |
| 420-353 | CAM for CNC Lathe | 4 | 2 | 420-380; Co-requisite 420-330 |
| 420-309 | CNC Lathe Programming Theory | 2 | 1 | Program student; 420-321, 420-322, (or 420-323 and 420-324), 804-360; Co-requisite 420-330 |
| 420-379 | Job Skills for Manufacturing OR | 3 | 1 | Program student |
| 801-356 | Applied Job/Interpersonal Communication | 2 | | |
| Total Hrs./Week and Total Credits | | 34-35 hrs. | 17 cr. | |
| Fourth Semester | | | | |
| 420-351 | Advanced CAD/CAM | 6 | 3 | Program student; 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 | Program student; 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 | | Program student; 420-326, 420-331 |
| Total Hrs./Week and Total Credits | | 32 hrs. | 16 cr. | |

MINIMUM PROGRAM CREDITS REQUIRED = 66

Program Information

Manufacturing Engineering Technologist – 10-623-8

Associate Degree - Two Years

Offered in Eau Claire • August entry date

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.

Program Information

START DATE(S): August

EFFECTIVE: August 2016

MANUFACTURING ENGINEERING TECHNOLOGIST

Associate Degree

| Course Number | Course Title | Hrs./Week | Credits | Prerequisite(s)/Comments |
|--|-------------------------------------|-------------------|------------------|--------------------------|
| <u>First Semester</u> | | | | |
| 606-185 | Blueprint Reading | 2 | 1 | |
| 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 OR | 5 | 4 | |
| 806-245 | Principles of General Chemistry 1 | 7 | 5 | |
| Total Credits | | 19-21 hrs. | 16-17 cr. | |
| <u>Second Semester</u> | | | | |
| 605-116 | Engineering Electronics OR | 5 | 3 | |
| 420-190 | Machine Tool Processes OR | 3 | | Program student |
| 442-120 | Related Welding-Industrial Mechanic | 4 | 2 | Program student |
| 606-161 | CAD, Basic | 4 | 3 | |
| 801-196 | Oral/Interpersonal Communication | 3 | 3 | |
| 804-116 | College Technical Math 2 | 4 | 4 | 804-115 |
| 806-154 | General Physics I | 5 | 4 | 804-115 |
| Total Hrs./Week and Total Credits | | 19-21 hrs. | 16-17 cr. | |
| <u>Third Semester</u> | | | | |
| 606-130 | Solid Modeling 1 | 5 | 3 | |
| 623-107 | Engineering Materials | 4 | 3 | Program student |
| 623-111 | Measurement for Engineering | 2 | 1 | |
| 623-130 | Lean Fundamentals | 2 | 2 | |
| 623-154 | Engineering Economy | 3 | 3 | 804-116 |
| 804-189 | Introductory Statistics | 6 | 3 | |
| 809-198 | Introduction to Psychology | 3 | 3 | |
| Total Hrs./Week and Total Credits | | 25 hrs. | 18 cr. | |
| <u>Fourth Semester</u> | | | | |
| 606-102 | Principles of Design | 3 | 2 | |
| 606-104 | Geometric Dimension & Tolerancing | 4 | 3 | |
| 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 | | 21 hrs. | 17 cr. | |

MINIMUM PROGRAM CREDITS REQUIRED = 67-69

Program Information

Marketing – 10-104-3

Associate Degree - Two Years

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

Program Information

START DATE(S): August and January

EFFECTIVE: August 2016

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 | Digital Marketing | 4 | 3 | |
| 104-105 | Marketing Research | 4 | 3 | <u>104-102</u> |
| 104-125 | Advertising | 3 | 3 | <u>104-102</u> |
| 801-196 | Oral/Interpersonal Communication | 3 | 3 | |
| 804-134 | Mathematical Reasoning OR | 4 | 3 | |
| 804-189 | Introductory Statistics | 6 | | |
| Total Hrs./Week and Total Credits | | 18-20 hrs. | 15 cr. | |
| Third Semester | | | | |
| 104-109 | Social Media Marketing Strategy | 2 | 2 | <u>104-102, 104-125</u> |
| 104-161 | Event Marketing | 4 | 4 | <u>104-102, 104-104, 104-125</u> |
| 104-191 | Service Excellence | 3 | 3 | <u>104-104</u> |
| 801-198 | Speech | 3 | 3 | |
| 809-172 | Intro to Diversity Studies OR | 3 | 3 | |
| 809-196 | Introduction to Sociology OR | | | |
| 809-166 | Intro to Ethics: Theory & App | | | |
| Total Hrs./Week and Total Credits | | 15 hrs. | 15 cr. | |
| Fourth Semester | | | | |
| 101-105 | Introduction to Accounting OR | 3 | 3 | |
| 101-111 | Accounting 1 | 5 | 4 | |
| 102-150 | Global Business OR | 3 | 3 | |
| 104-140 | Business to Business Selling | | | <u>104-104</u> |
| 104-169 | Marketing Internship (72 hours) | | 1 | <u>Program Student, 104-161; Co-requisite: 104-182</u> |
| 104-182 | Personal Branding | 2 | 2 | <u>Program Student; 104-161; Co-requisite: 104-169</u> |
| 104-183 | Marketing Strategy | 3 | 3 | <u>104-102, 104-105, 104-125</u> |
| 809-195 | Economics | 3 | 3 | |
| Total Hrs./Week and Total Credits | | 14-16 hrs. | 15-16 cr. | |

MINIMUM PROGRAM CREDITS REQUIRED = 60

Program Information

Medical Assistant – 31-509-1

Technical Diploma - One Year

Offered in Eau Claire • August entry date

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!

Program Information

START DATE(S): August

EFFECTIVE: August 2016

MEDICAL ASSISTANT Technical Diploma

| Course Number | Course Title | Hrs./Week | Credits | Prerequisite(s)/Comments |
|--|---|----------------|---------------|--|
| First Semester | | | | |
| 501-120 | Medical Office Computing (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) |
| 509-303 | Medical Assistant Laboratory Procedures 1 (T, L) | 4 | 2 | Program student, Corequisite: 509-304 |
| 509-304 | Medical Assistant Clinical Procedures 1 (T, L) | 8 | 4 | Program student. (501-101 and 509-302 or concurrent), Corequisite: 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 or pre-program student. (501-120 or concurrent) |
| 509-305 | Medical Assistant Laboratory Procedures 2 (T, L) [Weeks 1-8] | 8 | 2 | Program student; 501-101, 501-120, 509-302, 509-303, 509-304, 801-136, (509-301, 509-307, 509-309 or concurrent); Corequisite: 509-306, 509-310 |
| 509-306 | Medical Assistant Clinical Procedures 2 (T, L) [Weeks 1-10] | 10 | 3 | Program student; 501-101, 501-120, 509-302, 509-303, 509-304, 801-136, (509-301, 509-307, 509-309 or concurrent); Corequisite: 509-305, 509-310 |
| 509-307 | Medical Office Insurance and Finance (T) [Weeks 1-10] | 6 | 2 | Program or pre-program student, 501-101, 509-302, (501-120 or concurrent) |
| 501-308 | Pharmacology for Allied Health (T) [Weeks 1-10] | 6 | 2 | Program student, 501-101, 501-120, 509-302, 509-303, 509-304, 801-136, (509-301, 509-307, 509-309 or concurrent), Corequisite: 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, 501-120, 501-101, 509-302, 509-303, 509-304, 801-136, (509-301, 509-309, 501-308, 509-305, 509-306, 509-307 or concurrent) |
| 531-350 | First Aid CPR [Weeks 1-8] | 3 | 1 | Certification must be current through Practicum 509-310, DOES NOT COUNT TOWARD GRADUATION CREDIT |
| Total Hrs./Week and Total Credits | | 38 hrs. | 16 cr. | |

MINIMUM PROGRAM CREDITS REQUIRED = 33

C = Clinical L = Lab T = Theory

Program Information

Medical Laboratory Technician – 10-513-1

Associate Degree - Two Years

Offered in Eau Claire • August entry date

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:

- Collecting and processing biologic specimens for analysis
- Performing analytical tests on blood, body fluids, and tissues
- Recognizing pre-analytical and analytical variables in laboratory testing
- Monitoring quality control
- Performing preventative and corrective maintenance on laboratory instruments
- Maintaining 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).

Program Information

| | |
|-----------------------|------------------------|
| START DATE(S): August | EFFECTIVE: August 2016 |
|-----------------------|------------------------|

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) [2nd 8 weeks] | 6 | 2 | |
| 513-113 | QA Lab Math (T) [1st 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 |
| Total Hrs./Week and Total Credits | | 22-24 hrs. | 17 cr. | |
| Second Semester | | | | |
| 513-114 | Urinalysis (T, L) | 3 | 2 | 513-110, 513-113 |
| 513-120 | Basic Hematology (T, L) | 5 | 3 | 513-110, 513-111, 513-113, 513-115; Co-requisite: 513-121 |
| 513-121 | Coagulation (L) | 2 | 1 | 513-110, 513-111, 513-113, 513-115; Co-requisite: 513-120 |
| 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 Hrs./Week and Total Credits | | 24 hrs. | 17 cr. | |
| Third Semester (Summer) | | | | |
| 801-196 | Oral/Interpersonal Communication (T) OR | 6 | 3 | |
| 801-197 | Technical Reporting (T) OR | | | 801-136 with a minimum grade of "C" |
| 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 Hrs./Week and Total Credits | | 12 hrs. | 6 cr. | |
| Fourth Semester | | | | |
| 513-131 | Clinical Chemistry 1 (T, L) | 4 | 3 | 513-114, 806-186, 806-177 |
| 513-132 | Clinical Chemistry 2 (T, L) | 3 | 2 | Co-requisite: 513-131 |
| 513-133 | Clinical Microbiology (T, L) | 6 | 4 | Program student; 806-197; Co-requisite: 513-140 |
| 513-140 | Advanced Microbiology (T, L) | 3 | 2 | 806-197; Co-requisite: 513-133 |
| 513-145 | MLT Seminar (T) | 3 | 3 | Program student, third semester status, Fall only |
| Total Hrs./Week and Total Credits | | 19 hrs. | 14 cr. | |
| Fifth Semester | | | | |
| 513-130 | Advanced Hematology (C) [20 weeks] | 6 | 2 | Relocation likely 513-120 and 513-121; Co-requisite: 513-151 |
| 513-151 | Clinical Experience 1 (C) [192 hrs.] | 12 | 3 | Program student; 513-131, 513-132, 513-145; Co-requisites: 513-130, 513-152, 513-144 |
| 513-152 | Clinical Experience 2 (C) [256 hrs.] | 16 | 4 | Program student; 513-131, 513-132, 513-145; Co-requisites: 513-130, 513-151, 513-144 |
| 513-144 | Clinical Experience 3 (C) [256 hrs.] | 16 | 4 | Program student; Co-requisites: 513-130, 513-151, 513-152 |
| Total Hrs./Week and Total Credits | | TBD | 13 cr. | |

MINIMUM PROGRAM CREDITS REQUIRED = 67

C = Clinical L = Lab T = Theory/Lecture

Program Information

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

Technical Diploma - One Year

Offered in Eau Claire • August entry date

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!

Program Information

| | |
|-----------------------|------------------------|
| START DATE(S): August | EFFECTIVE: August 2016 |
|-----------------------|------------------------|

MOTORCYCLE, MARINE & 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 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 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 Credits | | 6 cr. | |

MINIMUM PROGRAM CREDITS REQUIRED = 37

Program Information

Nail Technician – 30-502-4

Technical Diploma - Two Years

Offered in Eau Claire • January entry date

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.

Program Information

| | |
|------------------------|-------------------------|
| START DATE(S): January | EFFECTIVE: January 2017 |
|------------------------|-------------------------|

NAIL TECHNICIAN *Technical Diploma*

| Course Number | Course Title | Hrs./Week | Credits | Prerequisite(s)/Comments |
|---------------|---|-------------------|--------------|---------------------------------------|
| | First Term | | | |
| 502-320 | Nail Technology <i>[January-March]</i> | 8 | 2 | <u>Program student</u> |
| 806-323 | Salon Science 1 <i>[January-March]</i> | 4 | 1 | <u>Program student</u> |
| 502-331 | Advanced Nail Technology <i>[March-May]</i> | 8 | 2 | <u>502-320 or concurrent</u> |
| 502-332 | Nail Salon Services <i>[March-May]</i> | 16 | 4 | <u>502-331, 806-323 or concurrent</u> |
| | Total Hrs./Week and Total Credits | 12-24 hrs. | 9 cr. | |

MINIMUM PROGRAM CREDITS REQUIRED = 9

Program Information

Nano Engineering Technology – 10-635-1

Associate Degree - Two Years

Offered in Eau Claire • August entry date

Description

The Nano Engineering Technology program provides training for those seeking a career in micro or nano systems engineering, manufacturing and scientific laboratory applications, or micro manufacturing in electronics or thin film processing.

The program provides instruction for non-medical laboratory workers with hands-on training to:

- Apply hands on fundamental laboratory procedures and practices
- Design and produce micro and nano scale products
- Analyze materials using an array of equipment
- Analyze and troubleshoot micro and nano level processes
- Monitor production processes with an emphasis on safety and quality assurance

Coursework includes biotechnology, chemistry, physics, and nanoscience. You will design, produce, and analyze molecular level applications as they have transitioned from research to consumer products. You will use instrumentation, micro and nano fabrication processes, statistics, communication, math, manufacturing processes, 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 engineering technology.

This program is designed for workforce entry as Nano Engineering Technologists and has been aligned with four-year degree pathways to applied science, engineering technology and material science.

Program Information

| | |
|-----------------------|------------------------|
| START DATE(S): August | EFFECTIVE: August 2016 |
|-----------------------|------------------------|

NANO ENGINEERING TECHNOLOGY

Associate Degree

| Course Number | Course Title | Hrs./Week | Credits | Prerequisite(s)/Comments |
|--|------------------------------------|-------------------|------------------|--|
| First Semester | | | | |
| 606-185 | Blueprint Reading | 2 | 1 | |
| 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 OR | 5 | 4 | |
| 806-245 | Principles of General Chemistry 1 | 7 | 5 | |
| Total Hrs./Week and Total Credits | | 19-21 hrs. | 16-17 cr. | |
| Second Semester | | | | |
| 605-116 | Engineering Electronics | 5 | 3 | |
| 606-161 | CAD, Basic | 4 | 3 | |
| 801-196 | Oral/Interpersonal Communication | 3 | 3 | |
| 804-116 | College Technical Math 2 | 4 | 4 | 804-115 |
| 806-154 | General Physics I | 5 | 4 | 804-115 |
| Total Hrs./Week and Total Credits | | 21 hrs. | 17 cr. | |
| Third Semester | | | | |
| 623-107 | Engineering Materials | 4 | 3 | Program student |
| 635-100 | Fundamentals of Nanoscience | 4 | 3 | Program or pre-program student; 806-134 or concurrent |
| 635-118 | Intro to Biotechnology | 4 | 3 | Program student, 623-108 |
| 635-119 | Introduction to MEMS | 5 | 3 | |
| 804-189 | Introductory Statistics | 6 | 3 | |
| 809-198 | Intro to Psychology | 3 | 3 | |
| Total Hrs./Week and Total Credits | | 26 hrs. | 18 cr. | |
| Fourth Semester | | | | |
| 625-110 | Manufacturing & Quality Assurance | 3 | 3 | 804-189 |
| 635-103 | Lab Science Instrumentation | 3 | 2 | |
| 635-112 | Micro & Nano Fabrication Lab | 4 | 2 | |
| 635-114 | Biotechnology Lab | 4 | 2 | |
| 809-196 | Intro to Sociology | 3 | 3 | |
| 102-112 | Principles of Management OR | 3 | 3 | |
| 102-188 | Project Management OR | | | |
| 623-114 | Industry Practicum (192 hours) | 216 | | Program student |
| Total Hrs./Week and Total Credits | | 20 hrs. | 15 cr. | |

MINIMUM PROGRAM CREDITS REQUIRED = 66

Program Information

Nursing – 10-543-1

Associate Degree - Two Years

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

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>

Program Information

START DATE(S): August and January

EFFECTIVE: August 2016

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 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, (543-107, 809-188 or concurrent) |
| 543-106 | Nursing Health Promotion (T) | 3 | 3 | Program student, 543-101, 543-102, 543-103, 543-104, 806-177, (543-108, 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, (543-105 or concurrent) |
| 543-108 | Nsg: Introduction to Clinical Care Management (C), [8 weeks] | 12 | 2 | Program student, 543-101, 543-102, 543-103, 543-104, (543-106, 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 I (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, (543-109, 543-110, 543-112, 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), (543-113 or concurrent) |
| 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), (543-113, 543-114, 543-115 or concurrent) |
| 809-196 | Introduction to Sociology (T) OR | 3 | 3 | |
| 809-172 | Intro to Diversity Studies (T) OR | | | |
| 809-197 | Contemporary American Society (T) | | | |
| | Elective | | 2 | |
| Total Credits | | | 15 cr. | |
| Suggested Electives | | | | |
| 543-121 | Introduction to Critical Care Nursing (T, L) | 4 | 3 | Spring only; Program or Certificate student, 543-116 or concurrent |
| 543-166 | Introduction to Emergency Department Nursing (T, L) | 4 | 3 | Fall only; Program or Certificate student, 543-116 or concurrent |

MINIMUM PROGRAM CREDITS REQUIRED = 70

C = Clinical L = Lab T = Theory/Lecture

*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.

Program Information

Nursing Assistant – 30-543-1

Technical Diploma – Less Than One Year

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

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, such as:

- 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.

Program Information

| | |
|--|------------------------|
| START DATE(S): August, January, and June | EFFECTIVE: August 2016 |
|--|------------------------|

NURSING ASSISTANT
Technical Diploma

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

MINIMUM PROGRAM CREDITS REQUIRED = 3

Program Information

Organizational Leadership – 10-196-1

Associate Degree - Two Years

Offered Online • August, January and June entry dates

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, report writing, process improvement, project management, legal issues and managing for quality.

Program Information

| | |
|--|------------------------|
| START DATE(S): August, January, and June | EFFECTIVE: August 2016 |
|--|------------------------|

ORGANIZATIONAL LEADERSHIP Associate Degree

| Course Number | Course Title | Hrs./Week | Credits | Prerequisite(s)/Comments |
|--|--|-----------|---------------|---|
| First Semester | | | | |
| 890-115 | Online Success Strategies <i>[1st 8 weeks]</i> | 2 | 1 | |
| 196-163 | Personal Skills for Leaders <i>[1st 8 weeks]</i> | 6 | 3 | |
| 801-136 | English Composition 1 <i>[1st 8 weeks]</i> | 6 | 3 | |
| 102-133 | Leadership for Business Excellence <i>[2nd 8 weeks]</i> | 6 | 3 | |
| 116-193 | Introduction to Human Resources <i>[2nd 8 weeks]</i> | 6 | 3 | |
| 809-198 | Introduction to Psychology <i>[2nd 8 weeks]</i> | 6 | 3 | |
| Total Hrs./Week and Total Credits | | | cr. 16 | |
| Second Semester | | | | |
| 102-113 | Business Ethics <i>[1st 8 weeks]</i> | 6 | 3 | |
| 801-196 | Oral/Interpersonal Communication <i>[1st 8 weeks]</i> | 6 | 3 | |
| 196-155 | Communication in Leadership <i>[2nd 8 weeks]</i> | 6 | 3 | |
| 196-142 | Leading Change <i>[2nd 8 weeks]</i> | 6 | 3 | |
| 804-134 | Mathematical Reasoning <i>[16 weeks]</i> OR | 4 | 3 | |
| 804-189 | Introductory Statistics <i>[2nd 8 weeks]</i> | 12 | | |
| Total Hrs./Week and Total Credits | | | cr. 15 | |
| Third Semester | | | | |
| 102-188 | Project Management <i>[1st 8 weeks]</i> | 6 | 3 | |
| 196-160 | Employee Hiring & Development <i>[1st 8 weeks]</i> | 6 | 3 | |
| 809-196 | Introduction to Sociology <i>[1st 8 weeks]</i> | 6 | 3 | |
| 196-168 | Organizational Development <i>[2nd 8 weeks]</i> | 6 | 3 | |
| 809-172 | Introduction to Diversity Studies <i>[2nd 8 weeks]</i> | 6 | 3 | |
| Total Hrs./Week and Total Credits | | | cr. 15 | |
| Fourth Semester | | | | |
| 196-129 | Trends in Leadership <i>[1st 8 weeks]</i> | 6 | 3 | |
| 196-180 | Process Management <i>[1st 8 weeks]</i> | 6 | 3 | |
| 809-195 | Economics <i>[1st 8 weeks]</i> | 6 | 3 | |
| 101-172 | Business Finance <i>[2nd 8 weeks]</i> | 6 | 3 | |
| 196-167 | Leadership Capstone <i>[2nd 8 weeks]</i> | 4 | 2 | Program student; <i>Students registering for this course must have successfully completed all previous courses</i> |
| Total Hrs./Week and Total Credits | | | cr. 14 | |

MINIMUM PROGRAM CREDITS REQUIRED = 60

Program Information

Paralegal – 10-110-1

Associate Degree - Two Years

Offered in Eau Claire • August entry date

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.

