

# CCCCRIPTIONS DESCRIPTIONS

2023-2024



# 2D Architectural Drafting Technology

10304130

2 Credits

Architectural graphic and drafting standards are applied to develop, analyze and review detailed construction documentation using emerging technological software. Techniques include the creation of the building information model, family's usage and sheet layouts.

3D Architectural Drafting Technology

10304136

2 Credits

Building upon knowledge and skills earned in 2D technology, 3D technology is employed to create images used in building powerful design presentations.

**Abnormal Psychology** 3 Credits

The course in Abnormal Psychology 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. 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.

**Abnormal Psychology** 20809237 3 Credits

Abnormal Psychology covers the definition of abnormal behavior, assessment techniques, and descriptions of psychological disorders. It examines theoretical perspectives (biological, psychological, sociocultural) and approaches to treating these disorders.

**Accounting Career Foundations** 10101170 3 Credits

Learner explores the professional expectations of the accounting field including business ethics, customer service, team work, and working collaboratively. Throughout the course the learner will develop a career plan for a professional accounting position. The career plan includes preparing an accounting specific resume and cover letter, building a professional social network profile, participating in job interviews, exploring professional experiences in the community, and exploring educational opportunities in the accounting field.

**Accounting Exploration** 10101100 3 Credits

The learner will develop skills to enhance their success in the Accounting or Accounting Assistant program. These skills include self-assessment, time management, study skills, learning styles, active reading, communication skills, and career development. Learner will review program and course competencies, course sequencing, and available college resources. An introduction to career opportunities in the accounting field will be explored.

**Accounting Principles 1** 10101114 4 Credits

This course introduces Generally Accepted Accounting Principles (GAAP). Using double-entry accounting, learners will study the accounting cycle for service and merchandising businesses. Additionally, learners will study special journals, internal controls, accounts and notes receivable and merchandise inventory.

**Accounting Principles 2** 10101124 4 Credits

This course presents basic concepts for partnerships and corporations. The learner will study accounting procedures for corporate stock, dividends, retained earnings, liabilities, investments, fixed assets, and periodic inventory. The learner will apply knowledge in the completion of two simulations.

**Accounting Principles 3** 10101126 4 Credits

Designed for Accounting majors to further develop understanding of accounting practices. This course includes an extensive application of generally accepted accounting principles (GAAP) and a study of relevant developments and pronouncements in accounting practices as they relate to ethics, budgets, preparation and interpretation of financial statements, and the valuation and presentation of accounting theories and concepts.

**Accounting Spreadsheets** 10101138 3 Credits

Using Microsoft Excel, the learner will utilize the menu structure and basic commands of an electronic spreadsheet. Spreadsheet applications will be directly related to solving accounting problems, formatting accounting information, and creating accounting reports.

**Activity Analysis and Applications** 10514173 2 Credits

Provides instruction in activity analysis with hands on experience in activities across the lifespan. Students apply the teaching / learning process and adhere to safety regulations.

Admin & Org of Health Care 10160131 3 Credits

Focuses on the administration and organization of health care delivery systems utilized in a variety of settings such as hospitals, clinics and nursing homes. Examines health care planning, regulations, political impact and major health care issues including law and ethics for the health professions. Includes brief discussion on health care systems in other industrialized countries and differences in health status and expenditures.

**Administration of Estates** 10110114 3 Credits

Each learner will demonstrate the application of the estate planning process including wills, trusts, estates and advanced directives. Students will learn the path of the probate process with the Wisconsin laws as the primary focus. This course also covers intestacy issues and probate forms and procedures used in probate administration.

Adobe Illustrator 10201109 3 Credits

Students will use a popular vector illustration program to create illustrations, logos, and graphics within a design or graphics production environment.

Adobe Photoshop 10201185 3 Credits

This course teaches photo manipulation and enhancement using the industry leading Adobe Photoshop software. Course will also cover composition images, illustration, color correction, file formats, scanning, importing into page layout documents, fixing damaged photos, understanding file size, resolution and quality and choosing correct color modes. A working knowledge of computers is required for this course, including the ability to save and organize files. This course uses Macintosh computers; previous Macintosh experience will be helpful.

Adv Anatomy & Physiology 10206179 4 Credits

Advanced Anatomy and Physiology 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.

**Adv Emergency Resuscitation** 10531918

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.

Adv. Patient Assess Principles 10531913 3 Credits

This course teaches the paramedic student to integrate scene and patient assessment findings with knowledge of epidemiology and pathophysiology to form a field impression. By utilizing a structured and organized assessment process with knowledge of anatomy, physiology, pathophysiology, life span development, and changes that occur to the human body with time, the students will learn to develop a list of differential diagnoses through clinical reasoning, along with the ability to modify the assessment as necessary to formulate a treatment plan for their patients.

**Adv. PLC Programming** 

Hardware and software found in RSLogix 5000 Programmable Logic Controllers are presented. Tag based programming will be used and applied in ladder logic programs. Other programming languages that will be explored include Function Block and Structured Text.

ADV. PRE-HOSPITAL PHARMACOLOGY 10531914 3 Credits

This course provides the paramedic student with the comprehensive knowledge of pharmacology required to formulate and administer a pharmacological treatment plan intended to mitigate emergencies and improve the overall health of the patient.

Advanced Bio-Med Internship 10605212 2 Credits

In a working clinical environment, mentored by professional biomedical technicians, students will practice typical HTM (Healthcare Technology Equipment) activities. These activities will include: observation of or assistance to working technicians, investigation/maintenance/repair of medical equipment, professional documentation of activities, and adherence to standard practices.

**Advanced Circuits** 10662105 3 Credits

Advanced circuit analysis concepts and techniques that are used by electronic engineering technologists are emphasized in this course. Advanced AC complex number-based circuit analysis techniques are applied to series-parallel circuits, superposition, complex power, nodal analysis, Thevenin's and Norton's theorems, ideal operational amplifier circuits, circuits containing equivalent circuit models of sensors and actuators, frequency response analysis, and balanced three-phase circuits. Laboratory, simulation, and documentation experiences reinforce the lecture material.

**Advanced Electronics** 10662106 3 Credits

his course covers advanced topics associated with the analysis of electronic devices and circuits. Fundamental mathematical modeling and applications of solid-state devices and operational amplifiers include device characteristics of p-n junction diodes, bipolar junction transistors (BJT), and metal oxide semiconductor field effect transistors (MOSFET); analysis of diode circuits, linear power supplies, and transistor switching circuits; and an introduction to design in the context of single-stage MOSFET amplifiers and operational amplifiers in standard configurations. Laboratory, simulation, and documentation experiences reinforce the lecture material.

30531303 Advanced EMT 4 Credits

This course expands on the EMT- Basic curriculum. Advanced patient assessment knowledge and skills will be integrated throughout course as well as critical decision making. Skills include IV access and fluid therapy as well as administration of aspirin, 50% dextrose, narcan, atrovent, epinephrine, glucagon and nitroglycerine.

10513130 2 Credits Advanced Hematology

This course explores mechanisms involved in the development of hematological disorders. Emphasis is placed upon laboratory techniques used to diagnose disorders and monitor treatment.

**Advanced IO Device Applications** 10664111 2 Credits

This course includes coverage of Advanced PLC input and output devices. Learners will integrate smart sensors, stack lights, barcode readers, and vision systems with a PLC and HMI. All devices will be integrated and controlled with a PLC. Data from these devices will be collected and displayed on an HMI and used to control output devices.

Advanced Microbiology 10513140 2 Credits

This course provides an overview of acid fast organisms, fungi, parasites, and anaerobic bacteria. The organisms, their pathophysiology, epidemiology, the diseases and conditions that they cause, laboratory methods of handling, culturing and identification will be discussed.

**Advanced Professional Selling** 10104163 3 Credits

This course focuses on a variety of strategies and techniques for professional selling including: sales presentations, exposure to the software that aids sales people, coordination with the firm's other functional areas, team selling, and negotiation. This course will help relate theory to practice and will include close work with an actual salesperson.

**Advanced Radiographic Imaging** 10526230 2 Credits

Explores the factors that impact image acquisition, display, archiving and retrieval. Guidelines for selecting exposure factors and evaluating images within digital systems are discussed. Principles of digital system quality assurance and maintenance are presented.

**Advanced Topics in Programming** 10152113 3 Credits

This course covers advanced topics in programming. A broad array of topics covered may include: object-orientated design, 3-tier design, cloud hosting, web services, algorithms, performance, software testing, and version control.

**Advanced Video Production** 10701110 3 Credits

This course will take previously acquired skills to the next level. While learning how to more critically think about media consumption, students will learn tips and tricks that will add a higher quality of production value to their projects. 4k and HD formats will be used to create videos relevant to specific fields of employment, while developing a cinematic eye towards video production. A camera is required, though students will have access to additional cameras and production accessories. There will be service learning elements to this course.

**Advanced Web Programming** 10152145 3 Credits

This is a continuation of the Web Programming course. Topics include; advanced HTML; advanced JavaScript; scripting languages like PHP and Perl; and database integration with open-source and other databases.

Agribusiness Work Based Experience 10006151

Students will be responsible for selecting and securing placement with an agribusiness in a specialty area of their choice with faculty approval. These experiences will provide the student with an opportunity to acquaint themselves with real life workplace situations. This will include periodic supervision and evaluation of performance by instructional staff and employer supervisor.

10006167 Agricultural Business Management 3 Credits

Agricultural Business Management provides learner with basic business management practices including the development of a business plan, establishment of short and long range goals, identification and implementation alternatives for reaching goals, and development of strategies to monitor progress. The importance of designing a business mission statement based on goals is emphasized.

**Agricultural Commodity Marketing** 10006172 3 Credits

Operation and use of agricultural commodity markets and institutions as applied to enterprise and firm risk management. Cash markets; futures markets and futures option markets; basis; hedging and forward pricing; price discovery; fundamental analysis; technical analysis and risk management strategies. Activities of commodity futures exchanges; the mechanics of trading futures contracts; the use of futures trading for hedging and forward pricing; and options, basis behavior, and hedging strategies for selected commodities.

American History 1607-1865 20803211 3 Credits

The origin and growth of the United States is studied. Surveys American political, economic and social development from the founding of the colonies through the civil war

American History 1865-Present 20803212 3 Credits

Introductory survey course covering political, social and cultural trends in the United States between the end of the Civil War and the present. In addition to presenting what happened in the United States during this period, the course explores the diverse sources historians use to explain the past.

3 Credits American Literature: 1865 - Present 20801218

Examines major authors and works form the late 19th century to the present in American prose, drama, and poetry.

20801217 3 Credits American Literature: Beginnings - 1865

Examines major authors and works from the early 16th to the late 19th century in American prose, drama, and poetry.

**American National Government** 20809221 3 Credits

Utilizes a systems approach to emphasize the relationships between structure and behavior. Stresses political theory and methodology. Students are encouraged to improve research and analytical skills. Includes the U.S. Constitution, elections, interest groups, parties, mass media, congress, judiciary, the presidency and bureaucracy.

Anatomy and Physiology I 20806207

Features lectures and laboratory dealing with the human body as an integrated structural and functional unit, including basic anatomical and directional terminology, fundamental concepts and principles of cell biology, histology, integumentary, skeletal, muscular, endocrine, and nervous systems, and the special senses. It includes dissection of various fresh and preserved materials as well as examination of a human cadaver. This course is the first semester of a two-semester sequence.

Anatomy and Physiology II 20806208 4 Credits

Anatomy and Physiology II features lectures and laboratory exercises dealing with the human body as an integrated structural and functional unit including the cardiovascular system, lymphatic system and immunity, respiratory system, digestive system and metabolism, urinary system, fluid/electrolyte balance and acid/base balance, and reproductive system. Note: this is the second semester course of a two-semester sequence and is not acceptable where a one-semester Anatomy and Physiology course is required.

10006113 3 Credits **Animal Science** 

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

Application of Investigations 30504502 1 Credits

Through classroom lecture, on-campus lab, and WI Department of Justice 720 Academy integration exercises students will learn and apply skills addressed in the following Phase III topics of the Department of Justice 720 Academy curriculum framework: Ethics II: Moral Reasoning and Professional Responsibility, Cultural Competence II: Fair and Impartial Policing, Interrogations, Testifying in Court, Crimes III and Physical Evidence.