Program Information

START DATE(S): August

EFFECTIVE: August 2016

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 OR | 3 | 3 | |
| 809-197 | Contemporary American Society | | | |
| 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 | | | | |
| <i>Grade of "C" or better for all prerequisites</i> | | | | |
| 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 | | | | |
| <i>Grade of "C" or better for all prerequisites</i> | | | | |
| *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 | 6 | 3 | |
| 809-128 | Marriage and Family OR | 3 | 3 | |
| 809-159 | Abnormal Psychology | | | 809-198 |
| Total Hrs./Week and Total Credits | | 21 hrs. | 18 cr. | |
| Fourth Semester | | | | |
| <i>Grade of "C" or better for all prerequisites</i> | | | | |
| 101-105 | Intro to Accounting | 3 | 3 | |
| *110-107 | Legal Aspects of Business Organizations | 3 | 3 | Spring only, 110-103 |
| *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, 110-103, 110-105 (110-114 or 110-168) |
| *110-143 | Paralegal Field Study, (144 hrs independent study) | | | 110-101, 110-103, 110-105 (110-114 or 110-168) |
| 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

Program Information

Paramedic Technician – 10-531-1

Associate Degree - Two Years

Offered in Eau Claire • January entry date

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!

Program Information

START DATE(S): January

EFFECTIVE: January 2017

PARAMEDIC TECHNICIAN

Associate Degree

| Course Number | Course Title | Hrs./Week | Credits | Prerequisite(s)/Comments |
|--|---|----------------|---------------|--|
| First Semester | | | | |
| 531-180 | Intro to Advanced Pre-hospital Care (T, L) | 7 | 4 | <u>WI EMT-Basic License, Current Healthcare Provider CPR</u> |
| 801-136 | English Composition (T) | 3 | 3 | |
| 801-196 | Oral/Interpersonal Communication (T) | 3 | 3 | |
| 806-177 | General Anatomy and Physiology (T, L) | 5 | 4 | |
| 809-198 | Introduction to Psychology (T) | 3 | 3 | |
| Total Hrs./Week and Total Credits | | 21 hrs. | 17 cr. | |
| Second Semester (Summer) | | | | |
| 806-179 | Advanced Anatomy and Physiology (T, L) | 5 | 4 | <u>806-177</u> |
| 531-911 | EMS Fundamental | 2 | 2 | <u>Program student</u> |
| 531-912 | Paramedic Medical Principles | 4 | 4 | <u>Program student; 531-911 or concurrent</u> |
| Total Hrs./Week and Total Credits | | 11 hrs. | 10 cr. | |
| Third Semester | | | | |
| 531-913 | Advanced Patient Assessment Principles (T, L) | 4 | 3 | <u>Program student; 531-912 or concurrent</u> |
| 531-914 | Advanced Pre-hospital Pharmacology (T, L) | 4 | 3 | <u>Program student; 531-913 or concurrent</u> |
| 531-915 | Paramedic Respiratory Management (T, L) | 3 | 2 | <u>Program student; 531-914 or concurrent</u> |
| 531-916 | Paramedic Cardiology (T, L) | 5 | 4 | <u>Program student; 531-915 or concurrent</u> |
| 531-925 | Paramedic Clinical/Field 1A (128 hours) | 8 | 2 | <u>Program student; 531-916 or concurrent</u> |
| 531-918 | Advanced Emergency Resuscitation (L) | 2 | 1 | <u>Program student</u> |
| 809-188 | Developmental Psychology | 3 | 3 | |
| Total Hrs./Week and Total Credits | | 21 hrs. | 18 cr. | |
| Fourth Semester | | | | |
| 531-926 | Paramedic Clinical/Field 1B (64 hours) | 4 | 1 | <u>Program student; 531-926 or concurrent</u> |
| 531-919 | Paramedic Medical Emergencies (T) | 4 | 4 | <u>Program student</u> |
| 531-920 | Paramedic Trauma (T, L) | 4 | 3 | <u>Program student; 531-919 or concurrent</u> |
| 531-921 | Special Patient Populations (T, L) | 4 | 3 | <u>Program student; 531-920 or concurrent</u> |
| 806-197 | Microbiology (T, L) | 5 | 4 | <u>806-177</u> |
| 809-172 | Intro to Diversity Studies | 3 | 3 | |
| Total Hrs./Week and Total Credits | | 20 hrs. | 18 cr. | |
| Fifth Semester (Summer) | | | | |
| 531-922 | EMS Operations (T) | 1 | 1 | <u>Program student; 531-921 or concurrent</u> |
| 531-923 | Paramedic Capstone (T, L) | 2 | 1 | <u>Program student; 531-921 or concurrent</u> |
| 531-924 | Paramedic Clinical/Field 2 (256 hours) | 33 | 4 | <u>Program student</u> |
| Total Hrs./Week and Total Credits | | 36 hrs. | 6 cr. | |

MINIMUM PROGRAM CREDITS REQUIRED = 69

L = Lab T = Theory

Program Information

Pharmacy Technician – 31-536-1

Technical Diploma - One Year

Offered in Eau Claire • August entry date

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!

Program Information

START DATE(S): August

EFFECTIVE: August 2016

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

C = Clinical L = Lab T = Theory/Lecture

Program Information

Physical Therapist Assistant – 10-524-1

Associate Degree - Two Years

Offered in Eau Claire • August entry date

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).

Program Information

START DATE(S): August

EFFECTIVE: August 2016

PHYSICAL THERAPIST ASSISTANT

Associate 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, 524-140, |
| 524-139 | PTA Patient Interventions (T, L) | 6 | 4 | Program student, Co-requisites: 524-140, 524-156 |
| 524-140 | PTA Professional Issues 1 (L) | 2 | 2 | Program student, Co-requisites: 524-156 |
| 801-136 | English Composition 1 (T) | 3 | 3 | |
| 806-177 | General Anatomy and Physiology (T, L) | 5 | 4 | High School Chemistry or 836-133 (pre or concurrent) with a "C" or better |
| Total Hrs./Week and Total Credits | | 22 hrs. | 17 cr. | |
| Second Semester | | | | |
| 524-157 | PTA Applied Kinesiology 2 (T, L) | 4 | 3 | 524-156, 524-139, 524-140, 806-177, Co-requisites: 524-142, 524-143 |
| 524-142 | PTA Therapeutic Exercise (T, L) | 5 | 3 | Co-requisites: 524-143, 524-157 |
| 524-143 | PTA Therapeutic Modalities (T, L) | 6 | 4 | Co-requisites: 524-142, 524-157 |
| 801-196 | Oral/Interpersonal Communication (T) | 3 | 3 | |
| OR | | | | |
| 801-198 | Speech (T) | | | |
| 809-198 | Introduction to Psychology (T) OR | 3 | 3 | |
| 809-251 | General Psychology (T) | | | |
| Total Hrs./Week and Total Credits | | 21 hrs. | 16 cr. | |
| Third Semester (Summer) | | | | |
| 809-196 | Introduction to Sociology (T) | 6 | 3 | |
| 809-188 | Developmental Psychology (T) | 6 | 3 | |
| Total Hrs./Week and Total Credits | | 12 hrs. | 6 cr. | |
| Fourth Semester | | | | |
| 524-144 | PTA Principles of Neuromuscular Rehabilitation (T, L) | 6 | 4 | 524-142, 524-143, 524-157, Co-requisites: 524-145, 524-146, 524-147 |
| 524-145 | PTA Principles of Musculoskeletal Rehabilitation (T, L) | 6 | 4 | 524-139, 524-142, 524-157, Co-requisites: 524-144, 524-146, 524-147 |
| 524-146 | PTA Cardiopulmonary and Integumentary Management (T, L) | 4 | 3 | 524-139, 524-142, 524-157, Co-requisites: 524-144, 524-145, 524-147 |
| 524-147 | PTA Clinical Practice 1 (L, C) | 8 | 2 | 524-142, 524-157, Co-requisites: 524-144, 524-145, 524-146 |
| 809-172 | Intro to Diversity Studies (T) | 3 | 3 | |
| Total Hrs./Week and Total Credits | | 27 hrs. | 16 cr. | |
| Fifth Semester | | | | |
| 524-148 | PTA Clinical Practice 2 (L, C), [Weeks 1-5]* | 40 | 3 | 524-147, Co-requisites: 524-149, 524-150, 524-151 |
| 524-149 | PTA Rehabilitation Across the Lifespan** (L) | 3 | 2 | 524-147, Co-requisites: 524-148, 524-150, 524-151 |
| 524-150 | PTA Professional Issues 2** (L) | 2 | 2 | 524-147, Co-requisites: 524-148, 524-149, 524-151 |
| 524-151 | PTA Clinical Practice 3 (L, C) [Weeks 9-16]* | 40 | 5 | 524-147, Co-requisites: 524-148, 524-149, 524-150 |
| Elective | | | 3 | |
| Total Hrs./Week and Total Credits | | 40 hrs. | 15 cr. | |

MINIMUM PROGRAM CREDITS REQUIRED = 70

C = Clinical L = Lab T = Theory/Lecture

*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.

Program Information

Professional Communications – 10-699-1

Associate Degree - Two Years

Offered Online • August, October, January, March, and June entry dates

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.

Program Information

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

EFFECTIVE: August 2016

PROFESSIONAL COMMUNICATIONS

Associate Degree

| Course Number | Course Title | Hrs./Week | Credits | Prerequisite(s)/Comments |
|--|---|----------------|---------------|--|
| First Semester | | | | |
| 890-115 | Online Success Strategies [1 st 8 weeks] | 2 | 1 | Grade of "C" or better for all prerequisites |
| 103-102 | MS Office Suite [1 st 8 weeks] | 4 | 2 | |
| 801-136 | English Composition 1 [1 st 8 weeks] | 6 | 3 | |
| 699-105 | Document Design [2 nd 8 weeks] | 6 | 3 | 801-136 or concurrent |
| 699-107 | Professional/Technical Writing [2 nd 8 weeks] | 6 | 3 | 801-136 or concurrent |
| 809-198 | Introduction to Psychology [2 nd 8 weeks] | 6 | 3 | |
| Total Hrs./Week and Total Credits | | 15 hrs. | 15 cr. | |
| Second Semester | | | | |
| 699-115 | Editing and Proofreading [1 st 8 weeks] | 6 | 3 | Grade of "C" or better for all prerequisites 801-136 |
| 801-197 | Technical Reporting [1 st 8 weeks] | 6 | 3 | 801-136 |
| 801-196 | Oral/Interpersonal Communication [1 st 8 weeks] | 6 | 3 | |
| 699-117 | Research Basics [2 nd 8 weeks] | 6 | 3 | 801-136 |
| 804-189 | Introductory Statistics [2 nd 8 weeks] | 12 | 3 | |
| Total Hrs./Week and Total Credits | | 18 hrs. | 15 cr. | |
| Third Semester | | | | |
| 699-125 | Proposal/Grant Writing [1 st 8 weeks] | 6 | 3 | Grade of "C" or better for all prerequisites 801-136 |
| 809-196 | Introduction to Sociology [1 st 8 weeks] | 6 | 3 | |
| 699-127 | Social Media Communications [2 nd 8 weeks] | 6 | 3 | 801-136 |
| 699-133 | Writing Content for the Web [2 nd 8 weeks] | 6 | 3 | 801-136 |
| 801-141 | Introduction to Mass Communications [2 nd 8 weeks] | 6 | 3 | 801-136 |
| Total Hrs./Week and Total Credits | | 15 hrs. | 15 cr. | |
| Fourth Semester | | | | |
| 699-131 | Information Design [1 st 8 weeks] | 6 | 3 | Grade of "C" or better for all prerequisites 801-136 |
| 699-135 | Writing and Publishing [1 st 8 weeks] | 6 | 3 | 801-136 |
| 102-188 | Project Management [1 st 8 weeks] | 6 | 3 | |
| 699-137 | Product Documentation [2 nd 8 weeks] | 6 | 3 | 801-136 |
| 699-138 | Professional Communications Capstone [2 nd 8 weeks] | 4 | 2 | Program student; Co-requisite 699-139 |
| 699-139 | Professional Communications Internship (64 hours) [2 nd 8 weeks] | 8 | 1 | Program student; 699-107, 699-115, (102-188 or concurrent); Co-requisite 699-138 |
| Total Hrs./Week and Total Credits | | 22 hrs. | 15 cr. | |

MINIMUM PROGRAM CREDITS REQUIRED = 60

Program Information

Radiography – 10-526-1

Associate Degree - Two Years

Offered in Eau Claire • August entry date

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!

Program Information

| | |
|-----------------------|------------------------|
| START DATE(S): August | EFFECTIVE: August 2016 |
|-----------------------|------------------------|

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 |
| 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 | |
| 809-197 | Contemporary American Society (T) OR | | | |
| 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

C = Clinical L = Lab T = Theory/Lecture

Program Information

Renal Dialysis Technician – 31-517-1

Technical Diploma - One Year

Offered in Eau Claire • August entry date

Description

If this is how you describe yourself, you might be a good candidate for the Renal Dialysis Technician program:

- Seeking a career in the health field
- Compassionate
- Good communication skills
- Good technical skills
- Accurate, alert, and organized
- Able to work on your feet for many hours
- Enjoy working as part of a team
- Able to adhere to high standards of patient care

As a renal dialysis technician, you will operate machines used for hemodialysis, a process that cleanses the blood of people with chronic kidney disease. You will provide patient care under the supervision of a registered nurse. Your specific job responsibilities also would include:

- Troubleshooting and basic maintenance of dialysis machines
- Observing and monitoring patients on dialysis
- Performing venipuncture of dialysis access
- Assisting in maintaining a safe and clean environment
- Collaborating with the registered nurse for patient care

This program provides you with specific technical knowledge and skills and an understanding of principles and concepts related to chronic kidney disease and the dialysis process. It is certified by The Board of Nephrology Examiners Nursing and Technology, Inc. (BONENT). Dialysis patient care technicians are required by the Centers of Medicare and Medicaid (CMS) to become certified within 18 months of being hired in a dialysis unit.

The number of people relying on dialysis is increasing about 3 percent a year. The medical field needs competent, trained renal dialysis technicians. Employment opportunities are available throughout the U.S. This could be the start of a very rewarding career for you!

Program Information

START DATE(S): August

EFFECTIVE: August 2016

RENAL DIALYSIS TECHNICIAN

Technical Diploma

| Course Number | Course Title | Hrs./Week | Credits | Prerequisite(s)/Comments |
|--|--|----------------|------------------|---|
| First Semester | | | | |
| 501-101 | Medical Terminology | 3 | 3 | |
| 517-320 | Intro to Renal Dialysis (T, L) [1st 8 weeks] | 12 | 3 | <u>Program student, 501-101, (801-196 or 801-351) and (809-198 or 809-199) or concurrent; Co-requisite: 517-321</u> |
| 517-321 | Principles of Renal Dialysis 1 (T, L, C) [2nd 8 weeks] | 18 | 4 | <u>Program student, 517-320 or concurrent</u> |
| 801-196 | Oral/Interpersonal Communication (T) OR | 3 | 3 | |
| 801-351 | Applied Communication (T) | 3 | 2 | |
| 809-198 | Introduction to Psychology (T) OR | 3 | 3 | |
| 809-199 | Psychology of Human Relations (T) | | | |
| Total Hrs./Week and Total Credits | | 24 hrs. | 15-16 cr. | |
| Second Semester | | | | |
| 517-302 | Renal Failure and Support Therapies (T) | 6 | 3 | <u>517-321; Co-requisite: 517-304, 517-322, 517-323, 517-324</u> |
| 517-304 | Hemodialysis Lab Procedures (L) [1st 8 weeks] | 4 | 1 | <u>517-321; Co-requisite: 517-302, 517-322, 517-323, 517-324</u> |
| 517-322 | Principles of Renal Dialysis 2 (T) | 6 | 3 | <u>517-321; Co-requisite: 517-302, 517-304, 517-323, 517-324</u> |
| 517-323 | Clinical Practicum 1 (C) [1st 8 weeks] | 16 | 2 | <u>517-321; Co-requisite: 517-302, 517-304, 517-322, 517-324</u> |
| 517-324 | Clinical Practicum 2 (C) [2nd 8 weeks] | 24 | 3 | <u>517-323 or concurrent</u> |
| Total Hrs./Week and Total Credits | | 34 hrs. | 12 cr. | |

MINIMUM PROGRAM CREDITS REQUIRED = 27

C = Clinical L = Lab T = Theory

Program Information

Residential Construction – 31-475-3

Technical Diploma - One Year

Offered in Eau Claire and River Falls • August entry date

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:

- 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 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 good. You have options!

Program Information

START DATE(S): August

EFFECTIVE: Fall 2016

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 |
| 801-196 | Oral/Interpersonal Communication | 3 | 3 | |
| Total Hrs./Week and Total Credits | | 33 hrs. | 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 |
| 806-112 | Principles of Sustainability | 4 | 3 | |
| Total Hrs./Week and Total Credits | | 34 hrs. | 17 cr. | |

MINIMUM PROGRAM CREDITS REQUIRED = 36

Program Information

Respiratory Therapy – 10-515-1

Associate Degree - Two Years

Offered in Eau Claire • August entry date

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.

Program Information

| | |
|-----------------------|------------------------|
| START DATE(S): August | EFFECTIVE: August 2016 |
|-----------------------|------------------------|

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 |
| 801-196 | Oral/Interpersonal Communication (T) | 3 | 3 | |
| 806-177 | General Anatomy & Physiology (T, L) | 5 | 4 | High School Chemistry with a "C" or better |
| Total Hrs./Week and Total Credits | | 19 hrs. | 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, 806-177 |
| 515-176 | Respiratory Disease (T, L) | 4 | 3 | Program student, 515-111, 806-177 |
| 809-198 | Introduction to Psychology (T) | 3 | 3 | |
| Total Hrs./Week and Total Credits | | 17 hrs. | 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 Hrs./Week and Total Credits | | 22 hrs. | 6 cr. | |
| Fourth Semester | | | | |
| 515-112 | Respiratory Airway Management (T, L) [1 st 8 weeks] | 6 | 2 | Program student, 515-172, 515-174, 515-175, 806-197 |
| 515-113 | Respiratory Life Support [2 nd 8 weeks] | 8 | 3 | Program student, 515-172, 515-175, (515-112 or concurrent) |
| 515-178 | Respiratory Clinical 2 (C) [1 st 8 weeks] | 18 | 3 | Program student, 515-175, 806-197 |
| 515-179 | Respiratory Clinical 3 (C) [2 nd 8 weeks] | 18 | 3 | Program student, 515-178 or concurrent |
| 801-136 | English Composition 1 (T) | 3 | 3 | |
| 809-195 | Economics (T) | 3 | 3 | |
| Total Hrs./Week and Total Credits | | 31 hrs. | 17 cr. | |
| Fifth Semester | | | | |
| 515-180 | Respiratory Neo/Peds Care (T, L) [1 st 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) [1 st 8 weeks] | 18 | 3 | Program student, 515-112, 515-179 |
| 515-183 | Respiratory Clinical 5 (C) [2 nd 8 weeks] | 18 | 3 | Program student, 515-182 or concurrent |
| 809-196 | Introduction to Sociology (T) | 3 | 3 | |
| 515-145 | Advanced Respiratory Care Topics (T) | 2 | 2 | Program student, 515-112, 515-178, 515-179 |
| Total Hrs./Week and Total Credits | | 28 hrs. | 16 cr. | |

MINIMUM PROGRAM CREDITS REQUIRED = 70

C = Clinical L = Lab T = Theory/Lecture

Program Information

Sales Management – 10-104-2

Associate Degree - Two Years

Offered in Eau Claire • August entry date

Description

The Sales Management program provides tools and frameworks to strategically analyze and improve your sales organization. Designed to meet the needs of existing sales professionals and aspiring managers who will be responsible for improving the effectiveness of sales force productivity. This program is equally applicable for those managing the sales processes for good and services.

Program Information

| | |
|-----------------------|------------------------|
| START DATE(S): August | EFFECTIVE: August 2016 |
|-----------------------|------------------------|

SALES MANAGEMENT

Associate Degree

| Course Number | Course Title | Hrs./Week | Credits | Prerequisite(s)/Comments |
|--|---|-------------------|------------------|--|
| <u>First Semester</u> | | | | |
| 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 | Intro to Psychology | 3 | 3 | |
| Total Hrs./Week and Total Credits | | 15 hrs. | 15 cr. | |
| <u>Second Semester</u> | | | | |
| 104-105 | Marketing Research | 4 | 3 | <u>104-102</u> |
| 104-125 | Advertising | 3 | 3 | <u>104-102</u> |
| 104-140 | Business to Business Selling | 3 | 3 | <u>Spring only, 104-104</u> |
| 801-196 | Oral/Interpersonal Communication | 3 | 3 | |
| 804-134 | Mathematical Reasoning OR | 4 | 3 | |
| 804-189 | Introductory Statistics | 6 | | |
| Total Hrs./Week and Total Credits | | 17-19 hrs. | 15 cr. | |
| <u>Third Semester</u> | | | | |
| 104-110 | Customer Relationship Management | 3 | 3 | <u>Fall only, 104-102, 104-104, 104-125</u> |
| 104-185 | Negotiation Skills | 3 | 3 | <u>Fall only, 104-102, 104-104</u> |
| 104-191 | Service Excellence | 3 | 3 | <u>Fall only, 104-104</u> |
| 801-198 | Speech | 3 | 3 | |
| 809-166 | Intro to Ethics: Theory & Application OR | 3 | 3 | |
| 809-172 | Intro to Diversity Studies OR | | | |
| 809-196 | Intro to Sociology | | | |
| Total Hrs./Week and Total Credits | | 15 hrs. | 15 cr. | |
| <u>Fourth Semester</u> | | | | |
| 101-105 | Introduction to Accounting OR | 3 | 3 | |
| 101-111 | Accounting 1 | 5 | 4 | |
| 104-114 | E-commerce Sales | 3 | 3 | <u>Spring only, 104-140 or concurrent</u> |
| 104-116 | Sales Management | 3 | 3 | <u>Spring only, 104-125, (104-140 or concurrent)</u> |
| 104-118 | Sales Management Field Study | 3 | 3 | <u>104-140, (104-110, 104-185 or concurrent)</u> |
| 809-195 | Economics | 3 | 3 | |
| Total Hrs./Week and Total Credits | | 15-17 hrs. | 15-16 cr. | |

MINIMUM PROGRAM CREDITS REQUIRED = 60

Program Information

Surgical Technologist – 31-512-1

Technical Diploma - One Year

Offered in Eau Claire • June entry date

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 in Surgical Technology and Surgical Assisting, www.arcstsa.org.

Program Information

START DATE(S): June

EFFECTIVE: June 2016

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 |
| Total Hrs./Week and Total Credits | | 16 hrs. | 7 cr. | |
| Second Semester | | | | |
| 512-327 | ST: Introduction to Surgical Technology (T, L) [1 st 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) [1 st 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) [2 nd 8 weeks] | 7 | 2 | Program student, 501-101, 806-177; Co-requisite: 512-327, 512-328, 512-330 |
| 512-330 | ST: Clinical 1 (C) [2 nd 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 Hrs./Week and Total Credits | | 27 hrs. | 14 cr. | |
| Third Semester | | | | |
| 512-329 | ST: Fundamentals 2 (T, L) [2 nd 8 weeks] | 6 | 2 | Program student, 512-328, (512-331B, 512-332 or concurrent), Co-requisite 512-334 |
| 512-342 | ST: Surgical Procedures 2 (T) [1 st 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) [1 st 8 weeks] | 24 | 4 | 512-330, (512-329 or concurrent), Co-requisite: 512-342, 512-334 |
| 512-334 | ST: Clinical 3 (C) [2 nd 8 weeks] | 24 | 4 | 512-341, (512-332, 801-356 or concurrent) |
| 806-301 | Basic Microbiology (T, L) | 4 | 2 | Spring only |
| Total Hrs./Week and Total Credits | | 35 hrs. | 14 cr. | |

MINIMUM PROGRAM CREDITS REQUIRED = 35

C = Clinical L = Lab T = Theory/Lecture

Program Information

Technical Studies – Journeyworker –10-499-5

Associate Degree - Two Years

Offered in Eau Claire • August and January entry dates

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.

Program Information

| | |
|-----------------------------------|------------------------|
| START DATE(S): August and January | EFFECTIVE: August 2016 |
|-----------------------------------|------------------------|

TECHNICAL STUDIES - JOURNEYWORKER

Associate Degree

| Course Number | Course Title | 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 | |
| 801-196 | Oral/Interpersonal Communication | 3 | |
| 801-197 | Technical Reporting | 3 | 801-136 with a grade of C or better |
| 801-198 | Speech | 3 | |
| | Total Credits | 6 cr. | |
| Third Semester | | | |
| | Choose 3 credits from the following: | | |
| 804-134 | Mathematical Reasoning | 3 | |
| 804-115 | College Technical Math 1 | 5 | |
| 804-116 | College Technical Math 2 | 4 | |
| 804-189 | Introductory Statistics | 3 | |
| 806-134 | General Chemistry | 4 | |
| | Total Credits | 3 cr. | |
| Four Semester | | | |
| | Choose 3 credits from the following (Social Science): | | |
| 809-122 | Introduction to American Government | 3 | |
| 809-128 | Marriage and Family | 3 | |
| 809-166 | Intro to Ethics: Theory & Applications | 3 | |
| 809-172 | Introduction to Diversity Studies | 3 | |
| 809-174 | Social Problems | 3 | |
| 809-195 | Economics | 3 | |
| 809-196 | Introduction to Sociology | 3 | |
| 809-197 | Contemporary American Society | 3 | |
| | Choose 3 credits from the following (Behavioral Science): | | |
| 809-188 | Developmental Psychology | 3 | |
| 809-198 | Introduction to Psychology | 3 | |
| 809-199 | Psychology of Human Relations | 3 | |
| Choose 6 credits from any of the courses listed in semesters 1-4 to complete the 21-credit General Education requirement | | | |
| | Total Credits | 6 cr. | |

MINIMUM PROGRAM CREDITS REQUIRED = 60

Program Information

Truck Driving – 30-458-1

Technical Diploma - Less Than One Year

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

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!

Program Information

| | |
|--|------------------------|
| START DATE(S): August, January, and June | EFFECTIVE: August 2016 |
|--|------------------------|

TRUCK DRIVING
Technical Diploma

Full-time Daytime program is 10 weeks in length

| Course Number | Course Title | Credits | Prerequisite(s)/Comments |
|---------------|------------------------|---------------|---|
| 458-341 | Truck Driving 1 (T, L) | 4 | <u>Program student, Co-requisite: 458-342, 458-343, 458-344, age 18</u> |
| 458-342 | Truck Driving 2 (T, L) | 3 | <u>Program student, Co-requisite: 458-341, 458-343, 458-344, age 18</u> |
| 458-343 | Truck Driving 3 (T, L) | 3 | <u>Program student, Co-requisite: 458-341, 458-342, 458-344, age 18</u> |
| 458-344 | Truck Driving 4 (T, L) | 2 | <u>Program student, Co-requisite: 458-341, 458-342, 458-343, age 18</u> |
| | Total | 12 cr. | |

MINIMUM PROGRAM CREDITS REQUIRED =12

Program Information

Welding – 31-442-1

Technical Diploma - One Year

Offered in Eau Claire • August and January entry dates

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!

Program Information

START DATE(S): August and January

EFFECTIVE: August 2016

WELDING Technical Diploma

| Course Number | Course Title | Hrs./Week | Credits | Prerequisite(s)/Comments |
|--|---|----------------|---------------|---|
| First Semester | | | | |
| 442-310 | Welding Safety and Orientation <i>[2 weeks prior to start of semester-32 hrs.]</i> | | 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 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. | |

MINIMUM PROGRAM CREDITS REQUIRED = 38

Program Information

Welding Fabrication – 32-457-1

Technical Diploma - Two Years

Offered in Eau Claire • August entry date

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.

Program Information

| | |
|-----------------------|------------------------|
| START DATE(S): August | EFFECTIVE: August 2016 |
|-----------------------|------------------------|

WELDING FABRICATION

Technical Diploma

| Course Number | Course Title | Hrs./Week | Credits | Prerequisite(s)/Comments |
|--|---|----------------|---------------|---|
| First Semester | | | | |
| 442-310 | Welding Safety and Orientation <i>[2 weeks prior to start of semester-32 hrs.]</i> | | 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, 442-307, 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, 442-373, 442-366 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 | | | | |
| 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 | Solid Works for Welders | 5 | 3 | Program student, or instructor approval |
| 625-170 | Quality Practices and Measurement | 2 | 2 | Program student, or instructor approval |
| 804-360 | Math for Technical Trades | 4 | 2 | |
| Total Hrs./Week and Total Credits | | 21 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

Pathway Certificates

Air Conditioning – 61-601-1

Offered in Eau Claire • August and January entry dates

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 | 2 | 1 | Program student |
| 601-140 | Electricity Theory | 2 | 1 | |
| 601-148 | Electricity Principles | 4 | 2 | 601-140 or concurrent |
| 601-106 | Refrigeration Theory | 2 | 1 | |
| 601-146 | Schematic Wiring | 2 | 1 | 601-140, 601-148 |
| 601-116 | Principles of Air Conditioning | 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

Gas Heating and Airflow – 61-601-2

Offered in Eau Claire • August and January entry dates

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 | 2 | 1 | Program student |
| 601-140 | Electricity Theory | 2 | 1 | |
| 601-148 | Electricity Principles | 4 | 2 | 601-140 or concurrent |
| 601-107 | Heating Theory | 2 | 1 | |
| 601-146 | Schematic Wiring | 2 | 1 | 601-140, 601-148 |
| 601-108 | Principles of Gas Heat and Airflow | 4 | 2 | 601-107, 601-140, 601-148 or concurrent |
| Total Hrs./Week and Total Credits | | 16 hrs. | 8 cr. | |

MINIMUM PROGRAM CREDITS REQUIRED = 8

Pathway Certificates

Oil, Electric and Hydronic Heating – 61-601-3

Offered in Eau Claire • August and January entry dates

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 | 2 | 1 | Program student |
| 601-140 | Electricity Theory | 2 | 1 | |
| 601-148 | Electricity Principles | 4 | 2 | 601-140 or concurrent |
| 601-107 | Heating Theory | 2 | 1 | |
| 601-146 | Schematic Wiring | 2 | 1 | |
| 601-109 | Principles of Oil, Electric & Hydronic Heating | 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

Refrigeration – 61-601-4

Offered in Eau Claire • August and January entry dates

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 | 2 | 1 | Program student |
| 601-140 | Electricity Theory | 2 | 1 | |
| 601-148 | Electricity Principles | 4 | 2 | 601-140 or concurrent |
| 601-106 | Refrigeration Theory | 2 | 1 | |
| 601-146 | Schematic Wiring | 2 | 1 | 601-140, 601-148 |
| 601-105 | Refrigeration Principles | 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

Embedded Technical Diplomas

Accounting Assistant – 31-101-1

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.

| Course Number | Course Title | Hrs./Week | Credits | Prerequisite(s)/Comments |
|--|---|-------------------|---------------|---|
| First Term | | | | Grade of "C" or better for all prerequisites |
| 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 | | | |
| 804-134 | Mathematical Reasoning OR | 4 | 3 | |
| 804-189 | Introductory Statistics | 6 | | |
| Total Hrs./Week and Total Credits | | 19-21 hrs. | 15 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 | |
| 809-122 | Introduction to American Government OR | 3 | 3 | |
| 809-197 | Contemporary American Society | | | |
| 809-195 | Economics | 3 | 3 | |
| Total Hrs./Week and Total Credits | | 21 hrs. | 18 cr. | |

MINIMUM PROGRAM CREDITS REQUIRED = 33

Embedded Technical Diplomas

Bookkeeper – 31-101-3

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.

| 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

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

Electrical Maintenance – 30-462-1

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.

| Course Number | Course Title | Hrs./Week | Credits | Prerequisite(s)/Comments |
|---------------|--|-----------|---------------|--|
| | First Term | | | |
| 420-125 | Related Machine Tool Concepts | 4 | 2 | <u>Program student</u> |
| 462-118 | Industrial Electricity Principles | 5 | 3 | <u>Program student or instructor approval</u> |
| 462-120 | Centrifugal Pumps & Alignment | 6 | 3 | <u>Program student, 462-126 or concurrent, or instructor approval</u> |
| 462-121 | Repair Automated Manufacturing Equipment | 8 | 4 | <u>Program student, 462-118 or concurrent, or instructor approval</u> |
| 462-123 | Troubleshooting PLC Systems | 6 | 3 | <u>Program student, 462-121 or concurrent, or instructor approval</u> |
| 462-126 | Mechanical Alignment & Bearings | 4 | 2 | <u>Program student, 462-111, 462-119 or concurrent, or instructor approval</u> |
| | Total Credits | | 17 cr. | |

MINIMUM PROGRAM CREDITS REQUIRED = 17

Embedded Technical Diplomas

Electromechanical Maintenance Technician – 31-620-3

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 Automation Systems Technology.

| 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 |
| 612-101 | Related Fluid Power OR | 4 | 2 | |
| 612-109 | Related Fluid Power Pneumatics AND | 2 | 1 | |
| 612-110 | Related Fluid Power Hydraulics | 2 | 1 | |
| 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 | |
| 801-136 | English Composition 1 | 3 | 3 | |
| Total Hrs./Week and Total Credits | | | 14 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 |
| 420-105 | Manual Machining Processes AND | 4 | 2 | |
| 420-106 | CNC Machining Processes OR | 2 | 1 | |
| 442-130 | Welding for Maintenance | 6 | 3 | River Falls, Spring Only |
| Total Hrs./Week and Total Credits | | | 12 cr. | |

MINIMUM PROGRAM CREDITS REQUIRED = 26

Embedded Technical Diplomas

Environmental Refrigeration, Air Conditioning & Heating Service Technician – 31-401-1

If this is how you would describe yourself, you could be a good candidate for the Environmental Refrigeration, Air Conditioning & Heating Service 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!

Embedded Technical Diplomas

Environmental Refrigeration, Air Conditioning & Heating Service Technician, continued

| 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, 601-116 |
| 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, 601-116 |
| 601-161 | HVAC Load Calculations & Psychrometrics | 6 | 3 | Program student |
| 804-134 | Mathematical Reasoning | 4 | 3 | |
| Total Hrs./Week and Total Credits | | 30 hrs. | 18 cr. | |

MINIMUM PROGRAM CREDITS REQUIRED = 33

Embedded Technical Diplomas

IT-3D Simulations – 30-153-1

Learner to Design 3D features for video games and web applications. Specify innovative game and role-play mechanics. Learn how to create and maintain design documentation, and collaborate with teams to produce 3D environments. This diploma can be completed in two semesters.

| Course Number | Course Title | Hrs./Week | Credits | Prerequisite(s)/Comments |
|---------------|--|-----------|--------------|------------------------------|
| | First Term | | | |
| 152-161 | 3D Modeling 1 [1 st 8 weeks] | 8 | 3 | |
| 152-162 | 3D Game/Simulation Programming [2 nd 8 weeks] | 8 | 3 | <u>152-161 or concurrent</u> |
| | Total Hrs./Week and Total Credits | | 6 cr. | |

MINIMUM PROGRAM CREDITS REQUIRED = 6

IT-Database Specialist – 30-152-2

This certification builds on the foundation of programming classes in the User Support Specialist Certificate. 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 MySQL and MS SQL. Students will learn business intelligence concepts (report-writing, knowledge management, data warehouse, data mining, Olap). 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).

| Course Number | Course Title | Hrs./Week | Credits | Prerequisite(s)/Comments |
|---------------|---|-----------|--------------|--------------------------|
| | First Term | | | |
| 152-136 | Database 2 [1 st 8 weeks] | 8 | 3 | <u>152-132</u> |
| 152-112 | Business Intelligence [1 st 8 weeks] | 8 | 3 | <u>152-132</u> |
| | Total Hrs./Week and Total Credits | | 6 cr. | |

MINIMUM PROGRAM CREDITS REQUIRED = 6

Embedded Technical Diplomas

IT-Java Programmer – 30-152-9

This diploma 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 | OO Analysis & Design-Java <i>[1st 8 weeks]</i> | 8 | 3 | <u>152-101</u> |
| 152-129 | Java Web Programming <i>[2nd 8 weeks]</i> | 8 | 3 | <u>152-142 or concurrent</u> |
| | Total Hrs./Week and Total Credits | | 6 cr. | |

MINIMUM PROGRAM CREDITS REQUIRED = 6

IT-Microsoft .NET Programmer – 30-152-3

This diploma builds on the foundation of programming classes in the IT User Support Technician diploma. Students will: Design, create, and modify .NET based web sites. Analyze user needs to implement web site content, graphics, performance, and capacity. May integrate web sites with other computer applications.

| Course Number | Course Title | Hrs./Week | Credits | Prerequisite(s)/Comments |
|---------------|--|-----------|--------------|------------------------------|
| | First Term | | | |
| 152-103 | .NET Application Development <i>[1st 8 weeks]</i> | 8 | 3 | <u>152-101</u> |
| 152-105 | .NET – ASP <i>[2nd 8 weeks]</i> | 8 | 3 | <u>152-103 or concurrent</u> |
| | Total Hrs./Week and Total Credits | | 6 cr. | |

MINIMUM PROGRAM CREDITS REQUIRED = 6

Embedded Technical Diplomas

IT-Mobile Android – 30-107-2

Become an Android mobile application developer. Learn about the various stages of development on the Android platform, and study topics related to user interface, application services, security, graphics, data persistence, monitoring tools, mobile app marketing and more. This diploma can be completed in one semester.

| Course Number | Course Title | Hrs./Week | Credits | Prerequisite(s)/Comments |
|---------------|--|-----------|--------------|--------------------------|
| | First Term | | | |
| 152-136 | Database 2 <i>[1st 8 weeks]</i> | 8 | 3 | <u>152-132</u> |
| 152-151 | Mobile Application Development-Android <i>[2nd 8 weeks]</i> | 8 | 3 | <u>152-129</u> |
| | Total Hrs./Week and Total Credits | | 6 cr. | |

MINIMUM PROGRAM CREDITS REQUIRED = 6

IT-Mobile iOS – 30-107-1

Learn to develop and market your own iOS applications. Understand the essential components of a well-designed, well-engineered app. Become fluent in the Objective-C programming language. Study the key elements of an interactive and visually appealing user interface. Examine tools and techniques for testing and debugging your apps, and learn ways to market your apps through the iTunes App stores. This diploma can be completed in three semesters.

| Course Number | Course Title | Hrs./Week | Credits | Prerequisite(s)/Comments |
|---------------|---|-----------|--------------|------------------------------|
| | First Term | | | |
| 152-114 | Objective C Programming-Cocoa <i>[2nd 8 weeks]</i> | 8 | 3 | <u>152-142 or concurrent</u> |
| 152-115 | Mobile Applications Dev 1-iOS <i>[1st 8 weeks]</i> | 8 | 3 | <u>152-114</u> |
| 152-116 | Mobile Applications Dev 2-iOS <i>[1st 8 weeks]</i> | 8 | 3 | <u>152-115</u> |
| | Total Hrs./Week and Total Credits | | 9 cr. | |

MINIMUM PROGRAM CREDITS REQUIRED = 9

Embedded Technical Diplomas

IT-User Support Technician – 30-154-5

The User Support Specialist Certificate 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.

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

MINIMUM PROGRAM CREDITS REQUIRED = 9

IT-Web Development Specialist – 30-152-4

This certification builds on the foundation of programming classes in the IT User Support Technician diploma. Students will cover creating dynamic web pages using XHTML and Cascading Style Sheets (CSS). Extend their knowledge into creating dynamic web applications using client-side JavaScript, server-side PHP, and AJAX. Advanced PHP and database drive web application development are explored in depth. An exploration of Macromedia Dreamweaver and Flash is also covered.

| Course Number | Course Title | Hrs./Week | Credits | Prerequisite(s)/Comments |
|--|--|-----------|--------------|---|
| First Term | | | | |
| 152-108 | Web 2 – JavaScript [<i>2nd 8 weeks</i>] | 8 | 3 | <u>152-101, (152-107 or concurrent)</u> |
| 152-159 | Web Multimedia [<i>1st 8 weeks</i>] | 8 | 3 | <u>152-108</u> |
| Total Hrs./Week and Total Credits | | | 6 cr. | |

MINIMUM PROGRAM CREDITS REQUIRED = 6

Embedded Technical Diplomas

Mechanical Maintenance – 30-462-2

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.

| Course Number | Course Title | Hrs./Week | Credits | Prerequisite(s)/Comments |
|---------------|--|-----------|---------------|---|
| | First Term | | | |
| 419-116 | Basic Hydraulics | 4 | 2 | <u>Program student or instructor approval</u> |
| 419-117 | Basic Pneumatics | 4 | 2 | <u>Program student or instructor approval</u> |
| 442-120 | Related Welding- Industrial Mechanic | 4 | 2 | <u>Program student or instructor approval</u> |
| 462-111 | Mechanical Concepts | 4 | 2 | <u>Program student or instructor approval</u> |
| 462-115 | Industrial PC Applications | 4 | 2 | <u>Program student or instructor approval</u> |
| 462-119 | Industrial Mechanical Skills | 4 | 2 | <u>Program student or instructor approval</u> |
| 462-130 | Industrial Mechanic Prints and Documents | 2 | 2 | <u>Program student or instructor approval</u> |
| 625-180 | Manufacturing Skills Standards | 2 | 2 | |
| | Total Hrs./Week and Total Credits | | 16 cr. | |

MINIMUM PROGRAM CREDITS REQUIRED = 16

Embedded Technical Diplomas

Office Assistant – 31-106-1

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.