Application of Traffic Response 30504507 3 Credits

Through classroom lecture, and on-campus lab and WI Department of Justice integration exercises, students will learn and apply skills addressed in the following Phase III topics from the WI Department of Justice 720 Academy curriculum framework: Traffic Law Enforcement- Core and Radar, Traffic Crash Investigations & Incident Management, Operating a Motor Vehicle While Intoxicated (OMVWI), Standardized Field Sobriety Tests (SFST), Hazardous Materials and Weapons of Mass Destruction (WMD), Incident Command Systems and NIMS, and Report Writing.

Applied Communication Skills 31801330 2 Credits

This course treats in a practical and applied manner the spectrum of communication skills necessary to function successfully in a career field with writing fundamentals, business correspondence, telephone courtesy, listening skills, and oral communication. Also job-seeking skills: resume, letter of application and interview.

Applied Math - HVAC/Refrig 31804337 2 Credits

The student will develop mathematical problem solving skills necessary to be successful in industry. The student will apply geometric, numeric, and measurement concepts to problems related to the fields of heating, air-conditioning, ventilation and refrigeration. Knowledge of fractions, percents, and geometry will be used to gain a deeper understanding of heat load, the gas laws, ductwork stretch-outs, electric power consumption, and basic trigonometry.

Applied Math - Transportation 31804336 2 Credits

The student will develop mathematical and problem solving skills necessary to be successful in industry. The student will apply geometric, numeric, and measurement concepts to problems related to the automotive trade. Knowledge of fractions, percents, and geometry will be used to gain a deeper understanding of mechanical concepts including drive ratio, engine displacement, horsepower, compression ratio and Pascal's Law.

Applied Math - Welding 31804317 1 Credits

Development of basic math skills needed to solve general problems encountered in industry. These include working with fractions and decimals, calculator operation, measurement and conversion, perimeter, area, volume, proportion and ratio, percents, and formulas.

Applied Math 1 - Wood 31804315 1 Credit

Students will develop basic math skills needed to solve general problems encountered in the carpentry trades. These include working with fractions and decimals, calculator operation, measurement and conversion, perimeter, area, volume, concrete estimation, board measure and lumber pricing concepts. This course is the first in a two-part sequence.

Applied SQL 10152118 3 Credits

This is a fundamental course in database concepts, design and implementation, for students in the Web & Software Developer Program. Students will utilize Microsoft Access to develop a general understanding and reference for relational database creation and querying. Students will then learn Structured Query Language (SQL) and utilize a database Server to create tables, write queries, and update relational databases. SQL transactions and procedures will also be implemented.

Arch Bldg Info Mgmt 10614136 2 Credits

This course is intended to introduce architectural students and experienced architectural drafters to the next generation in architectural design software. Students will study the process of blending traditional CAD files with parametric design software building information modeling methods as a means of transition. A hypothetical building project will be designed and documented to illustrate all aspects of Autodesk Revit software.

Arch Capstone 10614142 4 Credits

This advanced course offers architectural students the opportunity to incorporate content from the first three semesters while focusing on personal interests within the field of architecture. Students will begin projects as preliminary building program proposals, further refine them through the design phase, and then develop them into construction documents which could include outline specifications, material estimates and working drawings.

Arch Draft Comm 10614132 4 Credits

This course challenges the intermediate architectural student to cultivate critical thinking skills in order to solve design problems associated with commercial architecture. Procedures to prepare construction documents for projects that meet current code and accessibility requirements will be highlighted. Students will capitalize on skills acquired in previous courses to develop architectural plans, elevations, sections, schedules and details.

Arch Draft Res 10614122 4 Credits

This course combines architectural student's understanding of drafting principles with advanced design development concepts. Architectural styles, the importance of design components related to the building site and structure, as well as code requirements will be emphasized. Students will collaborate on conceptual designs of a single family residence and prepare a set of architectural working drawings using architectural design software.

Arch Practice 10614143 1 Credits

This course is designed to familiarize graduating Architectural Technology students with office procedures and to promote continuing professional development in preparation for entering the workforce. Students will arrange for guest speakers, participate in job shadowing and office tours along with attending planning meetings and continuing education seminars.

Archi Detailing 10614133 3 Credit

This course guides intermediate architectural students in the process of creating architectural detail drawings. Students will use sketching and CAD software to layout 2D and 3D details. Industry references will be used to properly identify elements, standards and sustainability parameter. Details will be properly called out and placed on construction documents in a clear and understandable manner.

THE ESSENTIAL EXPERIENCE

ArchiCAD 10614106 3 Credits

Introduction of Architectural CAD commands and drafting techniques used to produce architectural drawings. Drawings are created using basic through advanced commands, settings, editing, dimensioning and plotting methods. Techniques include the creation of the building information model, families usage and sheet layouts.

**ARRT Certification Seminar** 10526174 2 Credits

Provides preparation for the national certification examination prepared by the American Registry of Radiologic Technologists (ARRT). Emphasis is placed on the weak areas of the individual students. Simulated registry examinations are utilized.

Art History: Prehistory to Medieval 20815200 3 Credits

Surveys the development of Prehistory, Ancient through Medieval art and architecture found throughout Europe, the near East and Egypt. Emphasis is given to the form and meaning of a select group of artworks and buildings, their stylistic tendencies and respective movements in the history of art, and the socio-political and cultural contexts for these movements.

Art History: Renaissance to Modern 20815210

necessary to analyze and repair modern automated industrial equipment.

3 Credits

Survey of the development of European and American art and architecture from the time of the early Renaissance in Italy through the first quarter of the 20th century. Emphasis is given to the form and meaning of a select group of artworks and buildings, their stylistic tendencies and respective movements in the history of art and the socio-political and cultural contexts for these movements.

**Audio Productions** 10206124

This course acquaints the student with the tools and techniques of audio production; sound pickup, microphone choice, amplification, recording, syncing sound with picture, editing, distribution, and output as they apply to live audio, overdubbing, and audio for audio-visual presentations. Students will also evaluate quality level of voice recordings, music, and ambience, while they are introduced to key frame editing and the exporting of media using a variety of codecs. The practice of utilizing selection criteria for potential purchase of audio components will be covered.

**Auto College Success & Study** 32404308 1 Credits

This course provides learners with strategies to develop skills for success in college. Learners will apply self-management techniques, explore resource management strategies, practice study skills and learn about ways to improve personal effectiveness.

**Auto Occup & Bus Operations** 10404195 3 Credits

A comprehensive course in automotive business practices and regulatory requirements. Business operations including career opportunities in the automotive industry, business varieties, and employee-employer interaction and customer service. Compliance and regulations including the regulatory compliance issues required by the EPA, DOT, OSHA, DNR, Ag Dept., Trade & Consumer Protection and others.

AutoCAD Level 1 10606163 2 Credits

Students are introduced to the concepts, commands and techniques used to create two-dimensional drawings using current AutoCAD software. Topics covered are draw and modify commands, display and inquiry commands, layering, annotating, dimensioning, and symbol creation methods. Paper/model space, view ports and layouts are used for plotting.

**Automated Systems Troubleshooting** 10664109 2 Credits A systems-based troubleshooting course reflecting industry standards and methodologies. The course addresses procedures, tools, instruments, and equipment

**Automatic Transmissions** 32404355 3 Credits

A practical approach to automatic transmission theory and service. Provides functional skills on individual transmission and transaxle units. Diagnosis, repair, programming and adjustments are emphasized.

**Automation Systems Integration** 

10620164

2 Credits

This course covers the coordination and application of automation technologies into an integrated and automated manufacturing system. These technologies include PLCs, Drives, HMIs, and analog/digital modules and field devices.

32404326 **Automotive Brake Systems** 3 Credits

All aspects of safety are stressed as the course progresses through theory, construction, nomenclature and acceptable servicing procedures. A practical degree of proficiency is obtained in diagnosing, servicing and testing the complete automotive braking system and its related electrical and electronic components.

32404382 3 Credits **Automotive Climate Control** 

provides principles and test procedures to diagnose automotive heating, ventilating and air conditioning system concerns. Includes testing and repairing to current federal and state environmental standards.

Automotive Trade Simulation 32404366 3 Credits

Lab experiences enhance diagnosis and repair skills amd simulate the automotive service and repair industry.

**Basic Electrical Systems** 32404304 3 Credits

Diagnose, test, repair and replace basic automotive electrical system components. Includes an introduction to tools and equipment, automobile and shop safety and safety sheets are signed. Adequate shop time is provided for practical applications.

Basic Engineering Design 10623261 2 Credits

This project-based course introduces engineering students to engineering problem solving, group project design, budgeting, Failure Modes and Effects Analysis, project scheduling and Gantt charts, engineering design reviews, and fabrication using 3D printing. Students will be required to work in teams to propose, develop and execute a professional quality engineering design project using the aforementioned skills, including conducting a design review for an audience of outside engineering experts.

Basic Hematology 10513120 3 Credits

This course covers the theory and principles of blood cell production and function, and introduces the student to basic practices and procedures in the hematology laboratory.

Basic Immunology Concepts 10513115 2 Credits

This course provides an overview of the immune system including laboratory testing methods for diagnosis of immune system disorders, viral and bacterial infections.

Basic Industrial Controls 10620135 2 Credits

A variety of industrial control components and systems are explored. Emphasis is placed on relay control components and ladder logic applications along with three phase motors and motor starting. Photo electric and proximity sensors are introduced. Electronic overload protection and "soft" motor starting are explored. Adjustable Frequency AC motor drives are covered. Actual industrial equipment and manuals are used by students in the development and testing of practical circuits and systems. Students will interpret and create wiring diagrams.

Basic Lab Skills 10513110 1 Credit

This course explores health career options and the fundamental principles and procedures performed in the clinical laboratory. You will utilize medical terminology and basic laboratory equipment. You will follow required safety and infection control procedures and perform simple laboratory tests.

Basic Maintenance 32404313 3 Credits

Covers the diagnosis, maintenance and repair of the heating and cooling systems, tires and wheel balancing, vehicle safety, service and shop management and parts distribution. Automotive shop safety practices are also stressed.

Basic PLC Programming with Digital 10620153 2 Credits

This course introduces the concepts of digital logic and PLC Ladder Logic Programming. Digital number systems and basic logic gates are covered. Emphasis is placed on providing a foundation for the application of PLC Programming. PLC Ladder Logic programming will also be addressed using simulation software. Basic programming instructions will include bit instructions, timers/counters, and other word based instructions.

Basic Robotic Programming 10664100 2 Credits

In this course, learners are introduced to programming techniques for the Yaskawa DX200 robots. The learner examines teach pendant programming including I/O, routines, decision making, multiple axis of positional operation, and robot communication. Upon completion of the course, learners will be able to operate and program the Yaskawa DX200.

Basic Soldering 10660106 1 Credit

This course emphasizes beginning soldering techniques for students in multiple electronics programs. The course will cover basic soldering and desoldering of wires and components.

Basic Statistics 20804240 4 Credits

This course explores the collection, presentation, analysis, and interpretation of experimental results. The focus is on understanding statistical inference (confidence intervals and hypothesis testing). Emphasizes the inherent uncertainty when decisions are made based on sample data. Includes descriptive statistics, basic probability theory, sampling distributions, and the Central Limit Theorem; the binomial, normal, Student t, and chi-square distributions; 1- and 2-sample tests, linear regression, correlation, multiple samples, and selected nonparametric procedures.

BioMed Codes/Stand/Procedures 10605209 3 Credits

This course is a study of the major requirements and procedures a HTM (Healthcare Technology Management) professional follows while supporting and maintaining medical equipment. It includes investigating relevant codes, guidelines, regulations, applicable agencies, and the clinical environment. Biomedical procedures are studied and implemented, including performing equipment maintenance procedures PM (Preventative Maintenance) and some minor repairs if available. Activities & tours are carried out at local clinical facilities (when available) and training facilities.

Biomed Science Apps - Part 1 10605211 2 Credits

This course is the first of two that focuses on core biomedical skills, background information, and critical thinking through the Biomedical applications of various sciences. A basic introduction to the concepts/applications of the following topics is included: math tools, work/energy/power, heat/temperature, solids and fluids, hydraulics, pneumatics, and motors.

Biomed Science Apps - Part 2 10605215 2 Credits

This course is the second of two that focuses on core biomedical skills, background information, and critical thinking through the Biomedical applications of various sciences. A basic introduction to the concepts/applications of the following topics is included: harmonic motion/waves, electromagnetism, quantum physics, atomic physics/physical phenomena, nuclear physics, optics, and general chemistry topics.

BioMedical Networking Applications 10605205 2 Credit

A course studying the operation and maintenance of medical equipment networked information systems of a modern hospital within the HTM (Healthcare Technology Management) arena. The major topics covered are: medical networking applications, HL7, PACS, DICOM, HIS, RIS, EMR, command prompt skills, networking, telemetry, RFDI, virtualization, remote access, Linux, security topics, and medical network troubleshooting.

THE ESSENTIAL EXPERIENCE

**Bldg Estimating** 10614149 3 Credits

This course leads advanced architectural students through the estimating process to provide a framework that can be applied to various trades on different types of construction projects. Students will learn how the science of mathematics, the knowledge of building materials, and the art of interpretation of blueprints combine. Construction plans will be referenced to complete material quantity surveys that will be converted into monetary values.

10614148 3 Credits

This course familiarizes advanced architectural students with basic design procedures, system characteristics and flexibilities of mechanical and electrical systems in construction. A working-level knowledge of the principles and practices related to building electrical, plumbing, HVAC, fire protection, and telecommunications systems will be presented. Students will make connections through practical exercises and real world design problems.

10513109 4 Credits

Focuses on blood banking concepts and procedures including blood typing, compatibility testing, work ups for adverse reaction to transfusions, disease states and donor activities.

**Body Structure and Function** 10806120 3 Credits

This course is designed to provide the students with a basic study of the structure and function of the human body.

**Building Construction for Fire Protect** 10503143 3 Credits

Provides the components of building construction that relate to fire and life safety.

3 Credits **Building Science and Materials** 10614115

Students will study the concepts associated with the theory, materials, and methods used in construction to include footings and foundations, walls, floors, roofs and roof materials, exterior finishes, interior walls, ceiling and floor finishes, insulation types, vapor and air infiltration, sound protection and building codes. Additionally, student will become familiar with blueprint reading and examine all the trades associated with construction including: electrical, HVAC, and plumbing.

**Business Communication Skills** 10106119 3 Credits

This course emphasizes the principles and correct application of grammar, style, usage, and punctuation through reinforcement exercises ranging from basic to advanced levels. Introductory writing concepts required to prepare basic business letters and memos are briefly presented. Students apply basic proofreading, editing, and formatting skills to revise a variety of business documents commonly encountered in the work setting.

3 Credits **Business Correspondence** 10106123

Students will learn to write effective business letters, memos, and reports. In addition, students will learn how to properly use an office reference manual to reinforce the language arts skills needed to proofread and edit documents at an on-the-job level of proficiency. This course also contains a strong writing emphasis.

**Business Financials** 10102126 3 Credits

Students will explore how businesses build their "bottom line". In the pursuit of profitability, students will learn to maximize the financial resources of the organization. This will be accomplished by evaluating financial statements, budgets, sales forecast, and other financial metrics.

10106112 3 Credits

Focuses on appropriate formatting of business documents including letters, memorandums, reports, and tables. Students will use templates and work with forms and columns. Emphasis will also be placed on keyboarding speed.

3 Credits **Business Information Systems** 10154125

Advanced features of MS Office Excel and Word, an introduction to Computer Security, and other application software.

3 Credits 10102130 **Business Law** 

This course emphasizes the role of law in today's business environment. Students will be introduced to the sources of law, consumer protection, contracts, real and personal property law, landlord and tenant agreements, agency and employment agreements, and forms of business ownership.

**Business Management Capstone** 10102133 3 Credits

Students apply their business management knowledge to develop a portfolio that demonstrates their competence in key areas of business management, including financial analysis, human resource management, supervision, marketing, planning and budgeting, computer applications, project management, international business, and operations management. Emphasis is placed on demonstrating business management knowledge through planning and professional writing. Local business professionals review the portfolio and evaluate each student's expertise.

10102137 **Business Professionalism** 3 Credits

Students will learn strategies for adjusting to college and improving classroom performance, as well as for their career. These skills include self-assessment, time management, study skills, learning styles, active reading, communication skills and career development. The course also includes an introduction to the program course competencies and the requirements for each. Students will review course sequencing and the importance of this to their timely graduation. An in-depth use of Blackboard, student e-mail, and other technology will be introduced.

20804231 Calculus & Analytic Geometry 1 5 Credits

Designed for students of mathematics, science, and engineering. An introduction to the basic properties of limits, rate of change of functions, continuity, derivatives of algebraic and elementary transcendental functions, their products quotients and compositions, curve sketching, finding maxima and minima, and indefinite and definite integration with applications.

Calculus & Analytic Geometry 2 20804232 5 Credits

This course is designed for students of mathematics, science, and engineering. Topics covered include the techniques of integration, numerical approximation of definite integrals, applications of integration and an introduction to first order differential equations, analysis of infinite sequences and series, parametric equations and derivatives of parametric curves, polar coordinates in the plane and integrals using polar coordinates, the analytic geometry of the conic sections, an introduction to vectors in two and three dimensions, scalar and vector cross products, graphs of quadric surfaces.

Calculus 3 20804233 5 Credits

Calculus 3 is designed for students of mathematics, science, and engineering. Topics include differentiation of vectors, space curves and curvature, functions of more than one variable, level curves, level surfaces, limits, continuity, partial derivatives, total differential, tangent planes, the gradient operator, directional derivatives, multivariable chain rule, locating extrema, and saddle points, Lagrange multipliers, multiple integrals in rectangular, polar, cylindrical and spherical coordinates, transformations of multiple integrals, the Jacobian, surface area, applications of multiple integrals to geometry and mechanics, line integrals, and an introduction to vector fields.

Capstone Accounting Project 10101162 3 Credits

This project-based course is a culmination of the knowledge and skills from financial, cost, payroll accounting, case analysis, information systems, and accounting spreadsheets. The course project entails a manufacturing business, including the production and sales of durable goods. The project will include the development of organizational policies and procedures and, accounting information system with controls; establishing performance criteria and inventory; creating the master budget; maintaining a manual information system; performing financial reporting and analysis; presenting the results of business operations, and completing peer evaluations.

Capstone Design Studio 10304150 4 Credits

An exploration of advanced, student-selected interior design project(s) that convey knowledge and understanding of professional design practice. Building upon knowledge and experience earned throughout the interior design program to date, students will be critiqued on their ability to communicate their solutions as well as the quality of their work by real design professionals across the state of Wisconsin.

Capstone 10531934 2 Credits

This course provides the student with a final opportunity to incorporate their cognitive, psychomotor, and affective skills through labs and scenario-based practice and evaluations prior to taking the National Registry 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. Students will also participate in a field capstone internship as identified by CoAEMSP accreditation in which the student must be provided with an opportunity to serve as team leader in a variety of pre-hospital advanced life support emergency medical situations.

Career Development in Agriculture 10006100 2 Credits

Student will develop individual leadership and employment qualities, in addition to exploring the agricultural industry and available careers. Subjects to be covered include: personal evaluation, goal setting, career opportunities, career exploration, current issues in agriculture, employment preparation and interviewing skills. Also included are units covering workplace regulations, employment seeking and motivational styles and techniques.

Career Development 20890202 1 Credits

Provides an opportunity for students to participate in personal career development in order to promote individual growth, academic achievement and career satisfaction. It is recommended for all students as a means to clarify or validate their current and/or future career aspirations. Topics covered include a foundation of career development theory, assessment of self, understanding of the world of work, developing life/work planning skills, which includes decision-making and goal setting. These topics are presented using lectures, self-directed learning, group exercises, class discussions, guest speakers, multimedia, and panel discussions.

Case Analysis & Reporting 10101132 3 Credits

The objectives of the case method course are to provide training in systematic and analytical thinking, creative problem solving, and decision-making. Although there are a number of ways to approach a case problem, the key focus should be employing a structured system in accomplishing the object and answering relevant questions. Reporting will include written and oral reports.

Chassis Electrical & Elect Sys 32404358 3 Credits

Diagnose, test, repair and replace chassis electrical and electronic system circuits and components. Systems covered include supplemental restraint (SRS), wiper/washer, steering columns, power accessories (windows, locks, seats, mirrors, sun roofs) and instrumentation.

Children, Families and Groups 10520190 3 Credits

Students explore the human service professional's role when working with children, families and groups. Issues impacting the family system will be explored including child abuse, divorce, mental health, juvenile delinquency, bereavement and physical health problems. Students will examine models of practice and strategies for working with youth, families and adults individually and in group settings. Students learn principles and techniques needed to lead informational and supportive groups. Students practice group work skills during class.

Cisco 1: Networking Fund 10150110 3 Credits

"This course introduces the student to computer network fundamentals, including network terminology and protocols, network standards, the OSI model, IP addressing, cabling, networking components, and basic LAN design. The course is delivered using a combination of lectures, lab projects, and the Internet.

PLEASE NOTE: A Windows operating system is recommended for this course. Required software used in this course is not compatible with Mac operating system.

Cisco 2: Routing Technologies 10150120 3 Credits

"The emphasis in this course is on routing theory and router technologies. The student will examine router elements, identify the functions of the TCP/IP transport-layer protocols, configure IP addresses, monitor and verify selected access list operations, and more. The course is delivered using a combination of lectures, lab projects, and the Internet.

PLEASE NOTE: A Windows operating system is recommended for this course. Required software used in this course is not compatible with Mac operating system.

**Cisco 3: Cybersecurity Operations** 10151110 3 Credits

Cybersecurity Operations covers the knowledge and skills needed for a Security Analyst working with a Security Operations Center team. It imparts the core security skills needed for monitoring, detecting, investigating, analyzing and responding to security events in order to protect systems and organizations from cybersecurity risks, threats and vulnerabilities.

Cisco 4: Wireless and Mobile Security 10151115

The Wireless and Mobile Security course delivers the wireless knowledge and skills required to secure wireless LANs and WANs. Students will learn and implement the protocols used to configure and manage wireless networks and the technologies used to encrypt and secure the connectivity of mobile infrastructures and end user devices.

Civil Litigation 1 10110102 3 Credits

Outlines the initial stages of civil litigation including initial client contact, investigation, pleadings, and motions.

**Civil Litigation 2** 10110103 3 Credits

This course provides a continuation of civil litigation procedure to include discovery, trial, and appellate procedure.

10513116 4 Credits

Introduces clinical chemistry techniques and procedures for routine analysis using photometric, potentiometric and separation techniques. Topics in this course include pathophysiology and methodologies for carbohydrate, lipids, proteins, renal function and blood gas analysis. Additional topics include hepatic, cardiac markers, tumor markers, endocrine function, miscellaneous body fluids, toxicology, enzymes and electrolytes.

10513151 Clinical Experience 1 3 Credits

In this clinical, students will practice the principles and procedures of laboratory medicine as an entry level Medical Laboratory Technician in a clinical laboratory setting. Students will learn to operate state of the art instruments and report results on Laboratory Information Systems.

10513152 Clinical Experience 2 4 Credits

Provides continuing practice for the principles and procedures of laboratory medicine as an entry level Medical Laboratory Technician in a clinical laboratory setting. Students will learn to operate state of the art instruments and report results on Laboratory Information Systems.

Provides continuing practice for the principles and procedures of laboratory medicine as an entry-level Medical Laboratory Technician in a clinical laboratory setting. Students will learn to operate state of the art instruments and report results on Laboratory Information Systems.

Clinical Microbiology 10513133 4 Credits

This course presents the clinical importance of infectious diseases with emphasis upon the appropriate collection, handling and identification of clinically relevant bacteria. Disease states, modes of transmission and methods of prevention and control, including antibiotic susceptibility testing, will also be discussed.

Clinical/Field Experience 10531933 3 Credits

This course provides the student with the opportunity to enhance his or her learning through the practice of paramedicine in field and health care environment experiences with actual patients under the supervision of instructors or approved preceptors. Successful completion of this course requires the student to meet all clinical/field requirements leading up to the paramedic field capstone phase of education.

1 Credits 10513121

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.

20804212 4 Credits College Algebra

Includes fundamental topics covered in Intermediate Algebra with a more careful look at the mathematical details and a greater emphasis on the concept of function. Covers quadratic, polynomial, rational, exponential and logarithmic functions, equations and inequalities; the use of matrices and determinants in solving linear systems of equations, solving non-linear systems; sequences and series.