Embedded Technical Diplomas

Office Assistant, continued

| Course Number | Course Title | Weeks | Hrs./Week | Credits | Prerequisite(s)/Comments |
|--------------------|---|-------|-------------------|---------------|--|
| First Term | | | | | |
| 106-118 | Computer Basics 1 | 1-4 | 4 | 1 | |
| 106-150 | Office Procedures 1 AND | 1-4 | 4 | 1 | |
| 106-165 | Office Equipment OR | 5-8 | 4 | 1 | |
| 509-130 | Medical Office Procedures | 9-16 | 6 | 2 | |
| 106-113 | Customer Service 1 | 5-8 | 8 | 1 | |
| 106-121 | Computer Basics 2 | 5-8 | 4 | 1 | 106-118 or concurrent |
| 106-152 | Job Search-Bus Support Prof. 1 | 9-12 | 4 | 1 | |
| 106-114 | Customer Service 2 | 9-12 | 4 | 1 | |
| 103-102 | Microsoft Office Suite | 9-16 | 4 | 2 | |
| 106-110 | Business Support Professional Practice 1 (64 hours) | 9-16 | 8 | 1 | 103-102, 106-113, 106-114, 106-115, 106-121, 106-152 or concurrent |
| 106-115 | Customer Service 3 | 13-16 | 4 | 1 | |
| 101-105 | Accounting, Intro to OR | | 3 | 3 | |
| 501-101 | Legal Terminology OR | | 3 | | |
| 106-162 | Medical Terminology | | 3 | | |
| 801-196 | Oral Interpersonal Communication | | 3 | 3 | |
| | Total Hrs./Week and Total Credits | | 10-32 hrs. | 17 cr. | |
| Second Term | | | | | |
| 106-107 | Publications | 1-4 | 4 | 1 | 103-102 |
| 106-122 | Document Processing | 1-4 | 8 | 1 | 103-102 |
| 106-128 | Business Words at Work 1 | 1-4 | 8 | 1 | 103-102 |
| 106-116 | Database | 5-8 | 8 | 1 | 103-102 |
| 106-124 | Spreadsheets 1 | 5-8 | 8 | 1 | 103-102 |
| 106-129 | Business Words at Work 2 | 5-8 | 4 | 1 | 106-128 or concurrent |
| 106-130 | Business Words at Work 3 | 9-12 | 4 | 1 | 106-129 or concurrent |
| 106-160 | Office Procedures 2 | 9-12 | 4 | 1 | |
| 106-172 | Microsoft Outlook | 9-12 | 4 | 1 | |
| 106-135 | Business Support Professional Internship 1 (64 hours) | 9-16 | 8 | 1 | 106-107, 106-116, 106-122, 106-124, 106-130, (106-172 or concurrent) |
| 106-111 | Business Support Professional Practice 2 | 13-16 | 4 | 1 | 106-110 or concurrent |
| 106-125 | Spreadsheets 2 | 13-16 | 8 | 1 | 106-124 or concurrent |
| 101-149 | Introduction to QuickBooks OR | | 4 | 2 | |
| 106-182 | Legal Computing OR | | 2 | | |
| 530-103 | Medical Insurance & Billing | | 2 | | |
| 809-198 | Introduction to Psychology OR | | 3 | 3 | |
| 809-199 | Psychology of Human Relations | | 3 | | |
| | Total Hrs./Week and Total Credits | | 23-27 hrs. | 17 cr. | |

MINIMUM PROGRAM CREDITS REQUIRED = 34

Embedded Technical Diplomas

Office Receptionist – 30-106-3

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.

| Course Number | Course Title | Weeks | Hrs./Week | Credits | Prerequisite(s)/Comments |
|--|---|-------|-------------------|---------------|---|
| First Term | | | | | |
| 106-118 | Computer Basics 1 | 1-4 | 4 | 1 | |
| 106-150 | Office Procedures 1 AND | 1-4 | 4 | 1 | |
| 106-165 | Office Equipment OR | 5-8 | 4 | 1 | |
| 509-130 | Medical Office Procedures | 9-16 | 6 | 2 | |
| 106-113 | Customer Service 1 | 5-8 | 8 | 1 | |
| 106-121 | Computer Basics 2 | 5-8 | 4 | 1 | <u>106-118 or concurrent</u> |
| 106-152 | Job Search-Business Support Professional 1 | 9-12 | 4 | 1 | |
| 106-114 | Customer Service 2 | 9-12 | 4 | 1 | |
| 103-102 | Microsoft Office Suite | 9-16 | 4 | 2 | |
| 106-110 | Business Support Professional Practice 1 (64 hours) | 9-16 | 8 | 1 | <u>103-102, 106-113, 106-114, 106-115, 106-121, 106-152 or concurrent</u> |
| 106-115 | Customer Service 3 | 13-16 | 4 | 1 | |
| 101-105 | Accounting, Intro to OR | | 3 | 3 | |
| 501-101 | Legal Terminology OR | | 3 | | |
| 106-162 | Medical Terminology | | 3 | | |
| 801-196 | Oral Interpersonal Communication | | 3 | 3 | |
| Total Hrs./Week and Total Credits | | | 10-32 hrs. | 17 cr. | |

MINIMUM PROGRAM CREDITS REQUIRED = 17

Embedded Technical Diplomas

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

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.

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

TOTAL CREDITS REQUIRED = 24

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

Embedded Technical Diplomas

Renewable Energy – 30-401-3

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.

| Course Number | Course Title | Hrs./Week | Credits | Prerequisite(s)/Comments |
|---------------|--|----------------|---------------|--|
| | First Term | | | |
| 601-125 | Safety – HVAC | 2 | 1 | <u>Program student</u> |
| 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 | <u>601-140 or concurrent</u> |
| 601-144 | Solar/Wind Applications | 4 | 2 | _____ |
| 601-145 | Geothermal Applications | 2 | 1 | _____ |
| 601-146 | Schematic Wiring | 2 | 1 | <u>601-140, 601-148</u> |
| 601-147 | Schematic Wiring-Troubleshooting | 2 | 1 | <u>601-140, 601-146, 601-148 or concurrent</u> |
| 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

Technical Certificates

Advanced Machining – Swiss – TC-420-1

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

Technical Certificates

CAD Operator – TC-606-02

Provides instruction for the entry level mechanical CAD (Computer Aided Design) operator. Software operation using industry standard AutoCad and SolidWorks software are used during instruction to develop detailed design drawings and specifications for mechanical equipment, dies, and tools using computer-assisted drafting (CAD) equipment. Two dimensional drawings, isometric drawings, three dimensional drawings and assemblies will be created. Print reading, visualization, sketching, and design document structuring are addressed. The student will have the opportunity to develop a portfolio of multiple CAD applications. Fundamental Geometric Dimensioning and Tolerancing principles are applied to mechanical part designs based on the current **ASME Y14.5 standard**. Courses in the certificate introduce the student to a broader range of manufacturing process, related part feature creation, material properties and the effects of production variation on design and part productibility.

| Course Number | Course Title | Hrs./Week | Credits | Prerequisite(s)/Comments |
|----------------------|--------------------------------------|-----------|---------------|-----------------------------|
| 606-161 | CAD, Basic | 4 | 3 | |
| 606-102 | Principles of Design | 3 | 2 | |
| 606-104 | Geometric Dimensioning & Tolerancing | 4 | 3 | |
| 606-130 | Solid Modeling I | 5 | 3 | |
| 606-131 | Solid Modeling II | 5 | 3 | 606-130 |
| 623-107 | Engineering Materials | 4 | 3 | Program/Certificate student |
| Total Credits | | | 17 cr. | |

TOTAL CREDITS REQUIRED = 17

Cisco Networking Academy – TC-150-1

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 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. | |

TOTAL CREDITS REQUIRED = 10

****A minimum final grade of "C" is required in all prerequisite courses***

Technical Certificates

CNC Machining Retraining – TC-420-2

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 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 | <u>Certificate student</u> |
| 420-380A | 2-D CAM | 4 | 2 | <u>Certificate student, 420-325A or concurrent</u> |
| 420-330A | Basic CNC Lathe Programming | 10 | 5 | <u>Certificate student, 420-325A or concurrent</u> |
| Total Credits | | | 12 cr. | |

TOTAL CREDITS REQUIRED = 12

Critical Care Nursing – TC-543-2

This certificate is restricted to registered nurses with proof of an active license or Chippewa Valley Technical College Associate Degree Nursing program students who have successfully completed 543-109, 543-110, 543-111 and 543-112.

This certificate is designed to expand the student’s knowledge of nursing practice in the critical care nursing environment. This certificate may lead to enhanced career advancement potential and/or employability in a surgical area. The laboratory component of the course is offered in the Human Patient Simulation Laboratory at the Eau Claire Health Education Center. The theory component will be offered through web-based instruction. The clinical experiences will be offered at a variety of clinical facilities. A certificate will be awarded upon completion of 543-121 and 543-122 for registered nurses. Chippewa Valley Technical College Associate Degree Nursing students who complete 543-121 Introduction to Critical Care Nursing and 543-116 Nursing Clinical Transition in a critical care area are also eligible to receive the Critical Care Nursing Certificate.

| Course Number | Course Title | Hrs./Week | Credits | Prerequisite(s)/Comments |
|----------------------|---|-----------|--------------|---|
| 543-121 | Introduction to Critical Care Nursing | 4 | 3 | <u>Program/Certificate student, 543-116 or concurrent</u> |
| 543-122 | Clinical Practice in Critical Care Nursing <i>[96 hours]</i> | | 2 | <u>Certificate student, 543-121 or concurrent</u> |
| Total Credits | | | 5 cr. | |

TOTAL CREDITS REQUIRED = 5

Technical Certificates

Critical Care Transport – TC-531-2

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

Customer Service Representative – TC-106-6

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 | |
| 106-113 | Customer Service 1 | 1 | |
| 106-114 | Customer Service 2 | 1 | |
| 106-115 | Customer Service 3 | 1 | |
| 106-150 | Office Procedures 1 | 1 | |
| 106-128 | Business Words @ Work 1 | 1 | 103-102 |
| 106-129 | Business Words @ Work 2 | 1 | 106-128 or concurrent |
| 106-130 | Business Words @ Work 3 | 1 | 106-129 or concurrent |
| | Total Credits | 9 cr. | |

TOTAL CREDITS REQUIRED = 9

Technical Certificates

Electronics – TC-620-2

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

Emergency Department Nursing Certificate – TC-543-3

This certification is designed to expand the student's knowledge of nursing practice in the emergency nursing environment. This online and laboratory certificate specializing in Emergency Department Nursing gives participants the essential knowledge base required for assessment and initial management of the emergency patient. By gaining certification, participants not only validate competency, but also demonstrate a greater commitment to specialty and quality health care. This certificate focuses on determining priorities of care in the assessment of ill or injured emergency patients. Topics covered include: triage, assessment, and management of shock; fluid resuscitation; and stabilization of respiratory, neurological, thoracic, and abdominal injuries, basic EKG interpretation, and Advanced Cardiac Life Support (ACLS). This certificate may lead to enhanced career advancement potential and/or employability in an emergency area. The laboratory component of the course is offered on the Eau Claire Health Education Center Virtual Medical Center course number 543-166 Introduction to Emergency Department Nursing (includes ACLS course and EKG Basics). The clinical experiences will be offered at a variety of clinical facilities, course number 543-167 Clinical Practice in Emergency Department Nursing. A certificate will be awarded upon completion of these courses. An alternative completion is 543-116 Nursing Clinical Transition and the lab course 543-166 Introduction to Emergency Department Nursing.

| Course Number | Course Title | Credits | Prerequisite(s)/Comments |
|---------------|---|--------------|--|
| 543-166 | Introduction to Emergency Department Nursing | 3 | Program/Certificate student, 543-116 or concurrent |
| 543-167 | Clinical Practice in Emergency Department Nursing | 2 | Certificate student, 543-166 or concurrent |
| | Total Credits | 5 cr. | |

TOTAL CREDITS REQUIRED = 5

Technical Certificates

Emergency Medical Technician – TC-531-1

The Basic Emergency Medical Technician (EMT) class consists of 144 hours of course work and adheres to all national and state guidelines. Classes are usually held two or three sessions per week for a semester. Graduates of the course are eligible to participate in the National Registry examination to become licensed as Emergency Medical Technicians in the State of Wisconsin. EMT IV Tech is a 90-hour course which adheres to state guidelines and prepares experienced EMTs in advanced life support, including IVs, and administration of select medications offered upon request.

| Course Number | Course Title | Hrs. | Credits | Prerequisite(s)/Comments |
|---------------|--|------|--------------|--|
| 531-110 | <i>Choose 1 course(s) from the following:</i> Emergency Medical Technician | 160 | 5 | <u>531-454 CPR-Healthcare Provider</u> |
| 531-340 | Advanced EMT | 90 | 3 | |
| | Total Credits | | 3 cr. | |

TOTAL CREDITS REQUIRED = 3

Event Marketing – TC-104-5

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 | <u>104-102</u> |
| 104-161 | Event Marketing | 4 | 4 | <u>104-102, 104-104, 104-125</u> |
| | Total Credits | | 13 cr. | |

TOTAL CREDITS REQUIRED = 13

Technical Certificates

Fluid Power Maintenance – TC-462-1

Hydraulic and Pneumatic devices do the heavy lifting and movement of automation and industrial work. Understanding the principles of these technologies is 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

Human Resource Generalist – TC-116-2

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 | |
| 116-111 | Performance Management & Employee Reward Systems | 3 | 3 | 116-193 |
| 116-112 | Training & Development | 3 | 3 | |
| 116-110 | Employee Benefits | 3 | 3 | 116-193 |
| 116-113 | Human Resource Law | 3 | 3 | 116-193 |
| 116-114 | Recruitment & Selection | 3 | 3 | 116-193 |
| | Total Credits | | 18 cr. | |

TOTAL CREDITS REQUIRED = 18

Technical Certificates

IT Network Support Associate – TC-150-2

Completion of this certificate prepares the learner to perform basic installation, configuration, and support of Unix/Linux, Novell eDirectory 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 |
|---------------|-----------------------------------|-----------|---------------|---|
| 150-123 | IT Networking Concepts | 4 | 3 | Program/Certificate student |
| 150-120 | Network Diagramming | 2 | 1 | Program/Certificate student |
| 150-150 | CCNA 1: Introduction to Networks | 4 | 3 | Program/Certificate student |
| 150-134 | Network Infrastructure Concepts | 3 | 2 | Program/Certificate student |
| 150-160 | Network Directory Services | 4 | 3 | Program/Certificate student; 150-123, 150-150 |
| 150-165 | MS Windows Network Administration | 4 | 3 | 150-123, 150-150 |
| 150-175 | Unix System Administration | 4 | 3 | 150-123, 150-150 |
| 150-143 | Computer Hardware | 6 | 4 | 150-123, 150-134 |
| | Total Credits | | 22 cr. | |

TOTAL CREDITS REQUIRED = 22

Leadership/Supervision – TC-116-1

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 |
|---------------|--|-----------|---------------|--------------------------|
| 116-190 | Leadership Development | 3 | 3 | |
| 102-112 | Principles of Management | 3 | 3 | |
| 116-111 | Performance Management & Employee Reward Systems | 3 | 3 | |
| 102-113 | Business Ethics | 3 | 3 | |
| | Total Credits | | 12 cr. | |

TOTAL CREDITS REQUIRED = 12

Technical Certificates

Manufacturing Quality – TC-625-2

This certificate provides developmental knowledge and skills 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. Technical skills will be developed in math, quality fundamentals, lean fundamentals, print specifications, quality standards, and coordinate measurement inspection tools.

| Course Number | Course Title | Hrs./Week | Credits | Prerequisite(s)/Comments |
|----------------------|--------------------------------------|-----------|---------------|--------------------------|
| 804-115 | College Technical Math 1 | 5 | 5 | |
| 804-189 | Introductory Statistics | 6 | 3 | |
| 623-130 | Lean Fundamentals | 2 | 2 | |
| 606-104 | Geometric Dimensioning & Tolerancing | 4 | 3 | |
| 625-110 | Manufacturing & Quality Assurance | 3 | 3 | 804-189 |
| 623-111 | Measurement for Engineering | 2 | 1 | |
| Total Credits | | | 17 cr. | |

TOTAL CREDITS REQUIRED = 17

Marketing Strategy – TC-104-3

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 | 104-102, 104-105, 104-125 |
| Total Credits | | | 15 cr. | |

TOTAL CREDITS REQUIRED = 15

Technical Certificates

Network Hardware Support Specialist – TC-150-3

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 |
|----------------------|--|-----------|---------------|-----------------------------|
| 150-120 | Network Diagramming | 2 | 1 | Program/Certificate student |
| 150-150 | CCNA 1: Introduction to Networks | 4 | 3 | Program/Certificate student |
| 150-151 | CCNA 2: Routing and Switching Essentials | 4 | 3 | 150-150 |
| 150-183 | Wireless Networking | 3 | 2 | 150-151 |
| 150-170 | Computer Maintenance and Support | 5 | 3 | 150-143 |
| Total Credits | | | 12 cr. | |

TOTAL CREDITS REQUIRED = 12

Programmable Logic Controller – TC-620-1

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 | Electromechanical Systems Interfacing | 8 | 4 | 620-136 |
| Total Credits | | | 13 cr. | |

TOTAL CREDITS REQUIRED = 13

Technical Certificates

Promotional Design – TC-104-6

This certificate is designed to develop skills that are needed to create effective integrated marketing communication campaigns including: understanding customer insight, segmenting and targeting, positioning a brand, identifying campaign objects, developing creative media strategies, determining the best way to evaluate and measure the effectiveness of you IMC effort. In addition, you will learn media creation such as website development, promotional design, and professional presentations.

| Course Number | Course Title | Hrs./Week | Credits | Prerequisite(s)/Comments |
|----------------------|---------------------------------|-----------|---------------|--------------------------|
| 104-102 | Marketing Principles | 3 | 3 | |
| 104-125 | Advertising | 4 | 3 | <u>104-102</u> |
| 104-109 | Social Media Marketing Strategy | 2 | 2 | <u>104-102, 104-125</u> |
| 104-126 | Promotional Design | 3 | 3 | <u>104-102, 104-125</u> |
| Total Credits | | | 11 cr. | |

TOTAL CREDITS REQUIRED = 11

Pumping Systems Maintenance – TC-462-2

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, and 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 | <u>Certificate student</u> |
| 462-120 | Centrifugal Pumps & Alignment | 3 | <u>Certificate student, 462-126 or concurrent</u> |
| 462-126 | Mechanical Alignment & Bearing | 2 | <u>Certificate student, 462-111, 462-119 or concurrent</u> |
| 462-130 | Industrial Mechanical Prints & Documents | 2 | <u>Certificate student</u> |
| 625-180 | Manufacturing Skills Standards | 2 | <u>Program/Certificate student</u> |
| Total Credits | | 11 cr. | |

TOTAL CREDITS REQUIRED = 11

Technical Certificates

Sales – TC-104-4

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 | Professional Selling | 3 | 3 | |
| 104-191 | Service Excellence | 3 | 3 | <u>104-104</u> |
| 104-140 | Business to Business Selling | 3 | 3 | <u>104-104</u> |
| Total Credits | | | 12 cr. | |

TOTAL CREDITS REQUIRED = 12

Small Business Marketing – TC-104-1

This certificate is designed to help prepare a person to implement effective marketing and management strategies for a small business. This is an ideal training program to help a person move up in the organization or manage their small business.

| Course Number | Course Title | Hrs./Week | Credits | Prerequisite(s)/Comments |
|----------------------|-----------------------------|-----------|---------------|--------------------------|
| 102-130 | Innovative Business Mindset | 3 | 3 | |
| 104-102 | Marketing Principles | 3 | 3 | |
| 104-104 | Sales Presentations | 3 | 3 | |
| 104-125 | Advertising | 4 | 3 | <u>104-102</u> |
| Total Credits | | | 12 cr. | |

TOTAL CREDITS REQUIRED = 12

Technical Certificates

Software Specialist – TC-106-10

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 |
|---------------|------------------------|--------------|--|
| 103-102 | Microsoft Office Suite | 2 | |
| 106-122 | Document Processing | 1 | <u>103-102</u> |
| 106-107 | Publications | 1 | <u>103-102</u> |
| 106-124 | Spreadsheets 1 | 1 | <u>103-102</u> |
| 106-125 | Spreadsheets 2 | 1 | <u>106-124 or concurrent</u> |
| 106-116 | Database | 1 | <u>103-102</u> |
| 106-172 | Microsoft Outlook | 1 | |
| 106-169 | Applied Software | 1 | <u>106-125, (106-107, 106-116, 106-122, 106-124, 106-130, 106-172 or concurrent)</u> |
| | Total Credits | 9 cr. | |

TOTAL CREDITS REQUIRED = 9

Course Descriptions

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): 100011 Landscape Plant Turf Mg

001-102 Landscape Design/Construction **2 cr**

Students will learn how to create a sustainable landscape design that is functional, maintainable, environmentally sound, cost effective, and aesthetically pleasing. Emphasis will be on the landscape design sequence and implementation of the completed landscape design.

Restricted to students admitted to the following program(s): 100011 Landscape Plant Turf Mg

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): 100011 Landscape Plant Turf Mg

001-104 Greenhouse Management **2 cr**

A variety of topics fundamental to managing a greenhouse will be addressed in this course. The overall operation of a green house facility including types of structures, heating/cooling options, lighting, insect/disease management, watering methods, and equipment will be examined.

Restricted to students admitted to the following program(s): 100011 Landscape Plant Turf Mg

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): 100011 Landscape Plant Turf Mg

001-109 Horticulture Internship **3 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

Course Descriptions

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): 100011 Landscape Plant Turf Mg

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): 100011 Landscape Plant Turf Mg

001-112 Interior Plants & Landscaping **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 use characteristics.

Restricted to students admitted to the following program(s): 100011 Landscape Plant Turf Mg

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): 100011 Landscape Plant Turf Mg

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): 100011 Landscape Plant Turf Mg

001-115 Vegetable and Fruit Production **2 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): 100011 Landscape Plant Turf Mg

001-116 Landscape Plants **3 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): 100011 Landscape Plant Turf Mg

Course Descriptions

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): 100011 Landscape Plant Turf Mg

001-125 Horticulture Equipment & 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): 100011 Landscape Plant Turf Mg

006 Agri-Business

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.

Course Descriptions

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 Principles of Ag-Products Mktg **3 cr**

This course will apply supply and demand economic principles to the marketing of agricultural commodities including grains, livestock, and milk. This course will focus on the development of marketing strategies for agricultural commodities using cash sales, forward contracts, hedging, and options.

006-140 Agribusiness Sales **3 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.

Course Descriptions

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, 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.

Course Descriptions

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.

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 Intern. 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.

006-199 Agriscience-Ind Study

3 cr

This course is designed to give the student an opportunity to research an area of agriculture production, agriscience or agribusiness that is not part of the regular curriculum. The student learning plan, including required reports and projects, are developed in conjunction with the instructor.

007 Biotechnology

007-111 Applied Biotechnology

2 cr

Applications of biotechnology to agriscience; tissue culturing such as cloning, cell manipulation and gene transfer.

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.