College Chemistry 1

General college chemistry which includes the topics of measurement, chemical nomenclature, chemical reactions and stoichiometry, atomic structure, gas laws, thermochemistry, chemical bonding and solution chemistry. The course is for students who need the first one of two semesters of what is typically considered freshman university level chemistry for science majors and university transfer students. Laboratory work assists in understanding chemical concepts and developing problemsolving skills.

College Chemistry 2 20806212 **5 Credits** 

College Chemistry 2 is a continuation of 20-806-209. This course covers the principles and applications of organic chemistry, reaction kinetics, equilibrium, thermodynamics, electrochemistry, coordination compounds, nuclear chemistry and environmental chemistry. Lab activities explore traditional analytical chemistry techniques, making extensive use of computer-assisted data analysis. This course involves rigorous quantitative problem solving, and a solid mathematics background is recommended

**College Mathematics** 10804107 3 Credits

algebra, geometry, trigonometry, measurement and data. Algebra topics emphasize simplifying algebraic expressions, solving linear equations and inequalities with one variable, solving proportions and percent applications. Geometry and trigonometry topics include; finding areas and volumes of geometric figures, applying similar and congruent triangles, applying Pythagorean Theorem, and solving right triangles using trigonometric ratios. Measurement topics emphasize the application of measurement concepts and conversion techniques within and between U.S. customary and metric system to solve problems. Data topics emphasize data organization and summarization skills, including: frequency distributions, central tendency, relative position and measures of dispersion. Special emphasis is placed on problem solving, critical thinking and logical reasoning, making connections, and using calculators.

College Physics 1 20806221 5 Credits

College Physics 1 is the first semester of a one-year, college-parallel, algebra- and trigonometry-based introductory physics course. Students develop a conceptual understanding of the basics of physics and are provided with practical hands-on lab experience which helps to broaden the understanding of physics. This course covers the basic properties of motion, force, energy, momentum, rotation, fluids, and heat. Thermodynamics, simple harmonic motion, waves, and sound are also covered as time allows. It stresses developing good problem-solving strategies.

**College Success Skills** 10890102 1 Credits

This course will focus on strengthening student skills on time management, note-taking, test preparation/test taking strategies, critical thinking, and other skills for promoting college success.

**College Success Workshop** 10890106

This course helps learners develop and improve their skills to be a successful college student. Learners will identify resources available to help them in college life, develop habits of mind for college success, and explore career possibilities. In addition, learners will strengthen their digital literacy skills (aka computer and technology skills) and develop participation skills for the learning environment- whether online or in a face-to-face classroom.

20890200 1 Credits **College Success** 

This course will focus on strengthening student skills on: time management, note-taking, test preparation/test taking strategies, critical thinking, and other skills for promoting college success.

College Technical Math 1A 10804113

Topics include: solving linear equations; graphing; percent; proportions; measurement systems; computational geometry; and right triangle trigonometry. Emphasis will be on the application of skills to technical problems. Successful completion of College Technical Mathematics 1A and College Technical Mathematics 1B is the equivalent of College Technical Mathematics 1.

College Technical Math 1B 10804114 2 Credits

This course is a continuation of College Technical Mathematics 1A. Topics include: performing operations on polynomials; solving quadratic and rational equations; formula rearrangement; solving systems of equations; and oblique triangle trigonometry. Emphasis will be on the application of skills to technical problems. Successful completion of College Technical Mathematics 1A and College Technical Mathematics 1B is the equivalent of College Technical Mathematics 1.

College Technical Math 2 10804116 4 Credits

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

1 Credits **Commercial Blueprint Reading** 31410339

This course is designed to provide print reading experience in heavy commercial construction. Students will study concepts regarding elements commonly found on prints of large structures. Included are types of construction, site work, structural steel construction, reinforced concrete construction and finish construction.

**Commercial Cabinetmaking** 31409325

In this course, students will study the materials and equipment used in the commercial cabinetmaking field to include: high pressure laminates, substrates, adhesives, and hardware. Students will construct various types of commercial casework and countertops in the lab.

**Commercial Design Studio** 10304134 4 Credits

Building on the skills gained in both Residential and Retail Design Studio, students will demonstrate a comprehensive understanding of the processes, techniques, and concepts used by designers to arrive at innovative and successful solutions within a commercial design environment.

**Commercial Systems** 31410360 1 Credits

In this course, students will study the materials and methods used for construction of a metal stud framed wall, hollow metal door frame installation, kick-down door frame installation, hollow metal window frame installation, and acoustical ceiling installation.

**Communications Systems** 10662138 3 Credits

This course introduces the concepts of AM/FM and digital modulations, demodulation, and transmission techniques. Topics include the frequency domain, noise effects, transmission lines, RF propagation, antennas, sampling types, multiplexing, PCM and network protocols.

**Community Corrections** 10504854 1 Credits

This course provides an examination of the theory and practice of community-based corrections. It explores traditional and contemporary practices of working with offenders from supervision, surveillance, control and competency development.

**Community Practice** 10514179 2 Credits

Explores practice options and interventions for occupation- based community practice. Students articulate the unique role of occupational therapy within the

**Community Resources and Ser** 10520102 3 Credits

This course seeks to expose the student to a wide variety of community agencies, resources, and programs through the use of guest speakers and site visits. The functions, funding, clients served, eligibility requirements, and referral procedures of the agency will be emphasized.

**Comp Support Spec Capstone** 10154132 3 Credits

Computer Support Specialist (CSS) majors complete their portfolio which demonstrates their competence in the following key areas: software, hardware, support, training, project management, networking, and staff management. Students will create a cover letter, resume, and participate in several interviews where they will gain interviewing skills while learning how to utilize their portfolio during an interview. Students will use the knowledge gained throughout the CSS program in a student-run help desk environment.

**Compensation Management** 10116172 3 Credits

Students learn to apply the principles of compensation management to maintain an organization's competitive advantage while complying with state and federal law. Topics include job analysis, descriptions, and evaluation; pay and benefits surveys; budgeting as related to compensation; and comparable worth issues.

**Compositing and Video Effects** 10206112 3 Credits

Video sweetening and effects work is one way to get a video project to the next level. In this course students will use the Adobe Creative Cloud suite of programs to create videos and scenes that would otherwise be unimaginable. 3D graphics and effects will be covered, as will advanced masking, rotoscoping, matte painting, motion tracking and effects generation. Students will also learn about the integration of 3rd party software (like CINEMA 4d) with Adobe programs. The use of software plugins will be discussed and practiced, and students will be exposed to resources that can help them develop skills beyond the scope of the class.

**Comprehensive Graphic Design** 10201156 3 Credits

This advanced course incorporates content from the first three semesters and offers designers the opportunity to deal with hardware and software issues while practicing more advanced design, illustration, and typography skills. Projects will be developed from concept stage through preflight operations. Additionally, students will troubleshoot problems that occur during electronic file preparation and pre-press stages.

**Computerized Accting Syst** 

This course applies basic accounting principles in a computerized environment using accounting business software. The integrated program includes general ledger, accounts payable, accounts receivable, inventory and payroll. The software utilized in this course requires a Windows-based PC.

**Construction Fundamentals** 10410105 2 Credits

Students study methods and materials used in construction to include footings and foundations, walls, floors, and roofs. Students will examine various insulation types and moisture and air control layers. Additionally, students will be introduced to construction documents. The safe use of the appropriate tools for each trade is covered.

**Construction Industry Basics** 10410103

This course provides an overview of the professions found within the construction industry. Students will research skills necessary for success within their chosen field and correlate to their personal strengths. Students will also learn to interpret architectural construction documents and be introduced to the assemblies that make up a building. An exploration of building science principles will provide a foundation for future coursework.

10104111

Explore how and why people behave as buyers, either business or consumer. You will determine behavior from analyzing consumer needs and wants, the process by which they are satisfied with a product or service, the environment in which the behavior occurs, and ensure post-purchase satisfaction by applying consumer behavior concepts to strategic marketing decisions. You will also examine the differences between online consumer behavior (via internet, mobile, e-commerce, and information technology) and in-person consumer behavior (via traditional methods of retail B2C and B2B sales).

**Contemporary Healthcare Practices** 10501104 2 Credits

An introduction to the culture of healthcare for students interested in working in various healthcare settings. Learners examine professionalism, interpersonal and written communication skills, problem-solving skills and patient privacy and confidentiality issues as they relate to healthcare.

**Contemporary Moral Problems** 20809262 3 Credits

In this course, after a brief introduction to philosophy, and some basic ethical theories, we shall critically examine, analyze, and discuss many different contemporary moral issues. Topics that will be covered include, but are not limited to: the treatment of non-human animals, war, the legalization of drugs, sexual morality, gun control, the death penalty, abortion, euthanasia, environmental issues, etc.

**Content and Copy Writing** 10104168 2 Credits

Explore content marketing strategies and their effectiveness; such as creation, curation, and repurposing. You will learn to write compelling copy for a variety of audiences and marketing uses, develop a business personality, tone, and voice, and get the right message to the right people through the right media. Includes optimizing headlines, taglines, call-to-actions, infographics, emoji's, hashtags, and copy for effectiveness by using keywords, semantics, credibility, and the correct word choices.

**Correctional Administration** 10504838 3 Credits

This course provides an examination of corrections organization and administration. It emphasizes managerial theory, motivation, and provides guidance on the development of a competent and appropriate supervisory, managerial, and administrative style for the leadership of correctional personnel.

Correctional Law 10504837 3 Credits

This course provides an analysis of the law governing the treatment of the accused to the convicted offender. It examines the individual rights throughout the process and provides guidance to ensure rights are protected along with potential consequences for rights violations.

**Corrections in America** 10504820 3 Credits

This course provides an overview of the field of corrections. It introduces the historical development of corrections and emphasizes many of the correctional processes from custodial/institutional placement of offenders to community based correctional programming.

**Cost Accounting** 10101149 4 Credits

This course is an introduction to cost accounting with an emphasis on the principles of job order, process, and standard cost accounting procedures. The course covers accepted procedures used in service, merchandising, and manufacturing enterprises. Accounting for materials, labor, factory overhead, standard costing, and management decision processes are studied in detail.

**CPT Coding** 10530184 3 Credits

Prepares learners to assign CPT codes, supported by medical documentation, with entry level proficiency. Learners apply CPT instructional notations, conventions, rules, and official coding guidelines when assigning CPT codes to case studies and actual medical record documentation.

**Creative Writing - Nonfiction** 20801244 3 Credits

Students merge literary techniques with the skills of reportage to develop works of creative non-fiction. Reading assignments allow students to become familiar with principles and practice of writing literary non-fiction including memoir, articles, and features. Class meetings follow a workshop format.

20801240 **Creative Writing** 3 Credits

Students learn to manage the creative process through exercises and activities that lead to short stories and poetry; drama and creative non-fiction may be addressed as well. Reading assignments allow students to become familiar with principles and practice of various genres of creative writing and classroom activities prepare students for participating in workshop discussions.

**Criminal Justice Report Writing** 10504829 3 Credits

This course provides an examination of the essential ingredients of objective, accurate, thorough, and comprehensive report writing. Specialized writing techniques are examined and demonstrated to and by students for entry level practitioner competence.

**Criminal Procedure** 10504822 3 Credits

This course provides a survey of the criminal justice process from investigation to conviction. It emphasizes sources of law governing each stage of the process and the rights of those accused and decision-making factors related to policing, courts, and corrections.

10110168 3 Credits **Criminal Procedures** 

This course focuses on the theory and practical application of criminal law and procedure. Students will acquire knowledge that will enable them to assist attorneys practicing in the field of criminal law either as prosecutors or defense attorneys.

10504827 3 Credits

This course provides an examination of criminology, including theories, basic assumptions, and definitions.

**Crop Management** 10006139 3 Credits

Course will provide the student knowledge necessary to plan, produce, protect, harvest, and store commodity crops commonly produced in Wisconsin. Specific attention will be given to variety selection, seed bed preparation, fertilization, planting, weed control, insect control, disease control, harvesting, drying, and storing of crops. Harvest losses, yield determination, and Integrated Pest Mgt. will also be included. Commodity grading, sample collection, and the calibration of yield monitors will be covered. Students will demonstrate the ability to perform a crop profitability comparison.

30090333 **Crop Management** 

This course is designed to enable the student to become acquainted with the area's major crops and approved practices dealing with the efficient growth, harvest and marketing of the harvested crops. Lessons on managing crop harvest and storage to prevent loss of product and income, interpreting production records, and utilizing emerging technology will be taught. Students will also prepare a marketing plan and investigate alternative cropping methods including organic production and cover crops. All classes in the Farm Business and Production management program include instruction on financial analysis and management of the farming operation.

**Crystal Report Writer** 10154161

Students will create and modify reports using Crystal Report Writer. Record selection, sorting, grouping, summarizing, queries, exporting to other formats, parameters, formulas and subreports are among the topics covered.

**Cultural Issues in Human Ser** 10520105

This course prepares learners to critically examine multicultural issues in our community and society. Learner will acquire a foundational understanding of key concepts including culture, multiculturalism, assimilation, pluralism, citizenship, immigration, and refugee status. Learner will gain appreciation for how these concepts reflect global processes and impact community members' lives and society.

**Cybersecurity Essentials** 10151101

Cybersecurity Essentials develops foundational understanding of cybersecurity and how it relates to information and network security. Students are introduced to characteristics of cyber crime, security principles, technologies, and procedures to defend networks and implement data confidentiality, integrity, availability and security controls on networks, servers and applications. This includes security principles, policies, e-discovery and cybersecurity laws.

12 | THE ESSENTIAL EXPERIENCE

# **Data Communications and Networking**

10662140

3 Credits

This course is an overview of fundamental concepts and technologies used in computer networks and digital communications. Network OSI Model and Internet (TCP/ IP) Model and layers will be studied including their function, protocols, and services. Topics regarding network design concepts will be covered including LAN, WLAN, WAN, and Internet topologies and functions along with associated hardware. Students will be familiar with new technologies and applications such as IoT and Cloudbased services. Communication technology and hardware including serial communication, Analog to Digital conversion, modems, routers, switches, multiplexers, and modulation waveforms will be discussed.

**Data Utilization for Business** 10102215

Students will gain exposure to various tools used to assemble, organize, and manage data sets. Emphasis will be placed on exploring how data is used to make business decisions.

10154108 **Database Concepts with SQL** 3 Credits

This course gives students an opportunity to learn basic database concepts and design principles. Students can then apply those concepts and principles in hands-on applications. They will master the concept of a relational database application by designing, populating, and joining relational tables using DBMS (database management software).

**Database Development with .NET** 10152191

This course allows students to use a .NET language with a database. Advanced topics include creation of controls, database manipulation using ADO.Net, reusable class creation and use, and integrating XML and ADO.Net.

10154145 Database Server Administration 3 Credits

This course provides students with a technical and administrative overview of installing, securing, backing up, restoring, importing/exporting, logging, monitoring and troubleshooting relational database systems. In addition to administrative functions, students will understand core database concepts which include querying, relationships, transactions, schema definitions, referential integrity, constraints and data normalization.

10660115

DC/AC 1 provides the fundamental concepts of Powers of 10 notation, an introduction to voltage, current and resistance, and their relationship expressed with Ohm's Law. This course also introduces series and parallel circuits as well as combination circuits. The course concludes with an introduction to magnetism, electromagnetism and alternating voltage and current. Circuits will be constructed in the lab using both actual components and simulation software.

DC/AC 2 10660116 3 Credits

DC/AC 2 provides the fundamental concepts of analyzing complex resistive networks with network theorems such as the superposition theorem, Theorem and Norton's Theorem, and applied trigonometric concepts. Also covered in this course is complete coverage of capacitance, inductance and transformers, as well as RC, RL and RLC circuits. The course concludes with coverage of RC and L/R time constants, resonance and filters. Circuits will be constructed in the lab using both actual components and simulation software.

**Dental & General Anatomy** 31508304 2 Credits

Prepares dental assistant students to apply fundamentals of general and dental anatomy to informed decision making and to professional communication with colleagues and patients.

**Dental Assistant Clinical - Adv** 31508311

Dental Assisting students apply skills developed in Dental Chairside- Advanced, Dental Lab Procedures, Dental Radiography- Advanced, and Dental Office Procedures in a clinical setting with patients. Emphasizes integration of core abilities and basic and advanced occupational skills.

**Dental Assistant Clinical** 31508306 3 Credits

Students apply skills developed in Dental and General Anatomy, Dental Health Safety, Dental Chairside, Dental Materials, Dental Radiography and Professionalism in a clinical setting with patients. Emphasizes integration of core abilities and basic occupational skills.

**Dental Assistant Professional** 31508307 1 Credits

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.

**Dental Chairside - Advanced** 31508308

Prepares dental auxiliary students to operate x-ray units and expose bitewing, periapical, extra 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.

**Dental Chairside** 31508302 5 Credits

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.

10508101 **Dental Health Safety** 

Prepares dental auxiliary students to respond proactively to dental emergencies, control infection, prevent disease, adhere to OSHA Standards, and safely manage hazardous materials. Students also take patient vital signs and collect patient medical / dental histories. This course is a Western Technical College System (WTCS) aligned course required in both the Dental Hygienist and Dental Assisting Programs.

**Dental Laboratory Procedures** 31508309 4 Credits

Prepares Dental Assistant students to produce alginate impressions and fabricate diagnostic models, oral appliances, temporary restorations, and custom trays. Students also polish oral appliances.

**Dental Materials** 10508113 2 Credits

Prepares dental auxiliary students to handle and prepare dental materials such as liners, bases, cements, amalgam, resin restorative materials, gypsum products, and impression materials. They also learn to take alginate impressions on manikins and clean removable appliances. This course is aligned to serve students in the Dental Hygienist and Dental Assistant programs.

**Dental Office Management** 10508120 2 Credits

Prepares dental auxiliary students to manage telephones, appointments, recall systems, and inventory. Students also develop the skills needed to process accounts receivable and payable, collections, and third party reimbursements.

**Dental Radiography - Advanced** 

Builds on principles and skills developed in Dental Radiography. Dental Assisting students expose full mouth series, extra oral and specialized radiographs on adult and child patients. Emphasis is placed on protection against x-ray hazards. Students will also process, mount, and evaluate radiographs for diagnostic value. In addition, they will use radiographs to explain dental health and treatment plans to patients.

1 Credits

**Dental Radiography** 

Prepares dental auxiliary students to operate x-ray units and expose bitewing, periapical, extra 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. Students gain further experience in exposing radiographs on patients in the clinical portion of their program. This course also provides the background in radiographic theory required for students to make informed decisions and adjustments.

**Design Analysis** 10606158 3 Credits

Design principles of certain machine elements are considered and calculations made for the determination of their size and shape. The use of CAD and CAE software for mechanical analysis will be introduced. Topics include shafts, couplings, keys, bearings, gear, belt and chain drives.

Design Field Experience/Co-op 10304133 1 Credits

Students combine classroom theory with practical, hands-on experience within an approved design-based business; gaining practical application in their field of study.

10201112 **Design Fundamentals** 

Creative ability of each student will be directed toward the layout, design and production of graphic design related projects. Through lectures, demonstrations and lab assignments, students will create and design projects utilizing a variety of materials and techniques.

**Design Problems** 10606164 4 Credits

An opportunity to integrate the knowledge & skills acquired during the program by completion of a design of a mechanical device. Project completion requires definition of the product reqmt's, analysis of the load conditions, selection of mtls, conduct stress analysis and motion simulations, prepare layouts, detailed drawings & a final written and oral report to summarize their work. Rapid prototypes of final project will be made.

**Design Team Integration** 

Students will demonstrate their understanding of project team dynamics, and culture. An exploration of collaborative communication and benchmarking to examine proposed design solutions relative to best practices and industry standards. Curriculum will focus on essentiality of high emotional intelligence for success.

Designing with Type 10201122 3 Credits

This course focuses on expanding the students application of all course material learned in Design Fundamentals. Integrating typography & visual elements through targeted real-life design projects will greatly improve students problem solving and designing abilities. Students gain experience in using the design process & analyzing their work. This course relies on the Macintosh computer as a significant tool in solving typographical problems.

**Developmental Psychology** 10809188

Developmental Psychology is the study of human development throughout the lifespan. This course explores developmental theory and research with an emphasis on the interactive nature of the biological, cognitive, and psychosocial changes that affect the individual from conception to death. Application activities and critical thinking skills will enable students to gain an increased knowledge and understanding of themselves and others.

Diesel & Heavy Equipment Internship 32412417 1 Credits

Student will be responsible to secure an internship in a Diesel or Heavy Equipment repair facility. The student can work in multiple areas of the business including parts, service reception and service repair department. This position must be approved by your program student advisor.

**Diesel Advanced Electricity** 32412412 3 Credits

This course is a practical study in the procedures associated with the diagnosis and troubleshooting of electronically controlled systems using manufacturer software and other diagnostic equipment.

**Diesel Advanced Engines** 32412409 2 Credits

This course is a practical study in the procedures associated with diagnosis and repair of electronically controlled engines and exhaust after treatment systems.

32412303 3 Credits **Diesel Basic Engines** 

This course is a practical study in performing diesel engine component familiarization and inspection.

**Diesel Electricity Fundamentals** 32412406 3 Credits

This course is a practical study introducing the student to basic fundamentals of electricity including test equipment, batteries, starting systems, charging systems, and lighting systems.

**Diesel Electricity Troubleshooting** 32412407 3 Credits

This course is a practical study in performing diagnosis and repair of cab and chassis accessories, and other electrical components.

**Diesel Engine Rebuilding** 32412408 3 Credits

This course will familiarize the student with all the internal components of a diesel engine with a major emphasis placed on disassembly, inspection, reconditioning and assembly of a variety of diesel engines used in industry. Engine component failure analysis and prevention will also be covered.

Diesel Heavy Equip Inspec & Prev Maint 32412415 3 Credits

This course is a practical study of performing preventive maintenance inspections on off road equipment. Students will learn what defects to inspect for and how to follow a preventive maintenance schedule to prevent costly repairs and unsafe conditions.

**Diesel Heavy Equipment Live Repair** 

32412416

3 Credits

This course is designed to familiarize the student with the procedures involved in the repair of on and off highway equipment. Hands-on experiences will be gained through the repair of such equipment as loaders, crawlers, graders, backhoes, trucks and many other types of equipment used in industry. The type of equipment varies and must meet the needs of the students and program.

**Diesel Heavy Equipment Powertrains** 

32412413

3 Credits

This course is a practical study in the procedures associated with diagnosis and repair of heavy equipment transmissions, differentials, final drives, drivelines, and braking systems.

Diesel Heavy Truck & Forklift Familiariz

32412405

1 Credits

This course will familiarize the student with heavy truck operation, coupling and uncoupling trailers, and forklift operations.

Diesel Hydraulic/Hydrostatic Systems

32412414

3 Credits

This course is a practical study of diagnosis, repair, and failure analysis of hydraulic and hydrostatic systems.

**Diesel Online Service Utilization** 32412403 2 Credits

This course will introduce the student to the online service information utilized by the diesel and heavy equipment industry. Students will develop the skills to search and navigate the various websites for operating instructions, measurements, specifications, system tests, repair procedures and troubleshooting procedures.

**Diesel Safety and Industry Practices** 32412404 2 Credits

This course will introduce students to the safety and legal requirements and common shop practices of the diesel and heavy equipment industry. Personal safety as well as overall shop/job site safety will be emphasized while students learn to operate shop equipment and learn basic repair techniques common to all aspects of the diesel and heavy equipment industry. Skills learned in this course will be directly applied throughout the diesel and heavy equipment technician program.

32412351 3 Credits **Diesel Truck Brake Systems** 

This course is a practical study in performing diagnosis and repair of heavy truck braking systems.

**Diesel Truck Chassis Systems** 32412402

3 Credits

This course is a practical study in performing diagnosis and repair of heavy truck chassis systems and components.

3 Credits **Diesel Truck Powertrains** 32412401

This course is a practical study in performing diagnosis and repair of heavy truck transmissions, differentials, and drivelines.

**Diesel Truck Preventive Maintenance** 32412400 1 Credits

This course is a practical study in performing heavy truck preventive maintenance inspections as well as Department of Transportation annual vehicle inspections.