090-315 Farm Business Planning

2 cr

This course is intended for current Farm Business Production Management students requesting additional one-on-one educational time. Emphasis will be on developing a farm business plan and implementing a farm record keeping system. The course will consist of two one-on-one farm session of four hours each. It may include tours, field trips, seminars, and workshops in addition to one-on-one interaction. The course allows students to work on independent-type projects for their farm operation and may include phone and computer-based contact as needed during the implementation of the course work.

Course Descriptions

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.

090-325 Farm Financial Analysis **2 cr**

This course is intended for current Farm Business Production Management students requesting additional one-on-one educational time. Emphasis will be on developing a farm financial plan including, but not limited to, a balance sheet, cash flow statement, income statement, and other financial statements required for a farm business. It may include tours, field trips, seminars, and workshops in addition to one-on-one interaction. The course allows student to work on independent-type projects for their farm operation and may include phone and computer-based contact as needed during the implementation of the course work.

090-330 Precise Agronomics & Energy Mgmt **4 cr**

Crop management, including planning, planting, care, harvesting, storage, and marketing.

090-335 Nutrient Management Planning **2 cr**

This course is intended for current Farm Business Production Management students requesting additional one-on-one educational time. Emphasis will be on updating and interpreting a farm nutrient management plan. It may include tours, field trips, seminars, and workshops in addition to one-on-one interaction. The course allows students to work on independent-type projects for their farm operation and may include phone and computer-based contact as needed during the implementation of the course work.

090-340 Livestock Nutrition & Reproduction **4 cr**

Apply livestock nutrition principles and complete a farm business analysis.

090-345 Farm Production and Marketing **2 cr**

This course is intended for current Farm Business Production Management students requesting additional one-on-one educational time. Emphasis will be on maintaining and interpreting farm production and marketing plans. It may include tours, field trips, seminars, and workshops in addition to one-on-one interaction. The course allows students to work on independent-type projects for their farm operation and may include phone and computer-based contact as needed during the implementation of the course work.

090-350 Farm Business Analysis & Market Strat **4 cr**

Computerized financial records, credit, budgeting, farm estate planning, financial analysis, and risk management.

090-360 Livestock Fac, Health & Biosecurity **4 cr**

Dairy production including housing youngstock, breeding and sire selection, herd health, quality milk production, and marketing.

Course Descriptions

090-370 Progressive Dairy Management

4 cr

This course is designed for individuals in management positions on large scale dairy farms with multiple employees. The course features both theory and on-farm application of topics related to employee management, business performance, and large scale production issues.

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.

090-392 Adv Cultural Pract in Agronomy

4 cr

This 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 specialized cropping alternatives and strategies, biotechnology applications in crop production, environmental issues, site specific farming principles, software applications, as well as other emerging technologies.

101 Accounting

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

Course Descriptions

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.

Course Descriptions

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.

Course Descriptions

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 Pro student 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.

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)

101-199 Accounting-Independent Study

3 cr

Student contracts with instructor, selects topic related to program but not offered as a course or a topic not covered in depth in the program.

Course Descriptions

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.

Prerequisite(s): 103-102 Microsoft Office Suite

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.

Prerequisite(s): 101-184 Business Finance & Budgeting

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.

102-116 Management Decision Making **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.

Prerequisite(s): 102-112 Principles of Management

Course Descriptions

102-117 Business Mgmt Capstone

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): (116-193 Human Resources, Intro or 102-111 Human Resources, Intro to or 196-193 Human Resources, Intro) and 102-112 Principles of Management and 102-113 Business Ethics and 102-116 Management Decision Making and 102-109 Business Analytics

Corequisite(s): 102-115 Business Mgmt Internship

102-118 Business Management Capstone

3 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 102-112 Principles of Management and 102-113 Business Ethics and 102-133 Leadership for Bus Excellence 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.

Course Descriptions

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.

Corequisite(s): 502-305 Haircutting 3, 502-324 Salon Services 4, 502-371 Advanced Salon Operations

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 Mgmt

104-100 Digital Marketing

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.

Course Descriptions

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

2 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.

Prerequisite(s): 104-102 Marketing Principles and 104-125 Advertising

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

104-112 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.

Course Descriptions

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.

Prerequisite(s): 104-140 Business to Business Selling

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): 104-112 Visual Design and 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.

Prerequisite(s): 104-104 Sales Presentations

Course Descriptions

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

104-160 Entertainment/Sports/Event Mkt

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.

Prerequisite(s): 104-102 Marketing Principles and 104-125 Advertising

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.

Prerequisite(s): 104-102 Marketing Principles and 104-104 Sales Presentations and 104-125 Advertising

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.

Prerequisite(s): 104-102 Marketing Principles

104-163 Social Media Policies & Ethics

3 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.

Prerequisite(s): 104-109 Social Media Mktg Strategy

Course Descriptions

104-164 Digital Video and Audio

3 cr

Digital Video and Audio 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 Entertainment/Sports/Event Mkt or 104-161 Event Marketing

Corequisite(s): 104-182 Personal Branding

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.

Prerequisite(s): 104-112 Visual Design and 104-127 Digital Marketing Campaigns

Course Descriptions

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 Entertainment/Sports/Event Mkt or 104-161 Event Marketing

Corequisite(s): 104-169 Marketing Internship

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

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.

Prerequisite(s): 104-104 Sales Presentations

Course Descriptions

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.

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

106-110 Bus Support Prof Practice 1

1 cr

This course is the first in a series that will provide students the opportunity to explore various business support professional careers. Topics explored include career expectations, responsibilities, technical skills, employment opportunities, and professional resources.

Prerequisite(s): 103-102 Microsoft Office Suite and 106-113 Customer Service 1 and 106-114 Customer Service 2 and 106-115 Customer Service 3 and 106-121 Computer Basics 2 and 106-152 Job Search-Bus Support Prof 1

Course Descriptions

106-111 Bus Support Prof Practice 2

1 cr

This course is the second in a series that will provide students the opportunity to explore various business support professional careers and to develop a career plan. In this course students will enhance career skills, examine business etiquette, and model the level of professionalism required to be a successful business support professional.

Prerequisite(s): 106-110 Bus Support Prof Practice 1

106-112 Bus Support Prof Practice 3

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 Bus Support Prof Practice 2

106-113 Customer Service 1

1 cr

This course is the first in a series that provides students the opportunity to develop customer service skills. Students in this course will work to define customer service, identify customers and effective customer service strategies, and examine factors that impact customer service.

106-114 Customer Service 2

1 cr

This course is the second in a series that provides students the opportunity to develop customer service skills. Students in this course will examine the relationship between communication skills and quality customer service.

106-115 Customer Service 3

1 cr

This course is the third and final course in a series that will provide students the opportunity to develop skills and abilities related to providing exceptional customer service. Students in this course will develop the skills necessary to be successful in providing quality customer service in challenging situations or with difficult customers.

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

106-118 Computer Basics 1

1 cr

This course is the first in a series that provides students an opportunity to develop basic computer skills and knowledge. Topics addressed in this course include basic computer terminology and operations, the use of common computing devices and related equipment, and basic file management practices.

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)

Course Descriptions

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.

106-121 Computer Basics 2

1 cr

This course is the second and final course in a series that provides students an opportunity to develop basic computer skills required for today's working professional. Specific skills addressed in this course include use of the Internet, email functions, exploration of software, and computer troubleshooting.

Prerequisite(s): 106-118 Computer Basics 1

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

106-124 Spreadsheets 1

1 cr

This is the first course in a sequence that develops advanced skills in the use of spreadsheet software. Students will use spreadsheet software to create multi-sheet workbooks, tables and charts, and apply database features used in various situations.

Prerequisite(s): 103-102 Microsoft Office Suite

106-125 Spreadsheets 2

1 cr

This is the second course in a sequence that develops advanced skills in the use of spreadsheet software. Students will use advanced formulas, functions, and features. Students will also design spreadsheet templates used in various business situations.

Prerequisite(s): 106-124 Spreadsheets 1

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

Course Descriptions

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.

106-133 Project Planning

1 cr

In this course students will learn to plan and coordinate projects by analyzing the project planning process, identifying project planning tools and resources, investigating electronic planning tools, and constructing a project timeline.

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): 106-107 Publications and 106-116 Database and 106-122 Document Processing and 106-124 Spreadsheets 1 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

106-139 Business Presentations

2 cr

Students will learn PowerPoint including those features assessed in the MOS exam for PowerPoint. Focus is also on using layout and design software such as Publisher to create eye-appealing newsletters, brochures, flyers, forms, business cards, and other business publications. Must have working knowledge of Windows, mouse, and keyboarding skills.

Course Descriptions

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 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.

Course Descriptions

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 the final in a series that explores a broad range of job search techniques including refining job search documents, researching opportunities, compiling appropriate information for job applications, participating in interviews, and applying post-interview strategies.

Prerequisite(s): 106-152 Job Search-Bus Support Prof 1

106-156 Records Management

1 cr

In this course students will learn about records management systems and guidelines, how to select appropriate methods for data/file storage and backup, and information related to records retention.

106-158 Meeting & Event Planning

1 cr

This course focuses on preparing the learner to plan business events. Topics include aspects of the event management process such as: goal setting and objectives, establishing an event theme, planning event logistics, facility set up, and follow-up activities. Professional behaviors will be encouraged and evaluated.

Prerequisite(s): 106-133 Project Planning

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.

Course Descriptions

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

106-165 Office Equipment

1 cr

This course provides students with exposure to and/or experience in using a variety of business office equipment.

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): (106-102 Web Technologies 2 and 106-155 Job Search-Bus Support Prof 2 and 106-156 Records Management and 106-158 Meeting & Event Planning and 106-167 Office Procedures 3 and 106-169 Applied Software) and 106-100 Web Technologies 1

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): 106-125 Spreadsheets 2 and (106-107 Publications and 106-116 Database and 106-122 Document Processing and 106-124 Spreadsheets 1 and 106-130 Business Words at Work 3 and 106-172 Microsoft Outlook)

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.

Course Descriptions

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

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.

107 Information Technology

107-123 Computer & Oper Sys Concepts

3 cr

Provides a strong foundation in computer concepts and operating systems. Through lecture, demonstration, and lab exercises, students learn operating system concepts, file management, various DOS commands, Windows, and computer hardware.

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.

110-102 Civil Litigation I

3 cr

The initial procedures associated with the preliminary stages of civil litigation, including pleadings, discovery, and motions.

Course Descriptions

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)

110-104 Legal Research

3 cr

An application of legal research techniques, using traditional and computer-assisted resources.

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)

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)

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

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)

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)

Course Descriptions

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 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)

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)

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 110-103 Civil Litigation II and 110-105 Legal Writing and (110-114 Administration of Estates or 110-168 Criminal Law-Paralegal)

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 110-103 Civil Litigation II and 110-105 Legal Writing and (110-114 Administration of Estates or 110-168 Criminal Law-Paralegal)

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)

110-160 Employment Law

3 cr

Analysis of federal and state laws governing employment relationships.

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)

Course Descriptions

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)

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)

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)

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 Perform Mgmt & Empl Reward Sys

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.

Course Descriptions

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): (116-127 Employee Relations or 116-116 Employee Relations) and 116-114 Recruitment & Selection and (116-110 Employee Benefits and 116-112 Training & Development and 116-113 Human Resource Law and 116-138 Safety, Security and Risk)

Corequisite(s): 116-128 Human Resources Internship

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

Course Descriptions

116-127 Employee Relations

2 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 or 102-111 Human Resources, Intro to or 196-193 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): (116-127 Employee Relations or 116-116 Employee Relations) and 116-114 Recruitment & Selection and (116-110 Employee Benefits and 116-112 Training & Development and 116-113 Human Resource Law and 116-138 Safety, Security and Risk)

Corequisite(s): 116-115 Human Resources Capstone

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.

Course Descriptions

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.

145-105 Entrepreneurial Finance

3 cr

In this course, students will identify and evaluate various sources available for funding a small business. Students will understand financial terminology, write a loan proposal, and read, prepare and analyze a financial statement. Students will explain the importance of working capital and cash management. Students will identify startup costs, financing needs, establish credit policies, and prepare sales forecasts. Ideas in this course will be used and refined in the capstone course.

Prerequisite(s): 101-105 Accounting, Intro to or 101-111 Accounting I

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 provide excellent customer service, develop sound operational practices, and examine human resource functions such as hiring, managing, and motivating employees. Ideas in this course will be used and refined in the capstone course.

145-107 Entrepreneurial Legal Issues

2 cr

In this course, students will identify the forms of business ownership and the legal and tax implications for each. Students will explain laws covering issues such as personnel, contracts, and protection of intellectual property. Students will explain the reporting requirements for local, state, and federal agencies. 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

Course Descriptions

145-109 Entrepreneurial Capstone

4 cr

In this course, students will build a business plan. Students will develop marketing and pricing strategies, financial statements, and understand their capital needs. Students will walk away with a keen insight on their abilities as entrepreneurs.

150 IT Networking and Security

150-120 Network Diagramming

1 cr

In this course, students receive hands-on training utilizing an industry-standard computer software program to document network design, layout, and architecture. Topics include the design and documentation of local area networks (LANs), wide area networks (WANs), and all popular internetworking devices.

150-121 Network Design, Install & Tblsh

3 cr

This course promotes a structured approach to the principles and practices involved with the planning, design, installation, implementation, testing, supporting, and troubleshooting of local and wide area networks. Training includes real-world business scenarios.

Prerequisite(s): 150-153 CCNA 3: Scaling Networks and 150-180 Adv Network Oper Systems 1

150-123 IT Networking Concepts

3 cr

This course will provide strong foundational concepts that will enhance the student's understanding of workstation hardware fundamentals, operating systems fundamentals, and networking fundamentals. Through instructor lead discussions, demonstrations, and lab exercises the student will learn about the function of devices located within a workstation, learn about the devices and services that are needed for a network to function, learn how to install and configure operating systems and how to perform file management tasks in both a GUI and command line interface environments.

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.

Course Descriptions

150-143 Computer Hardware

4 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.

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

Course Descriptions

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 IT Management Concepts

2 cr

This course will provide the learner with a number of skills that are required to support end users of Information Technology hardware and software. This course will provide an overview of the functions/services provided by a help desk, develop customer support skills such as effective communication, model value-added end-user training sessions, and demonstrate effective troubleshooting techniques. In addition this course will review current trends/technology in IT, research possible careers in IT, and help students develop job search materials such as resumes, cover letters, and portfolios specifically designed for IT positions. The learner will acquire these necessary skills through class discussions, research projects, written assignments, interviews, guest speakers, and real-world scenarios.

Prerequisite(s): 150-120 Network Diagramming and 150-165 Microsoft Windows Network Adm

150-160 Network Directory Services

3 cr

Utilizing a hands-on format, this course will provide learners the foundational concepts and configuration skills necessary for the implementation, management and support of network operating systems based on Directory Service technology. Students will learn about the function and management of the Lightweight Directory Access Protocol (LDAP) database and the importance that LDAP plays within Directory Services. Specific topics include objects, naming conventions, and addressing common to Directory Services such as Active Directory, eDirectory, and NIS. Students will learn and practice important skills such as how to utilize the appropriate management techniques in each of the Directory Services to configure user information, login restrictions, security functions and the automation of the user creation process as well as other scripted administrative tasks.

Prerequisite(s): 150-150 CCNA 1: Intro to Networks and (150-123 IT Networking Concepts or 107-123 Computer & Oper Sys Concepts)

Course Descriptions

150-165 Microsoft Windows Network Adm

3 cr

This course is intended for those who need to support and/or administer various Microsoft Windows operating systems in a networked environment, including local and domain management of accounts, policies, disk resources, printers, profiles, configurations, as well as all essential networking services (DHCP, DNS and Active Directory) to support local, domain and Internet functionality. The course provides students with the knowledge and skills necessary to perform post-installation and day-to-day administration tasks in a work group or domain based client/server network environment. Prerequisites can be fulfilled with equivalent work experience.

Prerequisite(s): 150-123 IT Networking Concepts and 150-150 CCNA 1: Intro to Networks

150-170 Computer Maintenance & Support

3 cr

This course provides 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 Repair Center. Additionally, learners will perform the various administrative tasks associated with the Repair Center's operation such as product workflow tracking, inventory control and pre and post repair customer support. The lecture component of this course will prepare the learner to sit for the CompTIA A+ certification exams. Course fee includes the cost for a single attempt of the A+ Essentials (220-701) and A+ Practical Application (220-702) certification exams. The exam cost will be waived/refunded for those students taking the course who already hold a current CompTIA A+ certification.

Prerequisite(s): 150-143 Computer Hardware or 605-123 Computer Hardware or 605-109 Industrial Computer Technology

150-175 Unix System Administration

3 cr

In this course, students will learn the process of installing and configuring the Unix operating system for single- and multi-user, stand-alone, and networked operation. Startup and shutdown, backup and recovery, file system maintenance, account and process management, networking, and software installation.

Prerequisite(s): 150-123 IT Networking Concepts and 150-150 CCNA 1: Intro to Networks

150-180 Adv Network Oper Systems 1

3 cr

This course will provide the learner with the ability to manage servers and network services utilizing a variety of network operating systems common in today's IT environment. This course will provide the learner with the skills necessary to install, configure, and manage servers and network services based on Novell, Unix, and Windows network operating systems. In this course the learner will study how to install servers and how to implement hardware unique to server installations to improve fault tolerance. The learner will acquire the skills needed to configure and manage basic network services such as directory services, DHCP, DNS, FTP, and Web services. The learner will master these skills through interactive lectures, class discussions, product demonstrations, and hands-on lab activities.

Prerequisite(s): (150-162 Netware Administration or 150-160 Network Directory Services) and 150-165 Microsoft Windows Network Adm and 150-175 Unix System Administration and 150-151 CCNA 2: Routing & Switch Essen and (605-123 Computer Hardware or 150-143 Computer Hardware)

Course Descriptions

150-181 Adv Network Oper Systems 2

3 cr

This advanced course will provide the learner with the ability to manage high-level network services hosted by servers that integrate a variety of network operation systems found in today's WAN/LAN environments. This course will provide the learner with the skills necessary to maintain advanced network services based on major network operations systems used in network security, disaster recovery, network management tools, communication services, network device configuration, and content management. The learner will master these skills through interactive lectures, class discussions, product demonstrations, and lab-based scenarios. Students completing the course will be prepared to take the CompTIA Network + certification exam at the end of the course. Course fee includes the cost for a single attempt of the Network + exam.

Prerequisite(s): 150-180 Adv Network Oper Systems 1 and 150-153 CCNA 3: Scaling Networks

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.

150-183 Wireless Networking

2 cr

This course is 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): 150-151 CCNA 2: Routing & Switch Essen or 605-109 Industrial Computer Technology

150-184 Network Security

2 cr

This course will utilize a hands-on approach to teach students to design and implement network security solutions that will reduce the risk of revenue loss and vulnerability. Topics include overall security processes, security policy design and management, security technologies, products and solutions, firewall and secure router design, installation, configuration, and maintenance.

Prerequisite(s): 150-153 CCNA 3: Scaling Networks and 150-180 Adv Network Oper Systems 1

152 IT Application Dev & Web

152-101 Programming Fundamentals

3 cr

This course is designed to be a student's first programming course. It provides an introduction to fundamental computer programming concepts including: input-processing-output, if-then-else logic, for loops, and loops. Students use pseudo code and flowcharting tools to build problem-solving skills. Programming concepts are applied and problem-solving skills are practiced as students complete a variety of programming exercises using the JavaScript programming language.

Course Descriptions

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

In this course you will learn the Visual Basic or C# language using ADO.NET for database interaction, develop subs and functions, and develop objects and classes.

Prerequisite(s): 152-101 Programming Fundamentals

152-105 .NET-ASP

3 cr

In this course you will explore the realm of ASP.NET, which is the web application development tool for .NET. You will be introduced to ASP.NET fundamentals and explore the differences between programming in Windows and web development. You will be required to create a web-based application that will be presented at the end of the semester.

Prerequisite(s): 152-103 .NET Application Development

152-106 Operating Systems

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.

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.

152-108 Web 2 - JavaScript

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

Course Descriptions

152-114 iOS Development

3 cr

Learn to create simple iOS applications using the Xcode development tool. You will start learning the basics of both the Objective-C and Swift programming languages and apply the Cocoa Touch and Foundation environments in creating simple iOS applications. Applying these skills, you will use Objective-C and Swift to develop applications using the Sprite Kit environment.

Prerequisite(s): 152-142 OO Analysis & Design-Java

152-115 Advanced iOS Development

3 cr

Learn basic iOS programming skills such as using the Xcode development tool, accessing iOS documentation (SDK), designing and deploying applications to iOS devices, and submitting iOS applications to the App Store. Participate in discussions, demonstrations, presentations, and projects to develop intermediate iOS development skills. Explore issues surrounding software security in iOS applications. Build basic iOS applications that apply Cocoa Touch, Sprite Kit, and other iOS technologies.

Prerequisite(s): 152-114 Objective C Programming-Cocoa

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 Mobile Application Dev 1-iOS

152-126 Agile Prog w Design Patterns

3 cr

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 (developed by Ken Schwaber and Jeff Sutherland) 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

Students will write programs using the latest Sun Java release. 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. New material emphasized will include Collections, JDBC, Servlets and Java Server Pages.

Prerequisite(s): 152-142 OO Analysis & Design-Java

152-132 Database 1

3 cr

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 both the MS Access graphical user interface and SQL.

Course Descriptions

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 a first course in object-oriented programming. 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 Information Technology 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 OO Analysis & Design-Java 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 and 104-164 Digital Design Broadcasting

152-151 Android Development

3 cr

Learn 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 intermediate Android development skills.

Prerequisite(s): 152-129 Java Web Programming

Course Descriptions

152-159 Web Multimedia

3 cr

Create 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. Other animation tools may be explored as time permits.