**Digital Advertising** 10104176

Explore the world of advertising on the Internet through display, text, pay-per-click, mobile, email and text messages. You will learn how to initiate, manage and evaluate digital advertising effectively and efficiently.

10660132 **Digital Applications** 1 Credits

A continuation of Digital Fundamentals- this course will explore applications of some of the concepts and components introduced previously and will add other components and their application. Some applications are: D/A and A/D conversion, shift registers, timing and counting. The 555 timer and concepts of astable and monostable operation will be presented along with concepts of timing and duty cycle.

**Digital Design Components** 10104175

How do you know when to use a jpeg, pdf, tiff or gif? When do you use CMYK or RGB? What size and resolution do you need for a printed document versus a web site? You will learn all of the specifications, lingo and abbreviations that graphic designers, publishers, web designers and marketing professions use on a daily basis. You will learn the basics of print and web design components to enable you to make informed decisions.

**Digital Electronic Concepts** 10662137 4 Credits

This course provides a foundation in digital electronic device and circuits. Topics include number systems, logic gates, digital circuits simplification techniques, device specifications, digital devices such as encoders/decoders, multiplexers/de-multiplexers, programmable devices, A/D and D/A circuits and interfacing circuits and considerations

**Digital Fundamentals** 10660131 1 Credits

This course introduces the concepts of digital logic. Digital number systems and basic logic gates are covered. Emphasis is placed on providing a foundation for the application of digital logic to the use of digital applications such as D/A- A/D converters and programmable logic controllers.

10501107 2 Credits Digital Literacy for Healthcare

The focus of this course is the use of technology in healthcare. Learners use common business software applications, including word processing, presentation, spreadsheet, and databases. Communication methods using technology are addressed. Learners gain experience with using the electronic health record (EHR). Healthcare EHR security issues, social media use, and digital healthcare resources are examined.

10206119 **Digital Media Application** 3 Credits

This course will provide opportunities to fine tune production skills in a "real world" working environment. A large part of this course is community engagement based, where students will work both individually and in production teams, with real clients (local non-profit organizations), to address specific media and communication needs. They are expected to create professional quality video and media products, while assuming responsibility for client meetings, all media production and postproduction (including crew assignments), as well as proper and timely media delivery. The transition from school to doing what you love starts here.

**Digital Media Portfolio** 10206145 3 Credits

The student will learn how to prepare for industry employment. From audio production to marketing, video creation to promotions – learn how to craft and tailor your work to apply for specific media jobs. Course topics include creating an online presence, designing a resume, writing using industry buzz words, creating a demonstration reel, job interviewing techniques, and critiquing portfolio work. The student will create a portfolio- an important tool for seeking employment- that will help them stand out from the competition.

**Digital Photography** 10203125 3 Credits

Students will use digital cameras to create digital images. Basic image manipulation and output will be taught using Adobe Creative Cloud software in a Mac based environment. Topics and projects include (but are not limited to) composition, lighting, depth of field, landscapes, portraits, product photography, basic DSLR video capture, and creative production planning. Students are required to provide a camera for the course. Before beginning, you should have a basic working knowledge of your computer and its operating systems.

DisAbilities 10520118 3 Credits

DisAbilities prepares students to work with individuals and families impacted by disAbilities. A variety of disAbilities and issues common to persons with disAbilities will explored. Perspectives of disabilities that recognize disAbility as a culture and acknowledge the potential and capabilities of persons with disAabilities are offered.

**Diversity & Change Mgmnt** 10196169

Addresses changes taking place in the workforce and their affect on the supervisor and the organization. Explores a broadened view of diversity, including values, age, gender, disabilities, education and culture. Provides an action framework for the supervisor to gain advantage by blending and capitalizing on the different skills and perspectives of people and creating an organization where everyone gives his or her best.

Drawing 10201118 3 Credits

Course is designed to familiarize the student with many of the skills and techniques of drawing. Student will gain skills in capturing seen objects on paper. Student will increase observation abilities while improving his or her ability to communicate visual concepts.

32404357 **Drive Systems 1** 3 Credits

A study of the driveline component parts with an emphasis on diagnosis, maintenance and repair procedures, drive axles and shafts, bearings and seals and manual transmissions/transaxles.

**Drive Systems 2** 32404367 3 Credits

A study of the driveline component parts with an emphasis on diagnosis, maintenance and repair procedures, manual transmissions/transaxles, drive axles systems and four-wheel drive/All wheel drive systems.

**ECE: Advanced Practicum** 10307199 3 Credits

In this final 3-credit practicum course you will demonstrate competence in supporting child development through observation, assessment and implementation of teaching strategies as you work in and learn about and apply the course competencies in an actual early childhood setting. You will demonstrate a high level of skill in fostering relationships with children, families and early childhood professionals, and use skills learned in a lead teacher role to develop a career plan to transition from student to early childhood education professional.

**ECE: Child Development** 10307179 3 Credits

The 3-credit course examines child development within the context of the early childhood education setting. Course competencies include: integrate strategies that support diversity, cultural responsiveness, and anti-bias perspectives; analyze social, cultural, and economic influences on child development; summarize child development theories; analyze development of children ages three through five; analyze development of children ages five through eight; relate child development research findings to teaching practice; analyze the role of heredity and the environment; examine the role of brain development in early learning (ages 3-8); examine developmental and environmental assessment strategies for children ages 3-8.

**ECE: Children w Diff Abilities** 10307187 3 Credits

This 3-credit course focuses on the child with differing abilities in an early childhood education setting. Course competencies include: integrate strategies that support diversity, cultural responsiveness, and anti-bias perspectives; promote inclusive programs for young children; apply legal and ethical requirements including, but not limited to, ADA and IDEA; examine the consultation process to embed intervention in natural based settings; differentiate between typical and exceptional development; analyze the differing abilities of children with physical, cognitive, health/medical, communication, and/or behavioral/emotional disorders; identify community and professional resources; interpret an individual educational plan (IEP/IFSP) for children with developmental differences; adapt curriculum to meet the needs of children with developmental differences; examine strategies for cultivating partnerships with families who have children with developmental differences.

ECE: Early Language & Literacy 10307108 3 Credits

This course explores strategies to encourage the development of early language and literacy knowledge and skill building in children birth to 8 years of age. Learners will investigate the components of literacy including; literacy and a source of enjoyment, vocabulary and oral language, phonological awareness, knowledge of print, letters and words, comprehension and an understanding of books and other texts. Theories and philosophies regarding children's language and literacy development will be addressed. Dual language learning will be examined within the context of developmentally appropriate practices. Assessment tools for early language and literacy acquisition will be reviewed.

**ECE: Family & Community Rel** 10307195 3 Credits

In this 3-credit course you will examine the role of relationships with family and community in early childhood education. Course competencies include: implement strategies that support diversity, cultural responsiveness, and anti-bias perspectives when working with families and community; analyze contemporary family patterns and trends; identify strategies to strengthen and support families; explore effective communication strategies; discover strategies for developing respectful and reciprocal relationships with families; analyze strategies to promote family engagement in early childhood education programs; explore a variety of formats for meeting with families in their contexts; advocate for children and families; and explore community resources that provide a range of services for children and families.

10307148 3 Credits **ECE: Foundations of ECE** 

This 3-credit course introduces you to the early childhood profession. Course competencies include: explore the concepts of diversity, cultural responsiveness, and anti-bias as it relates to early childhood education, investigate the history of early childhood education, examine regulatory requirements for early childhood education programs in WI, summarize types of early childhood education settings, identify the components of a quality early childhood education program, summarize responsibilities of early childhood education professionals, explore early childhood curriculum models and examine the critical role of play as it relates to developmentally appropriate practice.

**ECE: Guiding Child Behavior** 10307188

This 3-credit course examines positive strategies to guide children's behavior in the early childhood education setting. Course competencies include: integrate strategies that support diversity, cultural responsiveness, and anti-bias perspectives; analyze techniques for and effects of strong relationship-building with children and families; identify positive and proactive guidance principles and techniques to support children; analyze environmental influences on child behavior; identify strategies that support children's active engagement in the learning environment; identify strategies that proactively teach emotional literacy and regulation techniques; identify strategies that proactively teach friendship skills; identify strategies that proactively teach children calming, relaxation, and problem-solving techniques; utilize observation and assessment techniques to assess and interpret behavior; create a behavior support plan based on a functional behavior assessment; create a guidance philosophy. This course meets the requirements of the "24 hour Wisconsin" Pyramid Model training.

ECE: Hlth Safety & Nutrition 10307167

This 3-credit course examines the topics of health, safety, and nutrition within the context of the early childhood educational setting. Course competencies include: integrate strategies that support diversity, cultural responsiveness, and anti-bias perspectives; examine governmental regulations and professional standards as they apply to health, safety, and nutrition; plan a safe early childhood environment; plan a healthy early childhood environment; plan nutritionally sound menus; examine child abuse and neglect issues and mandates; describe Sudden Infant Death Syndrome (SIDS) risk reduction strategies, describe strategies to prevent the occurrence of Shaken Baby Syndrome (SBS); incorporate health, safety, and nutrition concepts into the children's curriculum.

ECE: Infant & Toddler Dev 10307151 3 Credits

In this 3-credit course you will study infant and toddler development as it applies to an early childhood education setting. Course competencies include: integrate strategies that support diversity, cultural responsiveness, and anti-bias perspectives; analyze development of infants and toddlers (conception to thirty-six months); correlate prenatal and postnatal conditions with development; summarize child development theories; analyze the role of heredity and the environment; examine culturally and developmentally appropriate environments for infants and toddlers, examine the role of brain development in early learning (conception through thirty-six months); examine caregiving routines as curriculum; and examine developmental and environmental assessment strategies for infants and toddlers.

**ECE: Infant Toddler Group Care** 3 Credits 10307169

This course focuses on caring for infants and toddlers in group settings, both center-based and family child care. It includes program quality, philosophy, structure, environments, health and safety, developmentally appropriate practice and inclusion/diversity issues.

**ECE: Intermediate Practicum** 10307177 3 Credits

In this 3-credit course you will be implementing regulations and standards for quality early childhood education, applying knowledge of child development and positive guidance, utilizing observation and assessment techniques, and assessing developmentally appropriate environments for children.

**ECE: Introductory Practicum** 10307174 3 Credits

In this 3-credit practicum course you will learn about and apply the course competencies in an actual early childhood setting. You will explore the standards for quality early childhood education, demonstrate professional behaviors, and meet the requirements for training in the Wisconsin Model Early Learning Standards.

**ECE: Preschool Practicum** 10307175 3 Credits

This course will apply as the capstone course in The Registry Preschool Credential. You will be placed or working in an early childhood setting with 3-5 year old children and create a portfolio that prepares you for The Registry commission. In this course you will be implementing regulations and standards for quality early childhood education, applying knowledge of child development and positive guidance, utilizing observation and assessment techniques, and assessing developmentally appropriate environments for preschoolers.

10307110 ECE: Soc S. Art. & Music 3 Credits

This 3-credit course will focus on beginning level curriculum development in the specific integrated content areas of social studies, art, music, & movement (SSAMM).

10307112 3 Credits

This 3-credit course will focus on beginning level curriculum development in the specific integrated content areas of science, technology, engineering and mathematics.

10104106 3 Credits E-Commerce

You can buy or sell anything online! Students will learn to determine if that is the case and where is it best to sell – stand alone or an online marketplace. You will learn about the steps to set up an e-commerce web site including shopping carts, payment gateways, and converting order processing into a shopping cart process. This class will also discuss some of the laws and regulations to consider and explore for domestic and global e-commerce.

**Economics** 10809195 3 Credits

This course is 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.

**EDU: Behavior Management** 10522105 3 Credits

Provides the learner with research-based concepts and strategies which can be used to respond to behavior in an educational setting. Practical application of strategies related to organizing instruction, creating a positive classroom climate, building positive student relationships, implementing sound instructional methods, enhancing motivation, and responding effectively to classroom behavior is emphasized. Effective student communication and de-escalation strategies will be practiced in class, with a focus on developing skills to assist in empowering children to take an active role in self-control and classroom management.

FDU: Child & Adol Dev 10522106 3 Credits

Provides an overview of physical, motor, perceptual, cognitive, social/emotional and growth and development birth through adolescence. Analyzes social, parental, cultural, brain, and economic influences on development.

10522112 3 Credits **EDU: Equity in Education** 

Students examine the diversity of learners as well as the characteristics of a diverse classroom. Focus is on strategies to support English Learners and the importance of building on students' cultural strengths. Identification of ethical, legal and moral responsibilities of school personnel will also be included.

**FDU: Intro to Ed Practices** 10522103 3 Credits

Students analyze preK-12 education in the United States, determine roles and responsibilities of school personnel, and explore current issues, trends and best practices. Students identify how students learn and the foundations of lesson planning. Students analyze Assessment strategies, classroom management, and techniques for supporting learners.

**EDU: Overview of Spec Ed** 10522107 3 Credits

Students examine a historical overview of special education and special education law including special education disability categories as defined by the Individuals with Disabilities Education Act (IDEA). Students explore state and federal qualification special education criteria and societal responses to students with disabilities. Students examine the impact of a student with disabilities on family dynamics and the role school personnel play in supporting students with disabilities.

EDU: Practicum 1 3 Credits

Students apply the skills learned in previous program courses in a school setting while under the supervision of a Department of Public Instruction certified teacher. Students support learners while demonstrating professionalism. Students begin the reflective process.

3 Credits FDU: Practicum 2 10522131

Child Students apply the skills learned in previous program courses in a school setting while under the supervision of a Department of Public Instruction certified teacher. Students support learners and while demonstrating professionalism.

EDU: Supporting Stu w/Disab 10522124 3 Credits

This course focuses on understanding how service is delivered to students with special education needs in the classroom and through supportive and related services. A review of the law as it relates to special education, and the individual educational program, assessment and planning process will be provided. Based on the premise that all children can learn, students will examine factors, which inhibit and enhance learning through a study of various instructional formats such as direct instruction, strategy instruction and task analysis. Students will engage in simulated classroom activities to explore and practice incorporating a wide array of alternative instructional techniques and programs, which can be used to support student with disabilities in all major curricular areas and to help children develop effective study skills.

10522114 **EDU: Techniques in Lang Arts** 3 Credits

Students explore various genres of children's and young adult literature. Students examine techniques used to support learners in reading and writing and strategies for assessing learners in the process. Students examine techniques to support learners with reading and writing across the curriculum.

**EDU: Techniques in Math** 10522118 3 Credits

Students learn key terminology and research-based strategies to support learners in math domains: numbers, base ten operations, algebraic thinking, geometry, probability/statistics and measurement and data. Current practice including manipulatives, problem-solving and assessment will be covered within the framework of state and national standards.

**EDU: Techniques in Reading** 10522102 3 Credits

Students learn techniques to support reading development for all learners. Students learn techniques to promote phonological awareness, phonemic awareness, and phonics. Students also learn strategies to promote word analysis, vocabulary, comprehension and reading fluency skills.

10522120 3 Credits **EDU: Techniques in Science** 

Students are introduced to the content and processes of teaching science. Students explore science processes, strategies, procedures, assessment options and factors affecting science learning. Students study and practice strategies for assisting with group and individual activities in science. This course provides a solid foundation in the concepts and models of hands-on, student-centered science and its assessment as described in WI DPI Science Standards and Next Generation Science Standards.

10522119 **EDU: Techniques in Soc Stu** 

Students analyze current content in social studies education as recommended by the National Council for the Social Studies and design learning opportunities for the five components of social studies: Geography. History. Culture and Society. Civics and Government, and Economics. Students explore factors that influence social studies instruction.

**EDU: Technology in Ed** 10522104 3 Credits

Students develop the knowledge and skills to use trending classroom technologies and gain experience creating and using web tools including portfolios. Students create presentations for educational environments and identify ISTE Standards.

Electromechanical Internship 10620180 1 Credits

In this course, students will be exposed to various activities within advanced manufacturing as they relate to the design, implementation, and maintenance of automated industrial systems. Students will work with an employer partner to experience how Electromechanical applications are applied to maintaining and troubleshooting equipment.

**Electronic Devices** 10660125 4 Credits

Electronic Devices provides the fundamentals knowledge of electronic semiconductor devices and circuits including diodes and rectifiers, zener diodes, LEDs, bipolar junction transistors (BJTs), and field effect transistors (FETs). Electronic circuits and their applications will be constructed and tested using both actual components and circuit simulation software.

**Electronics Project** 10663170 3 Credits

As a capstone project this course will enhance and/or verify the Electronic and Computer Engineering Technology program outcome. The Student will complete a project that includes both a hardware and software component, a written report and an oral presentation. Included within in the written report will be a project description, a budget, timetable, schematics, drawings, recommendations for improvement, and a daily log of progress.

**Elementary Matrix & Linear Algebra** 20804256

Elementary Matrix and Linear Algebra is designed for students of mathematics, science, and engineering. This course covers the principles of linear algebra and the theory of matrices with an emphasis in understanding the fundamental concepts and being able to perform calculations. An introduction to formal, logically sound proofs of important theorems is also integrated into the course.

10662134 4 Credits **Embedded Systems** 

Embedded systems are used in commercial, consumer, and residential products. This course will introduce the student to the fundamentals of embedded system design. The architecture of the microcomputers and microcontrollers will be discussed including, memory systems and devices, bus systems, A/D and D/A conversions, serial and parallel communications, timers and counters, interrupts and interfacing to various external devices. Microcontroller board-based modules on the AVR/ARM microcontrollers such as Arduino Uno will be covered. Assembly and C language programming will be used to learn embedded systems development.

**Emerging Ag Technologies** 10006180 3 Credits

Students will gain knowledge and experience in the four key areas of accelerating change in agricultural technology: Sensors, Food, Automation and Engineering. Sensors included air & soil sensors, equipment telematics, livestock biometrics, crop sensors, and infrastructural health sensors. Food technology includes genetically designed food and In vitro meat. Automation technology includes variable rate swath control, selective breeding, agricultural robots, precision agriculture. Closed ecological systems, synthetic biology, and vertical farming are included in engineering technology.

**Employee and Labor Relations** 10116136 3 Credits

Students will learn the legal requirements of labor and management roles in union and non-union environments. Labor relations topics include the legalities of union certification and decertification, negotiation and administration of labor agreements, strikes, lockouts, mediation, and arbitration. Students will also determine appropriate methods to address employee relations issues such as disciplinary action, investigations, termination, unemployment insurance, and conflict resolution.

**Employee Benefits** 10116163

Students will learn about the legal, economic and human resources aspects of benefits administration, including related Federal statutes and regulations. Students will review health, welfare, and retirement plan management, benefit planning and negotiation, controlling benefit costs, administering benefit programs, the impact of legal issues, and future trends. The numerous types of benefits that can be offered in the workplace and the economic ramifications of those benefits will also be studied.

10116158 **Employment Law** 3 Credits

Students begin by analyzing their own beliefs and behaviors regarding discrimination. Then, through in-depth case analyses, oral presentations, and debates, students learn about the intricacies of federal and Wisconsin equal employment opportunity laws. Topics include legislation and Supreme Court decisions related to civil rights, age discrimination, disabilities, pay equity, affirmative action, etc.

EMR and EMT Part 1 10531105 2 Credits

This course provides foundational knowledge for Emergency Medical Technician (EMT) candidates, and all requirements for Emergency Medical Responder (EMR) candidates. Topics include: basic anatomy and physiology, patient assessment, traumatic injury management, airway management, cardiac management and basic medical care. Upon successful completion, candidates will be eligible to participate in the National Registry of EMT's Emergency Medical Responder exams required for Wisconsin EMR certification.

FMS FUNDAMENTAL 10531911 2 Credits

This course provides the paramedic student with comprehensive knowledge of Emergency Medical Services (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.

**EMS Operations** 1 Credits

This course provides the paramedic student with the knowledge of operational roles and responsibilities to ensure patient, public, and EMS personnel safety.

**EMT Basic** 10531109 5 Credits

Designed to train the student in care of the patient at the scene of an accident or sudden severe illness and during transportation to the hospital. The Emergency Medical Technician (EMT) integrates signs and symptoms and intervenes accordingly, and operates ambulance equipment necessary for lifesaving care.

10531106

This course will further build upon the base knowledge of the EMR and EMT Part 1 course. Topics include: expanded anatomy, physiology, and pathophysiology, disease processes, more complex patient assessment and critical thinking skills. Additional skills will be covered as allowed by the Wisconsin Department of Health Services EMS Section Scope of Practice for EMT's. Upon successful completion, candidates will be eligible to participate in the National Registry of EMT's exams required for Wisconsin EMT licensure.

**Energy Management Capstone** 10481114 4 Credits

This will be a cumulative application of the concepts of all technical skills and general knowledge obtained throughout the curriculum to a sponsored project. These projects will be either industry, community or municipality sponsored and will range from industrial, commercial or residential in nature. Students will perform complete design, analysis, specification, and commissioning of a variety of energy management systems, thermal systems, or other renewable and energy efficiency systems. A final project report will be presented to the sponsor, community forum and the advisory board.

**Energy Modeling 1** 10481105 3 Credits

This course will teach the student how to use "Manual J" from ACCA, REScheck, and REMrate. Students will develop the skills to do residential heating and cooling heat loads. Students will calculate heat loss and also losses or gains due to infiltration, sun loads and internal gains. Additionally, the students will begin to investigate energy consumption associated with lighting, appliances and plug loads.

3 Credits **Energy Modeling 2** 

Students will explore in depth heat loss estimation, energy simulation, and energy optimization. They will also study building durability as it relates to residential and commercial projects. The software used to perform analysis will include: WUFI, THERM, REMrate, BEopt, and eQUEST.

10660164 3 Credits **Energy Storage Solutions** 

This course will cover energy storage from renewable energy sources allowing continuous energy production from an intermittent supply. Students will investigate current and emerging battery technology storage options along with capacitor storage solutions. Other types of energy storage will also be discusses such as compressed air, pumped water storage, flywheel storage as well as any new or emerging technologies as they become available.

**Engine Performance 1** 32404334

Provides skills and technical knowledge in the use of diagnostic equipment, as well as emissions control devices. Includes computerized engine control systems, input sensors, output devices and exhaust system service.

32404362 **Engine Performance 2** 3 Credits

Develop skills to analyze fault codes and diagnosis in air induction (turbos and superchargers), ignition, fuel injection and light duty diesel systems that affect vehicle performance. Includes advanced testing techniques using chassis dynamometer.

**Engine Repair** 32404353 3 Credits

Provides skills and technical knowledge in engine repair and maintenance under actual garage conditions. Includes diagnosis and repair of engine malfunctions, estimation of repair costs and parts ordering.

English 1 20801201 3 Credits

English 1 is designed to help students use the writing process to strengthen and refine their writing skills. Students will use critical reading, thinking, and research skills to produce writing that illustrates their ability to effectively analyze information, synthesize information from sources, and ultimately, produce polished prose suitable for various purposes and audiences. This class assumes competence in English grammar and paragraph structure.

English 2 20201203 3 Credits

English 2 continues the study of expository writing for students who wish to attain advanced skills in managing the written language. Students learn critical reading and thinking skills, including textual analysis and evaluations.

**English Composition 1** 10801136 3 Credits

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.

3 Credits **Entrepreneurship Business Canvas** 10102122

Learn the key tools and steps to build a successful startup (or at least reduce the risk of failure). An introduction to the basics of using a Customer Development Process, where entrepreneurs "get out of the building" to gather massive amounts of customer and marketplace feedback, and then use that feedback to create a business canvas. You'll learn the key steps of the Customer Development process: how to identify and engage the first customers for your product, and how to gather, evaluate and use their feedback to make your product, marketing and business model stronger.

# **Entrepreneurship Exploration and Mindset**

10102108

3 Credits

Students will investigate, understand, and apply components of entrepreneurship enterprises to discover how these components fit together in successful businesses. Students will engage in the fundamental aspects of entrepreneurship - mindset, skills & behaviors of successful entrepreneurs. This course is designed to research and apply concepts in customer segmentation, business analysis, organizational structure, and competitive analysis through concept development. The course explores business concepts by focusing on the entrepreneurial opportunities within an organization and outside.

10304138 **Entrepreneurship for Designers** 2 Credits

Students will explore the skills, attitudes and behaviors of successful entrepreneurs and have the opportunity to meet and network with current leaders. Emphasis on design business documentation and planning, including: proposals, cost estimating, fees, bidding/negotiation, and construction administration. The National Council for Interior Design Qualification examination and subsequent state licensure paths are discussed.