Prerequisite(s): 152-108 Web 2 - JavaScript

152-161 3D Modeling 1

3 cr

Provides an introduction to 3D computer graphic creation using a sophisticated vendor graphic development package (3ds max). This course will give the student a basic understanding of the graphics package which includes modeling, texturing, lighting, and rendering 3D scenes.

152-162 3D Game/Simulation Programming

3 cr

3D Simulation Programming provides an introduction to simulation programming using an industry standard simulation engine and 3D graphic package. The student will learn how to incorporate 3D models into simulation engine to program an interactive 3D simulation.

Prerequisite(s): 152-161 3D Modeling 1 and 152-101 Programming Fundamentals

152-164 Database-Driven Web Design/Dev

3 cr

Explore topics in server-side web development using PHP. The learner will get hands-on experience in the PHP environment with database applications using PHP and MySQL, 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 3D Modeling 1

152-166 IT Developer Capstone

2 cr

This advanced course provides further hands-on experience in programming and/or 3D simulation development. Students will work in small groups to create an application or 3D simulation. Students will be required to use project management techniques during the development process.

Prerequisite(s): 152-126 Agile Prog w Design Patterns or 152-116 Mobile Application Dev 2-iOS

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

Course Descriptions

152-182 IT Developer Internship

2 cr

Students are encouraged to find an internship while enrolled in the Information Technology - Programmer Analyst program. Student interns may perform duties such as the following: programming business applications, web page design and development, database applications, systems analysis, and report writing. This internship may start any time of the year. Students are responsible for finding an internship prior to enrolling in this course. Students are required to keep the instructor apprised of work activities via email, face-to-face visits, and Blackboard discussions.

196 Supervision & Ldrship Dev

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.

Course Descriptions

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 (101-172 Business Finance and 196-129 Trends in Leadership and 196-180 Process Management)

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 designing 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 Educ

307-148 ECE: Foundations of ECE

3 cr

This course introduces you to the early childhood profession. Course competencies include: integration of strategies that support diversity and anti-bias perspectives; investigate the history of early childhood education; summarize types of early childhood education settings; identify the components of a quality early childhood education program; summarize responsibilities of early childhood education professionals; explore early childhood curriculum models.

Course Descriptions

307-151 ECE: Infant & Toddler Dev

3 cr

In this 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 and anti-bias perspectives; analyze development of infants and toddlers (conception to three years); correlate prenatal conditions with development; summarize child development theories; analyze the role of heredity and the environment; examine research-based models; examine culturally and developmentally appropriate environments for infants and toddlers.

307-152 Adm/Superv-Early CC Education

3 cr

An overview of roles and responsibilities of directors, supervisors, coordinators, and other administrators in early childhood programs. This course is the first of six courses required for the Child Care Administrator Credential Certificate.

307-165 Hlth, Safety, Nutr for Yng Chd

3 cr

Focuses on the legal and ethical responsibilities of early childhood education professionals in providing for the health, safety, and nutrition of young children. Learners examine governmental practice skills to assess indoor and outdoor environments for safety, employ universal precautions for routine care of children, respond to emergency situations, conduct health assessments, and guide children in developing healthy food habits.

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.

307-167 ECE: Hlth Safety & Nutrition

3 cr

This 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 and anti-bias perspectives; follow governmental regulations and professional standards as they apply to health, safety, and nutrition; provide a safe early childhood program; provide a healthy early childhood program; provide a nutritionally sound early childhood program; adhere to child abuse and neglect mandates; apply Sudden Infant Death Syndrome (SIDS) risk reduction strategies; incorporate health, safety, and nutrition concepts into the children's curriculum.

Corequisite(s): 307-174 ECE: Practicum 1

307-174 ECE: Practicum 1

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: document children's behavior; explore the standards for quality early childhood education; explore strategies that support diversity and anti-bias perspectives; implement activities developed by the co-op teacher/instructor; demonstrate professional behaviors; practice caregiving routines as curriculum; practice positive interpersonal skills with children; practice positive interpersonal skills with adults.

Corequisite(s): 307-167 ECE: Hlth Safety & Nutrition

Course Descriptions

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.

307-179 ECE: Child Development

3 cr

The course examines child development within the context of the early childhood education setting. Course competencies include: analyze social, cultural, and economic influences on child development; summarize child development theories; analyze development of children age three through age eight; summarize the methods and designs of child development research; analyze the role of heredity and the environment.

307-187 ECE: Children w Diff Abilities

3 cr

The course focuses on the child with differing abilities in an early childhood education setting. Course competencies include: integrate strategies that support diversity and anti-bias perspectives; provide inclusive programs for young children; apply legal and ethical requirements including, but not limited to, ADA and IDEA; differentiate between typical and exceptional development; analyze the differing abilities of children with physical, cognitive, health/medical, communication, and/or behavioral/emotional disorders; work collaboratively with community and professional resources; utilize an individual educational plan (IEP/IFSP) for children with developmental differences; adapt curriculum to meet the needs of children with developmental differences; cultivate partnerships with families who have children with developmental differences.

307-188 ECE: Guiding Child Behavior

3 cr

This course examines positive strategies to guide children's behavior in the early childhood education setting. Course competencies include: integrate strategies that support diversity and anti-bias perspectives; summarize early childhood guidance principles; analyze factors that affect the behavior of children; practice positive guidance strategies; develop guidance strategies to meet individual needs; create a guidance philosophy.

307-192 ECE: Practicum 2

3 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: Practicum 1 or 307-138 Early Childhood Practicum I

Course Descriptions

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.

307-195 ECE: Family & Community Rel

3 cr

In this course you will examine the role of relationships with family and community in early childhood education. Course competencies include: implement strategies that support diversity and anti-bias perspectives when working with families and community; analyze contemporary family patterns, trends, and relationships; utilize effective communication strategies; establish ongoing relationships with families; advocate for children and families; work collaboratively with community resources.

307-197 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

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.

307-199 ECE: Practicum 4

3 cr

In this practicum course you will learn about and apply the course competencies in an actual child care setting. Course competencies include: analyze children's growth and development based on assessment; integrate strategies that support diversity and anti-bias perspectives; promote professional behaviors and practices; implement meaningful curriculum; create respectful, reciprocal relationships; evaluate early childhood education programs for quality; explore professional options in early childhood education.

Prerequisite(s): 307-197 ECE: Practicum 3 or 307-145 Early Childhood Practicum 3

Course Descriptions

401 Air Cond, Refrig, & Heat

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

Course Descriptions

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

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

Course Descriptions

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.

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.

Course Descriptions

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

Course Descriptions

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/transaxels. 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

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

Course Descriptions

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

Course Descriptions

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

Course Descriptions

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.

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

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): 405-382 Paint Technology and 442-315A Welding for Auto Collision

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

Course Descriptions

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.

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

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.

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.

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

Course Descriptions

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

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

Course Descriptions

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 Truck 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

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

412-315 Preventive Maintenance

1 cr

This course will offer the student a chance 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

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.

Course Descriptions

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

412-380 Diesel Internship

2 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.

Prerequisite(s): 412-312 Intro to Electronic Control

413 Electricity

413-303 Electricity of EPD 1

4 cr

This course introduces the student to basic electrical theory using Ohm's Law to analyze series, parallel and combination circuits. Concepts of work, power, energy, and magnetism will be studied. Students will learn basic line construction materials such as insulator design, pole information, and wire size and resistance, with hands on practice on communication signals for lineworkers. Throughout the course there is an emphasis on safety for lineworkers.

Corequisite(s): 413-304 Electricity of EPD 2, 413-305 Basic Line Construction Lab

413-304 Electricity of EPD 2

4 cr

This course introduces the student to basic A.C. circuits and advances to A.C. circuits with induction and capacitance. The course includes A.C. parallel circuits with resistance, inductive reactance and capacitive reactance. The student will learn guying and anchoring concepts. CPR and Medic First Aid certification will also be included. Throughout the course there is an emphasis on safety for lineworkers.

Corequisite(s): 413-303 Electricity of EPD 1, 413-305 Basic Line Construction Lab

413-305 Basic Line Construction Lab

5 cr

This course introduces the student to power line construction techniques including staking/overhead line design, overhead structure specifications, overhead distribution line construction and stringing/sagging overhead line conductors. The course includes basic hydraulics and line truck operation. Ropes, knots, and splices associated with the lineworker trade will be learned and used throughout the course. Electrical connectors will also be covered. Students will learn aerial climbing tools and techniques. Students will use electrical test equipment and hand and power tools associated with the lineworker trade. Throughout the course there is an emphasis on safety for lineworkers.

Corequisite(s): 413-303 Electricity of EPD 1, 413-304 Electricity of EPD 2

Course Descriptions

413-306 EPD Power & Transformers

4 cr

This course introduces the theory of three-phase electrical power systems, including wye and delta systems. Students will study single- and three-phase transformer; construction, principles of operation, connections as well as secondary power supply systems. Skills in electrical system grounding principles and over voltage equipment will be developed. Safety topics related to electrical line work will be highlighted.

Prerequisite(s): 413-303 Electricity of EPD 1 and 413-304 Electricity of EPD 2 and 413-305 Basic Line Construction Lab

Corequisite(s): 413-307 Electric Line Apparatus, 413-308 Advanced Line Construction Lab

413-307 Electric Line Apparatus

4 cr

Introduction to electrical power line apparatus such as; over current equipment, voltage regulators and kilowatt hour meters. Components and functions of an electrical substation, underground distribution systems, street lighting equipment, along with the sources of communication interference from electrical sources. Safety related topics are included.

Prerequisite(s): 413-303 Electricity of EPD 1 and 413-304 Electricity of EPD 2 and 413-305 Basic Line Construction Lab

Corequisite(s): 413-306 EPD Power & Transformers, 413-308 Advanced Line Construction Lab

413-308 Advanced Line Construction Lab

4 cr

This is a lab class for second semester Electrical Power Distribution. Students will learn and use advanced levels of topics such as; aerial climbing, rope knots and slices, electrical connectors, electrical test equipment, as well as hand tools. Application and installation of various electrical apparatus in a lab environment is completed by the students. Overhead transmission structures are constructed, protective grounding is introduced, and live line work such as; rubber gloving and hot stick use is practiced (de-energized lines). Underground related equipment is introduced including cable terminating tools and cable locating equipment. Students will install UD cable and terminate cable. Students will also operate a modern combination trencher-cable plow. Safety for the various lab activities is stressed.

Prerequisite(s): 413-303 Electricity of EPD 1 and 413-304 Electricity of EPD 2 and 413-305 Basic Line Construction Lab

Corequisite(s): 413-306 EPD Power & Transformers, 413-307 Electric Line Apparatus

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.

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.

Course Descriptions

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.

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.

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 utilize 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 Electricity & Electrnrc)

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 Electricity & Electrnrc)

413-330 Advanced EPD Safety

1 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 Electricity & Electrnrc)

Course Descriptions

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 Electricity & Electrnrc)

413-332 Advance 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 Electricity & Electrnrc)

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 Electricity & Electrnrc)

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 Electricity & Electrnrc)

Course Descriptions

419 Indus 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

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.

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.

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

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.

Course Descriptions

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.

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.

420-199 Machine Tool Ind Study

1 cr

This course is designed to offer the student customized instruction which may include CNC, CAD/CAM, and manual machining skills and operations.

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

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.

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

Course Descriptions

420-309 CNC Lathe 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): 420-321 Manual Turning Processes and (420-322 Manual Milling Processes or 420-323 Manual Milling Machine Setup and 420-324 Manual Milling Mach Operations) and (804-360 Math for Technical Trades or 804-361 Math 10)

Corequisite(s): 420-330 Basic CNC Lathe Programming

420-310 CNC Mill 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 or 420-323 Manual Milling Machine Setup and 420-324 Manual Milling Mach Operations) and (804-361 Math 10 or 804-360 Math for Technical Trades)

Corequisite(s): 420-325 Basic CNC Mill 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

420-321 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

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

Course Descriptions

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): 420-321 Manual Turning Processes and (420-322 Manual Milling Processes or 420-323 Manual Milling Machine Setup and 420-324 Manual Milling Mach Operations)

Corequisite(s): 420-326 Adv CNC Mill & Grinding Proc

420-325A 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 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, 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.

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): 420-321 Manual Turning Processes and (420-322 Manual Milling Processes or 420-323 Manual Milling Machine Setup and 420-324 Manual Milling Mach Operations)

Corequisite(s): 420-325 Basic CNC Mill Programming

Course Descriptions

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 and 420-322 Manual Milling Processes

Corequisite(s): 420-331 Advanced CNC Turning Processes

420-330A 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 set up 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): 420-325 Basic CNC Mill Programming or 420-325A 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): 420-321 Manual Turning Processes and (420-322 Manual Milling Processes or 420-323 Manual Milling Machine Setup and 420-324 Manual Milling Mach Operations)

Corequisite(s): 420-330 Basic CNC Lathe Programming

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 Advanced CAD/CAM

3 cr

This course will provide the student with a basic knowledge of a Windows based CAD and CAM software (Solid Works and Master Cam). The purpose of this course is to utilize the software to create solid models, import and export files, create tool paths utilizing the feature based machining technologies and explore processing strategies. This course is designed to prepare the student to work with advanced technologies in the integration of Solid Works and Master Cam software.

Prerequisite(s): 420-367 3-D CAM and 420-353 CAM for CNC Lathe

Course Descriptions

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 3-D CAM

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

Corequisite(s): 420-330 Basic CNC Lathe Programming

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 3-D CAM

3 cr

Basic operation of computer-aided drafting and its links to the computer-aided machining processes used in modern manufacturing; class approach combines design and manufacture of a product.

Enrollment by instructor consent.

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

Course Descriptions

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.

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

420-380A 2-D CAM

2 cr

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. This course is intended for entry-level machine tool programmers.

Prerequisite(s): 420-325A Basic CNC Mill Programming or 420-325 Basic CNC Mill Programming

420-385 Advanced Machine Concepts

3 cr

This course will introduce the student to multi-axis machining operations, EDM machining, Swiss machining, and other advanced machining concepts. Emphasis will be placed on skill development using advanced machining processes on various CNC machine tools. The course will include a variety of machine tool set up, loading proven part programs, setting tools, adjusting offsets, and advanced machining applications.

Prerequisite(s): 420-326 Adv CNC Mill & Grinding Proc and 420-331 Advanced CNC Turning Processes and 420-367 3-D CAM

420-399 Independent Study-Machine Tool

3 cr

Students will work under the directions of the designated instructor. Projects will be based on the application of previously learned concepts and new concepts. Students will be able to have a hands-on approach.

Course Descriptions

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.

Course Descriptions

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.

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.

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.

442-199 Welding Independent Study

3 cr

This course is for the more in-depth skill refinement in SMAW, GMAW, GTAW as needed by the individual enrolled in the independent study. This independent study is for the welding teacher or technician that requires higher level training.

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

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

Course Descriptions

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

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.

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.

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): 314043 Automotive Maint Tech, 324042 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.

442-314A Related Welding, Marine

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), Gas Metal Arc Welding (GMAW), Gas Tungsten Arc Welding (GTAW), and Plastic Welding. It is a hands-on self-paced learning environment to learn basic welding skills and safe welding practices.

442-314B Related Welding for Diesel

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.

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.

Course Descriptions

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): 314051 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

442-320A Related Welding Diesel, Adv

2 cr

The purpose of this course is to help the students acquire advanced welding skills in oxyacetylene welding, Shielded Metal Arc Welding (SMAW), Gas Metal Arc Welding (GMAW), and Gas Tungsten Arc Welding (GTAW). It is a hands-on self-paced learning environment to learn advanced welding skills and safe welding practices.

Prerequisite(s): 442-314B Related Welding for Diesel

442-330 Arc & Oxy-Acetylene Welding I

1 cr

Students will learn fundamentals of welding; welding safety, welding terms, equipment, five basics of good welds, weld types, weld positions, weld quality, electrode and material identification. Students will acquire basic fundamental skills in oxy-acetylene (OAW) welding, cutting and arc (SWAW, stick) welding. Safety glasses are required.

442-335 Basic Military Weld Training

2 cr

This course is designed for military personnel to introduce welding safety, filler metal identification, weld defects, material identification, crane safety and operations, and basic weld skills development for military fabrication and repair.

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

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.

442-356 Basic GMAW Positions 2-4

3 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 all positions.

Prerequisite(s): 442-355 Basic GMAW Flat Position

Course Descriptions

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

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

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

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

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

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.

Course Descriptions

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

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

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

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): 314421 Welding, 314421 Welding - Full-time PM, 314421 Welding - Part-Time PM, 324571 Welding Fabrication

442-397 Welding Independent Study

1 cr

This course is for the skill refinement in SMAW, GMAW, FCAW and GTAW as needed by the individual enrolled in the independent study. This independent study can be used as a preparatory course for weld certification preparation.

457 Metal Fabrication

457-350 Related Advanced Processes

1 cr

This course will provide the student with an understanding and practical applications of the automated manufacturing processes used in the fabricating industry.

Course Descriptions

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

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

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

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

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

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

Course Descriptions

458 Commercial Driving

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.

458-340 Truck Driving Refresher **2 cr**

This course is designed for students with a current CDL in need of a refresher. This course includes hours of service, the 10-hour federal mandatory training (CSA2010), collision avoidance, and behind the wheel. Student must be 18 years of age and have a current CDL.

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

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

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

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

Course Descriptions

461 Small Engine & Chassis Mec

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

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

Course Descriptions

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 Mech

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.

462-115 Industrial PC Applications

2 cr

The learner will develop skills in working with PC's to connect to PLC's, update drivers, install software, backup and restore files for PLC systems. Produce basic documents for preventive maintenance, share documents, use remote access and web based tools and locate resources using internet tools.

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.

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.

Course Descriptions

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

462-121 Repair Automated Mfg Equipment

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. Course is presented in the individual study mode to allow the students flexibility in scheduling their time.

Prerequisite(s): 462-118 Industrial Electric Principles

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

462-123 Troubleshooting PLC Systems

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 will be emphasized. Motor starters, PLC operations, air logic controllers, and electropneumatic components will be investigated.

Prerequisite(s): 462-121 Repair Automated Mfg Equipment

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

462-130 Industrial Mech Prints & Doc

2 cr

This course allows the student to learn the symbols used in the maintenance industry and to put those symbols into circuits and diagrams. A unit is also given on blueprint reading consisting of basic symbols and reading the dimensions from various blueprints. Simulation software will be used to demonstrate operation of circuits and design.

Course Descriptions

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 Repair Automated Mfg Equipment and 462-122 Prev and Periodic Maintenance and (462-123 Troubleshooting PLC Systems 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 related systems. System and component troubleshooting applying top-down, divide-conquer, and backward approaches are covered. Learners will test and repair a variety of components and systems. Prerequisite(s): 462-120 Centrifugal Pumps & Alignment and (462-123 Troubleshooting PLC Systems and 419-102 Hydraulic System Operations and 419-118 Pneumatic System Operations)

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

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 Troubleshooting PLC Systems and 462-140 Piping Systems

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 Troubleshooting PLC Systems

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 Troubleshooting PLC Systems and 462-150 Building System Maintenance

Course Descriptions

462-320 Centrifugal Pumps & Alignment

4 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): 419-116 Basic Hydraulics and 419-117 Basic Pneumatics and (462-110 Mechanical Concepts or 462-310 Mechanical Concepts) and (620-130 Industrial Elec Concepts or 414-343 Industrial Electricity Concept)

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.

475-110 Frming Mthods/Bldng the Envlp

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

Course Descriptions

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

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

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

Course Descriptions

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 Framing Methods/Bldg the Envelope and 475-111 Framing Methods/Bldg the Envelope 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 Framing Methods/Bldg the Envelope and 475-111 Framing Methods/Bldg the Envelope 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 Framing Methods/Bldg the Envelope and 475-111 Framing Methods/Bldg the Envelope 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

Course Descriptions

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 Mthds/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.

501-120 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): 315091 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

Course Descriptions

501-140 Multidisciplinary Healthcare

1 cr

This is a course with students from multiple disciplines, which will promote collaboration, greater understanding of other disciplines represented, and work collaboratively in both a hybrid online learning environment and in a simulated clinical experience.

Prerequisite(s): (515-112 Respiratory Airway Management and 515-113 Respiratory Life Support) or (543-112 Nursing Advanced Skills and 543-111 Nsg: Intermed Clin Practice) or 531-912 Paramedic Medical Principles

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 501-120 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

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): 502-310 Chemical Services 1, 502-320 Nail Technology, 806-321 Salon Science

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): 502-301 Haircutting 1 and 502-310 Chemical Services 1 and 502-320 Nail Technology and 806-321 Salon Science

Corequisite(s): 502-321 Salon Services 1

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): 502-314 Chemical Services 2 and 502-322 Salon Services 2 and 502-330 Facial Services and (502-311 Hair Styling and 502-323 Salon Services 3 and 502-326 Salon Services Lab)

Corequisite(s): 102-306 Salon Business & Mktg, 502-324 Salon Services 4, 502-371 Advanced Salon Operations

Course Descriptions

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, 502-320 Nail Technology, 806-321 Salon Science

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 and 502-330 Facial Services

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 806-321 Salon Science and (502-322 Salon Services 2 and 502-330 Facial Services)

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.

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 806-321 Salon Science

Corequisite(s): 502-304 Haircutting 2

Course Descriptions

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 806-321 Salon Science

Corequisite(s): 502-330 Facial Services

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 and 502-330 Facial Services

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): 502-314 Chemical Services 2 and 502-322 Salon Services 2 and 502-330 Facial Services and (502-311 Hair Styling and 502-323 Salon Services 3 and 502-326 Salon Services Lab)

Corequisite(s): 102-306 Salon Business & Mktg, 502-305 Haircutting 3, 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 806-321 Salon Science and (502-314 Chemical Services 2 and 502-322 Salon Services 2 and 502-330 Facial Services)

Course Descriptions

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.

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 806-321 Salon Science

Corequisite(s): 502-322 Salon Services 2

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 502-330 Facial Services and 806-321 Salon Science and (502-311 Hair Styling and 502-323 Salon Services 3 and 502-326 Salon Services Lab)

Corequisite(s): 102-306 Salon Business & Mktg, 502-305 Haircutting 3, 502-324 Salon Services 4

502-591 Barbering/Cosmetology-Appren

4 cr

Course represents the related theory training required to complement the on-the-job apprentice training. The course includes hygiene, sanitation, hair cutting, waving, shampooing, hairpieces, hair straightening and relaxing, hair coloring, hair removal, manicuring, anatomy of hair, skin, and nails, and state laws and ethics of barbering and cosmetology. Total hours of the course is 288 hours.

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.

Course Descriptions

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

503-130 FireMedic Internship

2 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 503-106 Fire Inspection Services and 503-107 Fire Dept Apparatus Ops and 503-141 Special Rescue)

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.

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

503-160 FireMedic Clinical Field 2

5 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

Course Descriptions

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.

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

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

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

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.

Course Descriptions

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 Health and 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 504-705 Principles of Patrol Response 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

504-322 Interviewing

1 cr

This module is comprised of techniques of interviewing suspects, victims, witnesses, as well as preparing reports and field notes.

Restricted to students admitted to the following program(s): 305041 Crim Jus-Law Enf Academ

504-325 Traffic Law & Enforcement

1 cr

This is comprised of traffic law and enforcement, vehicle stops, and procedures of officer violator/citizenry contacts.

Restricted to students admitted to the following program(s): 305041 Crim Jus-Law Enf Academ

504-328 Traffic Accident Investigation

1 cr

This unit is comprised of the officer's role in traffic accident investigation and reporting, alcohol and beverage laws, narcotics laws victim witness assistance and crisis intervention, addressing and dealing with friendly and hostile groups, and disaster and hazardous materials preparation and planning.

Restricted to students admitted to the following program(s): 305041 Crim Jus-Law Enf Academ

504-329 Juvenile Law

1 cr

This instruction addresses the juvenile code, Wisconsin's Mental Health Act, community awareness, and crime prevention.

Restricted to students admitted to the following program(s): 305041 Crim Jus-Law Enf Academ

504-331 Professional Communications

1 cr

Topics include professional communications, facilitation, and problem solving.

Restricted to students admitted to the following program(s): 305041 Crim Jus-Law Enf Academ

504-350 Police Academy Scenario Eval

1 cr

A minimum of seven scenarios will be set up for each recruit. Students will be expected to apply all knowledge and skills learned prior to this course. An evaluation will be conducted for each scenario based on desired outcomes.

Course Descriptions

504-351 Policing in America

1 cr

Students will learn the rules and procedures of the academy and how the various elements of the criminal justice system relate as well as the importance of professionalism. Exploration of the role of law enforcement officers in a democracy along with topics to include belief system pressures, moral problems, decision-making and consequences of decision will be studied. Resources available in communities to assist law enforcement officers along with issues involved policing in a diverse society will be addressed. This course covers Wisconsin required written law enforcement agency policies and procedures.

504-352 The Legal Context

2 cr

This covers the structure of the criminal justice system, including criminal procedure. Learn the legal bases for law enforcement action such as arrest, use of force and search and seizure, as well as the limits on law enforcement activity. Students will learn the classifications of crimes and other violations including felonies, misdemeanors, and ordinance violations, and the elements of crimes listed in the criminal code. Laws and procedures that affect juveniles, including those related to taking a juvenile into custody, will be discussed.

504-353 Tactical Skills

3 cr

Students will learn the basis for and limits to use of force by Wisconsin officers including specific techniques for intervention covered in the Wisconsin system of Defense and Arrest tactics. In addition, students will learn necessary weapons handling skills and how to care for and maintain handguns. Skill development in shooting quickly, accurately, and firing under various conditions will be practiced. The basics of room tactical movement, use of cover and concealment, and application to emergency will be learned.

504-354 Relational Skills

3 cr

Students will develop writing skills for law enforcement reports. They will explore the role of communication in law enforcement, develop and apply specific professional communication skills and strategies in simulated situations. The course will examine principles, guidelines, and techniques for proper law enforcement response to people with possible mental disorders, alcohol or drug problems, and/or developmental disabilities. Legal base requirements and practical guideline for conducting emergency and protective placement of persons will be studied. Presenting effective court testimony will be simulated. Explore evolving police strategies, activities and attitudes that build effective law enforcement and community relationships, as well as problem-oriented policing.

Course Descriptions

504-355 Patrol Procedures

4 cr

Students will become familiar with Wisconsin's traffic laws and ordinances, including those related to operator licensing and vehicle registration and equipment. Students will acquire skill to enforce the complete Wisconsin Uniform Traffic Citations and (as needed) to direct and control traffic effectively. Material covered includes steps taken as first-in officer to stabilize a complex scene, investigate traffic accidents, take appropriate enforcement actions, and prepare reports. Individual will execute emergency vehicle operation including basic patrol operation, emergency vehicle response and pursuit driving. Students will study the legal basis for making vehicle contacts, techniques for conducting a threat assessment and procedure to control types of vehicle contact. The process for administering and interpreting the operation vehicle while intoxicated standardized field sobriety test (OMVWI/SFST) will be conducted. In addition, students will acquire skill in performing an initial medical assessment for injury or medical condition, provide treatment.

504-356 Investigations

2 cr

This course provides techniques and procedures necessary to interview or interrogate adult and juvenile witnesses, suspects, and victims. Students will learn how to recognize, process, and preserve physical evidence and how to respond to crime victims. Explore the dynamics of victimization and victim's rights. Students will study the statutory elements of each of the sensitive crimes and the dynamics, impacts, and investigative strategies unique to these crimes.

504-700 Health and 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.

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.

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.

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.

Course Descriptions

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.

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.

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.

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.

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, Domestic, and Report Writing.

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.

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.

Course Descriptions

- 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
- 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

Course Descriptions

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 wish to apply for law enforcement academy certification. The course will provide students specific skills and hands on training for physical fitness testing, employability skills, basic tactical and communication skills and emotional survival to prepare for success in the law enforcement certification academy and career. Must be in good physical/medical condition for fitness/sign waivers and a 2nd year Criminal Justice Program Student seeking certification.

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.

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

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): 508-101 Dental Health Safety and 508-102 Oral Anatomy, Embry, Histology and 806-177 Gen Anatomy & Physiology

Course Descriptions

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): 508-101 Dental Health Safety and 508-102 Oral Anatomy, Embry, Histology and 508-103 Dental Radiography and 806-177 Gen Anatomy & Physiology

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

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

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

Course Descriptions

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

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

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

Course Descriptions

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 Management

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

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

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

Course Descriptions

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

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

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

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

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

Course Descriptions

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

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.

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): 501-120 Medical Office Computing

Restricted to students admitted to the following program(s): 315091 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

Restricted to students admitted to the following program(s): 305341 Central Serv Technician, 315091 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

Course Descriptions

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 (501-101 Medical Terminology or 530-153 Medical Terminology I)
Corequisite(s): 509-303 Medical Asst Lab Procedures 1

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 501-120 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

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 501-120 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

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): 501-120 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): 315091 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): 315091 Medical Assistant

Course Descriptions

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): 501-120 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

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

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

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

Course Descriptions

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

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

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)

Course Descriptions

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

513-111 Phlebotomy **2 cr**

This course provides opportunities for learners to perform routine venipuncture, routine capillary puncture, and special collection procedures. The student must be a high school graduate (or equivalent) 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. You will review regulatory compliance requirements and certification and continuing education programs.

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.

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

Course Descriptions

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

Corequisite(s): 513-151 Clinical Experience 1

513-131 Clinical Chemistry 1

3 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 or 806-101 Biochemistry) and (806-177 Gen Anatomy & Physiology or 806-140 Anatomy & Physiology I)

513-132 Clinical Chemistry 2

2 cr

A continuation of Clinical Chemistry Diagnostics, this course includes techniques and procedures for analysis using sophisticated laboratory instrumentation. Topics include pathophysiology and methodologies for hepatic, bone, cardiac markers, tumor markers, endocrine function, fetal function, miscellaneous body fluids, and toxicology.

Corequisite(s): 513-131 Clinical Chemistry 1

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

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

Course Descriptions

513-142 Clinical Exp 1

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 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, 513-143 Clinical Exp 2, 513-144 Clinical Experience 3

513-143 Clinical Exp 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 vary based on staffing at clinical sites.

Corequisite(s): 513-130 Advanced Hematology, 513-142 Clinical Exp 1, 513-144 Clinical Experience 3

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

513-145 MLT Seminar

3 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.

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

Course Descriptions

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

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.

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

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

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

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

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

Course Descriptions

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

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

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)

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

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

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

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

Course Descriptions

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

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

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

517 Renal Dialysis

517-302 Renal Failure & Support Ther

3 cr

This course explores the pathological changes and/or conditions of the renal system and the effects of these changes on the dialysis patient.

Prerequisite(s): 517-321 Principles of Renal Dialysis I

Corequisite(s): 517-304 Hemodialysis Lab Procedures, 517-322 Principles of Renal Dialysis 2, 517-323 Clinical Practicum 1, 517-324 Clinical Practicum 2

517-304 Hemodialysis Lab Procedures

1 cr

This laboratory course provides the student with hands-on experience in learning the technical skills required to function as a Renal Dialysis Technician.

Prerequisite(s): 517-321 Principles of Renal Dialysis I

Corequisite(s): 517-302 Renal Failure & Support Ther, 517-322 Principles of Renal Dialysis 2, 517-323 Clinical Practicum 1, 517-324 Clinical Practicum 2

517-320 Intro to Renal Dialysis

3 cr

This course introduces the student to health care concepts, basic patient care skills, infection control procedures, chronic illness and the grieving process, stress management, and related interpersonal skills.

Prerequisite(s): 501-101 Medical Terminology and (801-196 Oral/Interpersonal Comm or 801-351

Applied Communication) and (809-198 Intro to Psychology or 809-199 Psychology of Human Relations)

Corequisite(s): 517-321 Principles of Renal Dialysis I

Course Descriptions

517-321 Principles of Renal Dialysis I **4 cr**

This course introduces the student to normal renal anatomy and physiology, renal failure, dialysis, vascular access, and basic laboratory concepts.

Prerequisite(s): 517-320 Intro to Renal Dialysis

517-322 Principles of Renal Dialysis 2 **3 cr**

This course provides the student with in-depth applications of the principles and procedures of hemodialysis.

Prerequisite(s): 517-321 Principles of Renal Dialysis I

Corequisite(s): 517-302 Renal Failure & Support Ther, 517-304 Hemodialysis Lab Procedures, 517-323 Clinical Practicum 1, 517-324 Clinical Practicum 2

517-323 Clinical Practicum 1 **2 cr**

This course focuses on development and improvement of skills in assigned dialysis facilities.

Prerequisite(s): 517-321 Principles of Renal Dialysis I

Corequisite(s): 517-302 Renal Failure & Support Ther, 517-304 Hemodialysis Lab Procedures, 517-322 Principles of Renal Dialysis 2, 517-324 Clinical Practicum 2

517-324 Clinical Practicum 2 **3 cr**

This course focuses on development and improvement of skills in assigned dialysis facilities.

Prerequisite(s): 517-323 Clinical Practicum 1

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.

Corequisite(s): 524-140 PTA Professional Issues 1, 524-156 PTA Applied Kinesiology 1

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.

Corequisite(s): 524-156 PTA Applied Kinesiology 1

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.

Corequisite(s): 524-143 PTA Therapeutic Modalities, 524-157 PTA Applied Kinesiology 2

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.

Corequisite(s): 524-142 PTA Therapeutic Exercise, 524-157 PTA Applied Kinesiology 2

Course Descriptions

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 or 524-141 PTA 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 524-142 PTA Therapeutic Exercise and 524-157 PTA Applied Kinesiology 2

Corequisite(s): 524-144 PTA Princ of Neuro Rehab, 524-146 PTA Cardio & Integ Mgmt, 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): 524-142 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, 524-146 PTA Cardio & Integ Mgmt

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

Course Descriptions

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, 524-140 PTA Professional Issues 1

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): 524-156 PTA Applied Kinesiology 1 and 524-139 PTA Patient Interventions and 524-140 PTA Professional Issues 1 and 806-177 Gen Anatomy & Physiology

Corequisite(s): 524-142 PTA Therapeutic Exercise, 524-143 PTA Therapeutic Modalities

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

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.

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.

Course Descriptions

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

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

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.

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

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

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

Course Descriptions

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

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

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

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

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.

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

Course Descriptions

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.

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

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 (806-177 Gen Anatomy & Physiology or 806-140 Anatomy & Physiology I or 806-207 Anatomy & Physiology 1) 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 nonpregnant 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 (806-177 Gen Anatomy & Physiology or 806-140 Anatomy & Physiology I or 806-207 Anatomy & Physiology 1) and (806-179 Adv Anatomy & Physiology or 806-141 Anatomy & Physiology II or 806-208 Anatomy & Physiology 2)

Course Descriptions

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

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): 526-207 Abdominal Sonography and 526-208 OB/GYN Sonography 1

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

Course Descriptions

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

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 806-154 General Physics 1 and (804-134 Mathematical Reasoning or 804-113 College Technical Math 1A)

Corequisite(s): 526-223 Vascular Imaging 1

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

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

Corequisite(s): 526-221 Sonography Physics 1

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

Course Descriptions

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

526-290 DMS Clinical Exp Refresher

4 cr

This clinical course is designed for graduates of the Chippewa Valley Technical College Diagnostic Medical Sonography (DMS) Program. It is intended for those who wish to further advance their general sonographic abilities through additional post-graduate clinical training, reacquire technical skills following an extended lapse in scanning, or who are seeking credit for learning specific sonographic examinations not included within the program itself. Course competencies are developed based on individual and/or workplace needs. Permission from the DMS Program Director is required to register for this course, along with a pre-registration meeting to develop an individualized instructional plan. Course applicants must be able to provide proof of graduation from CVTC or another CAAHEP accredited general sonography education program. Additionally, students must secure their own clinical location prior to taking this course, and the location must meet standard DMS Program clinical eligibility requirements. Students are responsible for providing any health or background records required by the facility. Those interested should contact the DMS Program Director.

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

Course Descriptions

530-118 HC Statistics & Data Analytics

2 cr

Explores the management of medical data for statistical purposes. Focuses on descriptive statistics, including definitions, collection, calculation, compilation, and display of numerical data. Vital statistics, registries, and research are examined.

Prerequisite(s): 530-107 HIMT Fundamentals and 804-134 Mathematical Reasoning

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 (530-160 Healthcare Informatics and 530-185 Healthcare Reimbursement)

530-126 HIMT Practicum 2

3 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)

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

530-160 Healthcare Informatics

4 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 530-176 Health Data Management

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): 530-177 Healthcare Stats & Research

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.

Course Descriptions

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

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 530-197 ICD Diagnosis Coding) and 530-199 ICD Procedure Coding

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

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

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

Course Descriptions

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 530-176 Health Data Management and 530-181 Intro to the Health Record and 530-182 Human Disease for Hlth Profes and 806-177 Gen Anatomy & Physiology

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 And Health Institute CPR Professional Level CPR/AED or American Academy Of Orthopedic Surgeons Professional Rescuer CPR or Medic First Aid Basic Life Support For Professionals.

Prerequisite(s): 531-454 CPR-Healthcare Provider

531-115 RN to EMT-Basic Transition

2 cr

The RN to EMT Basic Transition Course bridges the gap between currently licensed RNs and the Emergency Medical Technician-Basic. This 48-hour course includes didactic and practical skill information utilized by pre-hospital care providers that is not a usual part of the scope of practice for a registered nurse. Covered in this training is information ranging EMS Systems, airway equipment and patient assessment to splints, spinal immobilization devices and ambulance cots-all the devices utilized by EMTs on an ambulance. Included in the course will be written exams and development competencies in practical applications; ambulance ride-along will provide the opportunity to complete the required 5 patient contacts. Upon successful completion of this course, the RN will be able to participate in the National Registry of EMT computer exam and practical exam. Prerequisites include current Healthcare Provider CPR certification and a current RN license. Proof of these must be presented at the first session.

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

Course Descriptions

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.

531-187 FireMedic Adv Emerg Resus

1 cr

By teaching Advanced Cardiac Life Support (ACLS) and Pediatric Advanced Life Support (PALS) methodologies and protocols, the course prepares the firemedic 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 with an emphasis on early intervention to prevent respiratory and/or cardiac arrest if possible.

Prerequisite(s): 531-916 Paramedic Cardiology

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

531-303 Advanced EMT

4 cr

The Advanced Emergency Medical Technician (AEMT) program expands the role and skills of the EMT. A thorough knowledge of anatomy and physiology, skills involved in obtaining intravenous access, medication administration, and fluid therapy will be included. This instructional program consists of classroom lecture, practical labs, and a requirement of field experience.

531-351 Paramedic Fundamentals

2 cr

This introductory course establishes the fundamental principles of Emergency Medical Services including the paramedic's roles and responsibilities. The course includes essential components of paramedic knowledge such as the workings of the EMS system, medical-legal aspects, ethics, medical terminology, documentation, critical thinking, and advanced assessment skills.

Restricted to students admitted to the following program(s): 315311 EMT-Paramedic

Course Descriptions

531-352 Pharmacology for Emergencies

3 cr

This course focuses on administration, absorption, distribution, metabolism, and excretion of drugs, their effects on the body, and the paramedic's roles and responsibilities related to drug therapy.

Prerequisite(s): (804-113 College Technical Math 1A or 804-141 Applied Algebra) and (806-177 Gen Anatomy & Physiology or 806-140 Anatomy & Physiology I)

531-353 Airway Management

1 cr

Course work focuses on advanced assessment of the airway, ventilation, and oxygenation. Paramedic students will be able to assess the airway and oxygenation, establish and/or maintain a patient airway, oxygenate and ventilate a patient utilizing basic and advanced skills. Much of this course is competency based.

531-354 Trauma Care

3 cr

This course is a study of the kinematics, pathophysiology, assessment, and management of common traumatic emergencies. Course work includes completion of Pre-Hospital Trauma Life Support (PHTLS).

Prerequisite(s): 531-351 Paramedic Fundamentals and 531-352 Pharmacology for Emergencies 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)

531-355 Cardiovascular Emergencies

4 cr

This course is a study of the pathophysiology, assessment, and management of common cardiovascular diseases. Course work comprises of basic and advanced electrocardiogram interpretation, including 12-lead ECGs and completion of Advanced Cardiac Life Support (ACLS).

Prerequisite(s): 806-140 Anatomy & Physiology I or 806-177 Gen Anatomy & Physiology

531-356 Maternal & Pediatric Emergencies

3 cr

Paramedic students will explore the pathophysiology, assessment, and management of common obstetrical, gynecological, pediatric, and neonatal diseases including newborn delivery and pediatric/neonatal resuscitation. Course includes completion of Pediatric Advanced Life Support (PALS) and Pediatric Education for Prehospital Professionals (PEPP).

Prerequisite(s): 531-354 Trauma Care

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, gastrointestinal, renal/urologic, toxicologic, hematologic, environmental, infectious, and behavioral.

Prerequisite(s): 531-351 Paramedic Fundamentals and 531-352 Pharmacology for Emergencies 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)

Course Descriptions

531-358 EMS Operations

1 cr

Upon completion of this course, the paramedic student will be able to safely manage the scene of an emergency. Course studies include multiple casualty incident management, rescue operations, hazardous materials, crime scene awareness, aeromedical transport, and ambulance operations.

Prerequisite(s): 531-354 Trauma Care and 531-356 Maternal & Pediatric Emergen and 531-357 Medical Emergencies and 531-371 Clinical II

531-370 Clinical I

1 cr

This clinical experience emphasizes airway assessment and management, patient assessment, and patient care. A portion of this clinical experience will be spent in the operating room practicing airway assessment and management skills while another portion will be spent in the emergency department practicing patient assessment and care.

Prerequisite(s): 531-352 Pharmacology for Emer Medicine and 531-353 Airway Management

531-371 Clinical II

3 cr

This course emphasizes the application of critical thinking skills, advanced assessment, and patient care. Clinical time will be spent in a variety of patient care settings including respiratory therapy, emergency department, critical care, labor and delivery, aeromedical transport, and EMS.

Prerequisite(s): 531-357 Medical Emergencies

531-374 Advanced Life Support Skills

1 cr

This course is designed as an update on current trends in Paramedic care for adults, pediatrics, and infants. Students will review and employ the latest skills found within the Paramedic's scope of practice and commonly performed by Paramedics on 911, inter-facility, and in-hospital patient contacts. Skills covered include: Advanced assessment techniques, basic and advanced airway management, including numerous techniques for tracheal intubation, surgical airways, and rapid sequence intubation (RSI), electrical therapy, medication administration, vascular access, chest decompression, chest tube management, arterial and central line management, emergency child birth, and GI/GU catheterization. Students must be licensed Paramedic, RNs, or Paramedic students in their final semester of the Paramedic program.

Prerequisite(s): 531-354 Trauma Care and 531-356 Maternal & Pediatric Emergen and 531-357 Medical Emergencies and 531-371 Clinical II

531-375 Internship I

3 cr

During this course, the paramedic intern will function in the prehospital setting under the supervision of the paramedic preceptor. Paramedic interns will progress from the level of observation to that of an active team member. Upon completion, students will be able to perform as an effective member of the patient care team.

Prerequisite(s): 531-354 Trauma Care and 531-356 Maternal & Pediatric Emergen and 531-357 Medical Emergencies and 531-371 Clinical II

Course Descriptions

531-376 Internship II

2 cr

This course incorporates everything the paramedic intern has learned throughout the program. During this course, the paramedic intern will progress from the role of team member to that of the patient care team leader. Upon completion, students will be able to manage the scene of an emergency, assess patients, formulate a patient care plan based upon their assessment, and initiate that plan with the same competency of a newly licensed paramedic in the prehospital environment.

Prerequisite(s): 531-375 Internship 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.

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

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

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

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 a field impression and implement a comprehensive treatment plan for a patient with a respiratory complaint.

Prerequisite(s): 531-914 Adv. Pre-hospital Pharmacology

Course Descriptions

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.

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

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.

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.

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

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

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

Course Descriptions

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

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.

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

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

534 Central Services Tech/Asst

534-300 Central Serv Tech, Fundamentals

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.

Corequisite(s): 534-302 Central Serv Tech Clinical

Course Descriptions

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): 501-101 Medical Terminology and 103-102 Microsoft Office Suite and 806-301 Basic Microbiology

Corequisite(s): 534-300 Central Serv Tech, Fundamentals

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

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

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

Course Descriptions

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

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

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

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

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

Course Descriptions

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

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

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

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

Course Descriptions

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)

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

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)

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) and 543-107 Nsg: Clin Care Across Lifespan

Course Descriptions

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) and 543-108 Nsg: Intro Clinical Care Mgt

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 and 543-105 Nursing Health Alterations

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) and 543-106 Nursing Health Promotion

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)

Course Descriptions

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)

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): 543-109 Nsg: Complex Health Alterat 1 and 543-110 Nsg: Mental Health Comm Con 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) and (806-179 Adv Anatomy & Physiology or 806-207 Anatomy & Physiology 1 and 806-208 Anatomy & Physiology 2) or 806-141 Anatomy & Physiology II

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)

Course Descriptions

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) and 543-113 Nsg: Complex Health Alterat 2

Course Descriptions

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) and (543-113 Nsg: Complex Health Alterat 2 and 543-114 Nsg: Mgt & Profess Concepts and 543-115 Nsg: Adv Clinical Practice)

543-164 Re-entry to Nurs Practice

1 cr

This course is designed for the Advanced Placement Nursing student to prepare for successful transition into the second year of the nursing program. Students are provided an opportunity to develop skills that will prepare them for the rigor of the program. Emphasis will be placed on application of the nursing process in a variety of settings. Successful completion of this course is required to progress into the program.

Restricted to students admitted to the following program(s): 105431 Nursing Adv Plcmt PN-RN

543-166 Intro to Emerg Dept Nursing

3 cr

This certification is designed to expand the student's knowledge of nursing practice in the emergency nursing environment. This hybrid course specializing in Emergency Department Nursing gives participants the essential knowledge base required for assessment and management of the emergency patient. By completion of the course, participants will not only validate competency, but also demonstrate a greater commitment to specialty and quality health care. This course focuses on determining priorities of care in the assessment of ill or injured emergency patients. Topics covered include triage, assessment, and management of shock; fluid resuscitation; and stabilization of respiratory, neurological, thoracic, and abdominal injuries, basic EKG interpretation, Introductory Advanced Cardiac Life Support (ACLS) and Trauma Nurse Core Curriculum (TNCC). This certificate may lead to enhanced career advancement potential and/or employability in an emergency area.

Prerequisite: Student currently enrolled in 4th semester Associate Degree nursing classes at CVTC or RN with active nursing license.

Prerequisite(s): 543-113 Nsg: Complex Health Alterat 2 and 543-114 Nsg: Mgt & Profess Concepts and 543-115 Nsg: Adv Clinical Practice

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.

Course Descriptions

543-301 Introduction to Geriatrics

1 cr

The Introduction to Geriatrics course will offer training in four areas of care as they relate to the geriatric population in the long-term care setting; dementia, restorative care, end of life and prevention/management of wounds. It is designed for certified nursing assistants working in long term-care to increase knowledge and understanding of the resident population, encourage life-long learning, promote the use of technology, and improve job satisfaction through the power of knowledge. Nursing Assistants who complete the course are eligible to receive the Geriatric Nursing Assistant Certificate. Corequisite(s): 543-300 Nursing Assistant

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 AODA Counseling/Interviewing and 550-110 Theories & Methods of AODA Trt and 550-122 Pharmacology-Substance Abuse and 550-154 Culturally Skilled Counseling and 809-188 Developmental Psychology and 550-111 Group Facilitation

Course Descriptions

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 AODA Assess & Treatment Plng and 550-121 Info Mgmt for Prev & Treatment and 550-122 Pharmacology-Substance Abuse and 550-160 Psychiatric Disease and AODA 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)

Course Descriptions

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 AODA Counseling/Interviewing and 550-110 Theories & Methods of AODA Trt 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.

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.

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 AODA Counseling/Interviewing and 550-110 Theories & Methods of AODA Trt and 550-122 Pharmacology-Substance Abuse 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 Psychiatric Disease and AODA

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 AODA Counseling/Interviewing and 550-110 Theories & Methods of AODA Trt and 550-111 Group Facilitation and (809-196 Intro to Sociology or 809-271 Introductory Sociology)

Course Descriptions

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 AODA Counseling/Interviewing and 550-110 Theories & Methods of AODA Trt 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

Course Descriptions

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 AODA Counseling/Interviewing and 550-110 Theories & Methods of AODA Trt

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 AODA Counseling/Interviewing and 550-110 Theories & Methods of AODA Trt and 550-122 Pharmacology-Substance Abuse 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 AODA Counseling/Interviewing and 550-110 Theories & Methods of AODA Trt and 550-122 Pharmacology-Substance Abuse and 550-154 Culturally Skilled Counseling and 809-188 Developmental Psychology

550-199 AODA Independent Study

4 cr

Students will be assigned special projects or field experience at an agency or organization in their field of study. Preapproval by instructor is required to register for this class.

601 Air Cond & Refrig Technlgy

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.

Course Descriptions

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 Principles 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): 601-161 HVAC Load Calc & Psychrometric

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

Corequisite(s): 601-117 Drafting-HVAC

Course Descriptions

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.

Course Descriptions

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 HVAC/R types of equipment will be worked on.

Prerequisite(s): 601-116 Principles of Air Conditioning

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.

601-125 Safety - HVAC

1 cr

This course provides OSHA based safety training for the HVAC industry.

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.

601-144 Solar/Wind Applications

2 cr

This course provides an overview of solar and wind applications. Student will be involved in the maintenance, service and performance of the systems. Installation of these applications will be included.

601-145 Geothermal Applications

1 cr

This course provides an overview of geothermal applications. Student will be involved in the maintenance, service and performance of the systems. Installation of these applications will be included.

Course Descriptions

601-146 Schematic Wiring-HVACR

1 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.

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 will cover the troubleshooting process as related to heating, air conditioning and refrigeration equipment and circuits. By referring to an electrical schematic the student will analyze and troubleshoot air conditioning, heating and refrigeration equipment.

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 utilized the knowledge gained in previous courses. The student will be asked to diagnose and solve a variety of electrical and mechanical problems found on actual HVAC/R equipment. These problems are also simulated using computer programs, the student completes detailed analysis on rooftops, heat pumps, supermarkets, gas furnaces, oil furnaces, and boilers.

Prerequisite(s): 601-116 Principles of Air Conditioning

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.

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

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.

Course Descriptions

605-108 Devices and Digital

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

3 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

Course Descriptions

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 Compts

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.

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.

606-104 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.

Course Descriptions

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

606-130 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 II

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

606-135 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.

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.

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.

Course Descriptions

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.

606-199 Solid Modeling 1 - Ind Study

3 cr

This course is designed to offer the student customized instruction which may include assemblies with part models and drawings.

607 Civil Engineering Technlgy

607-180 Intro to Revit Architecture

2 cr

The student will learn the fundamentals of the Revit Architectural modeling software. The student will use this software to develop a building model and then create plans, sections, elevations and details from the model.

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.

Course Descriptions

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."

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

Course Descriptions

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)

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.

Course Descriptions

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)

Course Descriptions

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.

Course Descriptions

620 Electromechanical Technlgy

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.

Course Descriptions

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 620-193 Electronic Software Applic

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.

Course Descriptions

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 Compts) 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): 620-156 Industrial Electronics II and 605-108 Devices and Digital

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 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 Mfg Tech

623-100 Principles of Industrial Eng

3 cr

Emphasis will be on the importance of increasing productivity in an organization. Methods used in problem-solving in areas such as facilities layout, material handling, quality assurance, operations planning, project management, work analysis, and management systems will be studied.

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 will explore the materials used for modern manufacturing. The course explores how atomic bonds and molecular influence the properties of metals, ceramics, polymers, and semiconductors. Related topics include crystal lattice structure, defects, diffusion, stress, and strain.

Course Descriptions

623-110 Haz Analysis & Crit Cntrl Pts

2 cr

This class develops knowledge to be able to identify the critical safety issues involved in the handling, processing, packaging and sanitation control for safe food products. Students will learn about current HACCP methodology and will develop record keeping and verification skills needed for the implementation and maintenance of a HACCP plan. Case studies in poultry, dairy processing, cheese, meat, and thermal vegetable processing will be examined.

Prerequisite(s): 806-115 Food Microbiology

623-111 Measurement for Engineering

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 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.

623-112 Food Analysis

2 cr

This course introduces analytical methods for determining the components of food and food contaminants. Analysis methods for determination of moisture, total solids, ash, fat, protein, carbohydrate, caloric, vitamin, and mineral content of food will be addressed. Analysis methods will include spectroscopy, chromatography, titration, and biological methods. Food contaminants and food safety will also be considered. Students completing this course should be able to understand the principles behind analytical techniques associated with food, be able to select the appropriate analytical technique, and demonstrate proficiency in the food analysis laboratory.

Prerequisite(s): 623-108 Intro to Mfg Lab Science

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.

623-118 Food Law & Packaging

2 cr

This course will examine the Food and Drug Administration and the US Department of Agriculture regulations of meat and food products in the United States and the primary responsibility for the safety of these products. Topics addressed will include other food regulating agencies, food security, genetic modifications, additives, dietary supplements, and food labeling.

Prerequisite(s): 623-108 Intro to Mfg Lab Science

623-120 Work Analysis

3 cr

Tools and techniques of the time study technician; elements of work, the work place, ergonomics, psychological environment; interpretation of the law of motion economy, division-of-accomplishment concept; quantitative techniques, line balancing.

623-125 Statistical Process Control

3 cr

The Deming philosophy utilizes statistical techniques to analyze and improve the quality of manufactured goods; statistical concepts enabling operators and managers to make data based quality and productivity improvement decisions.

Course Descriptions

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.

623-131 Blueprint Reading & Geom Toler

2 cr

Engineering language used on blueprints; interpretation of blueprints; good communication between designer and machinist-manufacturer; use and interpretation of geometric dimensioning on engineering drawings.

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

623-156 Facil Layout & Mat Handling

3 cr

Essential elements of plant layout and materials handling; material flow; design of physical arrangement of industrial facilities from individual workplace to comprehensive plant layout.

623-161 Tech Problems-Ind Eng Tech

3 cr

Independent study of appropriate approved topic; final written report required.

625 Quality Interdisciplinary

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.

Course Descriptions

635 Nanotechnology

635-100 Fundamentals of Nanoscience

3 cr

This course will provide an introduction to the history, tools, materials, and current and emerging applications of Nanotechnology. This will include the study of electron microscopes, scanning probe microscopes and nanomaterials such as carbon nanotubes. The application of Nanotechnology to fields such as electronics, advanced materials, energy, biology, and agriculture will be studied.

Prerequisite(s): 806-134 General Chemistry or 806-245 Principles of Gen Chemistry 1

Restricted to students admitted to the following program(s): 106351 Nano Engineering Tech

635-103 Lab Science Instrumentation

2 cr

This course will train students to operate common laboratory instruments used in high technology laboratories. Instruments will include spectroscopy, microscopy and metrology. Instruments used in biological laboratories will also be introduced such as electrophoresis and polymerase chain reaction thermocyclers. Spectroscopy equipment will include ultraviolet, visible, infrared and X-ray. Microscopy will include optical microscopy, electron microscopy and scanning probe microscopy. Other forms of metrology such as reflectometry and profilometry will be included. Students will also learn how to prepare samples for analysis.

635-112 Micro & Nano Fabrication Lab

2 cr

This lab covers the basic process steps to make top-down micro and nano scaled structures. Specific topics include oxidation, photolithography, electron beam lithography, chemical vapor deposition, etching, rapid thermal annealing, wet chemical etching, and plasma etching. Students will build a micro mechanical structure as part of the lab.

635-114 Biotechnology Lab

2 cr

This lab will cover particle formation and size measurement; aerosol sampling; optical and condensation counters; and fabrication and testing of an electrophoresis biochip.

635-118 Intro to Biotechnology

3 cr

This class examines the structure and function of the cell at the nanoscale. Topics include catalysis and biosynthesis, protein structure and function, genomics, gene manipulation, cell membrane structure and transport, cell communication, motor proteins and cancer. Emphasis will be on how cellular processes relate to bioMEMS, lab on a chip, sensors, diagnostics and biomedical devices.

635-119 Introduction to MEMS

3 cr

Micro-Electro-Mechanical Systems (MEMS) are microscopic moving devices manufactured using computer chip fabrication methods. They have a wide variety of applications including in air bag collision sensors, digital projectors, optical communications, chemical sensors. Students will continue their experience in microfabrication and microelectronics manufacturing to design and manufacture MEMS in the cleanroom.

Course Descriptions

635-199 Nano Independent Study

4 cr

This course is designed to give the student an opportunity to research an area of nanoscience production and micro electromechanical systems and microfluidic devices that is not of the regular curriculum. The student learning plan, including required reports and projects, are developed in conjunction with the instructor.

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 is an introduction to processes of technical and professional communication, emphasizing application of rhetorical principles and problem-solving strategies to various products central to the workplace writing.

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 and product testing. Students will perform usability testing and conduct studies to collect data.

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

Course Descriptions

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 using a variety of methods, including instructional design strategies, electronic performance support systems, and information systems theories.

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 (SEO) 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

This course will cover communication devices used in persuasive writing, internal communication, and media relations. Students will use these devices, along with basic design theory and software, to create the type of publications most widely required in workplace writing.

Prerequisite(s): 801-136 English Composition 1 or 801-195 Written Communication or 801-219 English Composition 1

699-137 Product Documentation

3 cr

This course explores developer documentation as well as end user documentation. Documenting stable concepts, producing agile documents, anticipating customer needs, choosing communication modes, and utilizing audience analysis will be studied.

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.

Corequisite(s): 699-139 Professional Comm Internship

Course Descriptions

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): 102-188 Project Management and (699-107 Professional/Technical Writing and 699-115 Editing and Proofreading)

Corequisite(s): 699-138 Professional Comm Capstone

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.

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.

Prerequisite(s): 801-136 English Composition 1 or 801-195 Written Communication or 801-219 English Composition 1

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)

801-195 Written Communication

3 cr

Develops writing skills which include prewriting, drafting, revising, and editing. A variety of writing assignments are designed to help the learner analyze audience and purpose, research and organize ideas, and format and design documents based on subject matter and content. It also develops critical reading and thinking skills through the analysis of a variety of written documents.

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

Course Descriptions

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 "C".

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.

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.

Prerequisite(s): 801-219 English Composition 1 or 801-136 English Composition 1 or 801-195 Written 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.

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)

Course Descriptions

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.

Prerequisite(s): 801-219 English Composition 1 or 801-136 English Composition 1 or 801-195 Written Communication

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.

Prerequisite(s): 801-136 English Composition 1 or 801-195 Written Communication or 801-219 English Composition 1

801-243 American Literature to 1865

3 cr

Examines writings of the Colonial through the Civil War periods, including Native American traditions.

Prerequisite(s): 801-219 English Composition 1 or 801-136 English Composition 1 or 801-195 Written Communication

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.

Course Descriptions

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

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.

Course Descriptions

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.

804 Mathematics

804-107 College Mathematics

3 cr

This course is designed to review and develop fundamental concepts of mathematics pertinent to the areas of: 1) arithmetic and algebra; 2) geometry and trigonometry; and 3) probability and statistics. Special emphasis is placed on problem solving, critical thinking and logical reasoning, making connections, and using calculators. Topics include performing arithmetic operations and simplifying algebraic expressions, solving linear equations and inequalities in one variable, solving proportions and incorporating percent applications, manipulating formulas, solving and graphing systems of linear equations and inequalities in two variables, finding areas and volumes of geometric figures, applying similar and congruent triangles, converting measurements within and between U.S. and metric systems, applying Pythagorean Theorem, solving right and oblique triangles, calculating probabilities, organizing data and interpreting charts, calculating central and spread measures, and summarizing and analyzing data.

Prerequisite(s): (min score of 45 on COM1 or min score of 18 on ACTM) or 834-110 Elem Algebra With Apps or (min score of Y on BA or min score of Y on BS or min score of Y on AD)

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. Prerequisite(s): (min score of 24 on COM2 or min score of 18 on ACTM) or (min score of Y on BA or min score of Y on BS or min score of Y on AD) or 834-110 Elem Algebra With Apps

804-114 College Technical Math 1B

2 cr

This course is a continuation of College Technical Math 1A. Topics include a basic introduction to graphing; computational geometry; right and oblique triangle trigonometry; and trigonometric functions on the unit circle. Emphasis will be on the application of skills to technical problems. Successful completion of or concurrent enrollment in College Technical Math 1A is required for course enrollment. Successful completion of College Technical Math 1A and College Technical Math 1B is the equivalent of College Technical Math 1.

Prerequisite(s): 804-113 College Technical Math 1A or 804-141 Applied Algebra or 804-196 College Technical Math 1A

Course Descriptions

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.

Prerequisite(s): (min score of 35 on COM2 or min score of 19 on ACTM) or 834-110 Elem Algebra With Apps or (min score of Y on BA or min score of Y on BS)

804-123 Math w Business Apps

3 cr

This course covers real numbers, basic operations, linear equations, proportions with one variable, percents, simple interest, compound interest, annuity, apply math concepts to the purchasing/buying process, apply math concepts to the selling process, and basic statistics with business/consumer applications.

Prerequisite(s): (min score of 30 on COM1 or min score of 17 on ACTM) or 834-109 Pre-Algebra or (min score of Y on BA or min score of Y on BS or min score of Y on AD)

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.

Course Descriptions

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): (min score of 18 on ACTM or min score of 25 on COM2 or min score of 045 on ACCE or min score of 2.1 on GPAH) or 804-134 Mathematical Reasoning or 804-118 Interm Algebra w Apps 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): (min score of 30 on COM2 or min score of 19 on ACTM or min score of 051 on ACCE or min score of 2.8 on GPAH) or 804-218 Algebra Success or 804-118 Interm Algebra w Apps or (min score of Y on BS or min score of Y on BA)

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 Y on BA or min score of Y on BS)

Course Descriptions

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): (min score of 25 on COM2 or min score of 18 on ACTM or min score of 045 on ACCE or min score of 2.1 on GPAH) or (min score of Y on BS or min score of Y on BA)

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 25 on ACTM or min score of 43 on COM3 and min score of 40 on COM4) 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

804-360 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.

804-361 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

Course Descriptions

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.

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 and 804-114 College Technical Math 1B) or 804-115 College Technical Math 1 or 804-134 Mathematical Reasoning

Course Descriptions

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 & Trigonometry 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 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)

Course Descriptions

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

806-225 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.

Course Descriptions

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): (min score of 39 on COM2 or min score of 19 on ACTM) and (min score of 80 on COMR or min score of 19 on ACTR) or min score of 19 on ACTS or 836-133 Prep for Basic Chemistry or (min score of Y on BA or min score of Y on BS)

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.

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 (806-179).

Course Descriptions

806-321 Salon Science

2 cr

This course includes a basic introduction to chemical concepts of matter, properties, elements, compounds, classification of matter, and chemical reactions. Oxidation, acids and bases, pH, the solution process, and how these all relate to the spa and beauty industry, the biochemistry of proteins, lipids, carbohydrates, and other organic molecules and how they specifically relate to hair, skin, and nails. The nature cells, cell reproduction, melanin, and how chemical products such as lotions, shampoos, conditioners, etc., interact with these systems will be studied. Also examined will be the physical concepts of light and color and the electromagnetic spectrum, and its effects on the human body. Also, basic electricity, electrical safety, and energy conservation within the spa/salon will be examined. Corequisite(s): 502-301 Haircutting 1, 502-310 Chemical Services 1, 502-320 Nail Technology

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.

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 Electricity & 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 Electricity & 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.

Course Descriptions

808 Reading

808-114 Integrated Reading and Writing

3 cr

Students develop reading and writing skills necessary to be successful college students by analyzing written texts and developing descriptive, narrative, expository, and persuasive writing skills using those written texts as models.

809 Social Science

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.

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. Prerequisite(s): 809-198 Intro to Psychology or 809-251 General 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.

Course Descriptions

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.

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.

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.

Course Descriptions

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.

809-225 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 presidency, 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.

Course Descriptions

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.

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.

Course Descriptions

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.

890-205 Academic Success Strategies

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.

890-298 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.



cvtc.edu

Campuses in Chippewa Falls, Eau Claire, Menomonie, Neillsville, and River Falls

Chippewa Valley Technical College is an equal opportunity/access employer and educator.
For more information, please visit cvtc.edu/eo