**Environmental Issues** 20806280 4 Credits

Environmental Issues is an introductory (non-laboratory) survey course entirely appropriate for first-year students. Environmental Issues explores diverse problems of human impact on natural systems. Though fundamentally grounded on the basic principles of biology and ecology, this course is designed to encourage interdisciplinary thinking about critical environmental problems. Students explore chemical, biological, political and ethical interactions of environmental systems on scales that range from local to international. The course prepares students for Principles of Ecology and other more advanced courses in Environmental Studies.

**Estimating Bids & Specs** 31410338 1 Credits

This course studies the process of preparing a bid for various work to be performed in the constructional trade. Students will learn to "take off" information from plans and specifications to prepare materials estimates. Students will estimate labor costs based on industry averages for labor rates. Given the plans and specifications for multiple projects that may include: additions, remodels, new residential construction, agricultural buildings, and commercial construction, students will prepare a bid.

**Ethics in Criminal Justice** 10504851 2 Credits

This course provides an exploration of ethical issues of police, courts, and corrections. It emphasizes consequences of decision making and the ethical decision-making models required for good judgment by justice guardians.

**Ethnic Literature** 20801212 3 Credits

Explores questions of identity within various cultural contexts. Writers represent one or more ethnic groups working in one or more genres of literature with emphasis on developments in voice, genre, and style over chronological periods and geographical zones. Individual sections may vary in particular emphasis.

2 Credits **Exploring Surgical Issues** 10512127

Explores a variety of issues related to surgical technology. Emphasis is placed on becoming a professional member of the surgical team.

**Exterior Finishes** 31410371 4 Credits

In this course, students will complete the exterior finishing aspects of a residential structure. Tasks may include window installation, soffit and fascia installation, exterior trim installation, siding installation, and deck construction and finish. Students will perform these finishing operations by completing the exterior finish work for a newly constructed home.

10110106 **Family Law** 

The Family Law course is designed to familiarize paralegal students with the basic legal concepts involved in the area of family relations and domestic relations law. The students will be able to compare how relationships and relationship issues are governed by the law including marital relationships, dissolutions, custody actions, child support actions, adoptions, paternity actions, and domestic violence relationships.

Farm Records & Analysis 30090343 3 Credits

Emphasizes the practical use of a farm record system in managing the farm through farm and financial analysis. It includes the establishment of farm business goals, selection and use of farm credit, farm business arrangements, farm estate planning, and farm income taxes. Instruction on the use of business performance reports (cash flows, balance sheets, farm financial ratios, income over feed costs, Schedule F – profit and loss statement, cost of production) is included. Students will also learn to compare marketing and risk management strategies for various commodities and to evaluate farms using farm economic benchmarks.

Field Study 1 - Human Services 10520115

Learners practice human service skills and professionalism while gaining "on-the-job" experience through placements local human service agencies. They examine progress towards learning goals through reflection, discussion, and supervision. Documentation processes will be outlined and explored within the field setting. Learners discuss their experiences, challenges, ethics, and boundary issues during the weekly seminar and prepare for Human Services Field Study 2.

Field Study 2 - Human Services 10520123 3 Credits

Students demonstrate advanced skills and techniques used in the field. Students examine their progress toward learning goals through reflection, discussion, and Supervision. Students discuss their experiences, challenges, ethics, and boundary issues during the weekly seminar.

**Fire Behavior and Combustion** 10503195 3 Credits

This course explore the theories and fundamentals of how and why fires start, spread, and are controlled.

**Fire Fighting Principles** 10503142 4 Credits

Describes basic fire behavior, techniques used to control structural and related fire emergencies, and life safety practices. Students perform all practical evolutions necessary to control and extinguish fires and otherwise meet all requirements for Firefighter I certification with the State of Wisconsin.

10503151 Fire Prevention 4 Credits

Provides fundamental information regarding the history and philosophy of fire prevention, organization and operation of a fire prevention bureau, use of fire codes, and identification and correction of fire hazards. Meets all requirements for Fire Inspector 1 certification with the State of Wisconsin.

**Fire Protection Hydraulics** 10503194 3 Credits

This course provides a foundation of theoretical knowledge in order to understand the principles of the use of water in fire protection and to apply hydraulic principles to analyze and to solve water supply problems.

Fire Protection Internship 10503130 3 Credits

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 of the local fire departments (excluding class times), and perform the same duties as the firefighters. Evaluation is determined by fire department officials and the course instructor. Prerequisite also includes a successful completion of a physical exam and a physical agility test.

10503193 **Fire Protection Systems** 3 Credits

This course provides information relating to the features of design and operation of fire alarm systems, water-based fire suppression systems, special hazard fire suppression systems, water supply for fire protection and portable fire extinguishers.

Firefighter II 10503110 3 Credits

This course continues the Firefighting 1 student's education into basic fire behavior, techniques used to control structural and related fire emergencies, and life safety practices. Students perform all practical evolutions necessary to control and extinguish fires and otherwise meet all requirements for Firefighter 2 certification with the state of Wisconsin and compliance with the requirements of National Fire Protection Association (NFPA) 1001. This is the second part of a two part course containing the coursework preparing the student to be a Basic Fire Fighter according to NFPA 1001 "Standard for Firefighter Professional Qualifications" and in accordance with ILHR 30, WI Statutes.

Fitness & Wellness for Public Safety 10807115 2 Credits

An introduction to fitness and wellness that provides guidelines for enhancing health and physical fitness in relation to a career in public safety. Participants will assess his/her own levels of fitness and wellness and develop a prescription for behavior modification toward a healthier lifestyle. Learners will participate in exercise labs that will prepare them for the physical rigors of a career in the fire areas. In lecture, learners will discuss contemporary, personal health issues that relate to wellness and fitness in public safety.

**Fitness Fundamentals** 20807200 1 Credits

This course is designed to provide students with the basic information and skills needed to begin a personalized exercise program and maintain a healthy and active lifestyle. Students will participate in both pre/post testing including the five components of fitness (muscular strength, muscular endurance, cardiorespiratory endurance, flexibility, and body composition). Throughout the course, students participate in a fitness program involving elements of cardiorespiratory endurance, strength, and flexibility.

Fluid Power Fund 10620112 2 Credits

An introductory course dealing with theory, operation and application of industrial hydraulic and pneumatic systems. Emphasis is placed on component and system operation using practical lab applications. Maintenance, troubleshooting and electrical control of fluid power are included.

10530162 3 Credits

Introduces learners to the healthcare delivery system, and the external forces that influence healthcare delivery. Sets an understanding for the expectations and standards related to professional ethics, confidentiality and security of health information. Differentiates the use and structure of healthcare data elements, data standards, and the relationships between them. Prepares learners to collect and maintain health data to ensure a complete and accurate health record.

Foundations of Video Production 10701101 3 Credits

This hands-on course covers the basics of video production. Students will be introduced to enhanced studio and field production techniques. While utilizing media project management skills, students can expect to shoot, effectively light, record audio, and edit for video projects that will range in length from 30 seconds to a few minutes. Green screen production workflow will be covered, as will color correction and other asset management skills, alongside emerging media technologies. Students will also participate in media career and industry trends exploration alongside their video projects and assignments. A camera is required for this course.

**Framing Techniques** 31410333

This course introduces the theory, materials, methods, and procedures used to construct floor, wall, roof systems, and staircases for wood-framed structures. Students will build a full-size structure in the framing lab using the proper tools, layout techniques, and appropriate materials.

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Fund Of Elecs&Fabrication 10605138 2 Credits

Fundamentals of Electronics and Fabrication will introduce the student to basic AC and DC circuit theory, semiconductors, switches and relays, digital logic gates, circuit simulation software and test equipment. The course allows the student to learn by incorporating the electronics theory with the hands on fabrication of an electronics project.

**Fundamental Electrical Skills** 10620105 1 Credits

This course will introduce fundamental electrical skills. Proper wiring practices and an introduction to residential wiring systems will be included. Soldering and desoldering of wires and component connections will also be addressed.

2 Credits Game Development 10152105

Introduces the learner to two-dimensional gaming and animation. Topics include further study in Java, inheritance, threads and exception handling. Gaming concepts include chase games, imaging, audio, sprite graphics and tile games.

Gen Anatomy & Physiology 4 Credits

Examines basic concepts of human A & P as they relate to health sciences. Using a body systems approach, the course emphasizes the interrelationships between structure and function at the gross & 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 A & P to informed decision-making & professional communication with colleagues & patients. (This course also provides the foundation, and is a prerequisite to Advanced Anatomy and Physiology).

**General Biology** 20806234 4 Credits

The course examines fundamental principles of biology including cell structure and function, energy production by cells and ecosystems, reproduction and genetics, evolution, ecology and a survey of biodiversity. The class emphasizes application of the scientific method to problem-solving. The course is designed to provide a solid foundation for advanced courses in biology as well as providing scientific literacy for all students.

**General Physics 1** 10806154 4 Credits

Presents the applications and theory of basic physics principles. This course emphasizes problem-solving, laboratory investigation, and applications. Topics include unit conversion and analysis, vectors, translational and rotational kinematics, translational and rotational dynamics, heat and temperature, and harmonic motion and waves.

**General Psychology** 20809231 3 Credits

Study of individual and social behavior including its psychological and physiological bases, development, motivation, emotion, perception, learning and behavior disorders. This course is a prerequisite for several college transfer courses in psychology.

**Geometric Dim & Tolerance** 10606165 3 Credits

This course is designed to introduce the student to the fundamentals of Geometric Dimensioning and Tolerancing (GDT). Emphasis will be placed on how GDT controls proper fit and function between mating parts within an assembly from design to manufacturing through inspection. Terminology, rules and the geometric symbols will be covered. We will be using the coordinate measuring machine and related software to emphasize the GDT concepts by measuring dimension accuracy and geometric controls

**Geriatric Practice** 10514178

Examines the role of the Occupational Therapist (OT) in the service delivery to elders in a variety of settings. Includes analysis of the impact of age- related changes and disease processes on the function of the elderly.

10102123 Global E-Commerce

Provides an introduction to eCommerce. Students will explore, the fundamentals of e-commerce, identifying the difference between traditional and eCommerce businesses and how the rapidly changing technological environment impacts both. Students will develop a heightened awareness of emerging technologies and trends in e-business. Fundaments of global business will be discussed in an effort to understand how the environment, cultures, and political systems impact the global trade arena. Learners will examine competencies related to technology, privacy and security issues, electronic payments, and ethical issues that arise.

**Graphic Design & Marketing** 10201136 3 Credits

This comprehensive design course introduces students to the basic principles of marketing and how they relate to graphic design. Positioning, branding, and consumer behavior are major focuses of the course. Students gain experience designing marketing, advertising and promotional materials for a variety of products and services. This course will also emphasize innovative graphic problem solving and creative visual communication.

10201149 **Graphic Design Portfolio** 

Three important factors for obtaining employment in the graphics industry are explored in this course: the resume, the interview, and the presentation of artwork. Topics covered, when presented from a graphic design perspective, prepare students for their job search. Students assemble a portfolio, engage in mock interviews, and participate in a Portfolio Review. Guest speakers describe career opportunities and expectations. This course is reserved for students in their 4th term.

**Graphic Design-Advertising** 10201145 3 Credits

This course is designed so you will gain a comprehensive understanding of the designer's role and advertising's role in society. You'll also refine your technical expertise and increase your design skills.

You'll fully implement the design process and principles while designing a number of portfolio quality pieces for actual real life clients.

**Greenhouse Production** 10001148 3 Credits

Cultural needs, equipment selection and operation, techniques and application of production will be emphasized on a nursery and fruit and vegetable operation. Students will be exposed to the requirements for labor, equipment, pest management, and cultural needs for the plants in these operations. Scheduling and budgeting will be explored.

# **Hazardous Materials Awareness & Ops**

10503153

1 Credits

This course provides basic chemistry relating to the categories of hazardous materials including recognition, identification, reactivity, and health hazards encountered by emergency services.

**Health Quality Management** 10530161 3 Credits

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.

## Health, Safety and Welfare for Design

10304137

1 Credits

A study of industry regulations, code assessment, universal/accessible design principles, and environmental sustainability attributes. Students will demonstrate an ability to understand and analyze life safety elements including egress, fire separation, and energy codes are ensued.

10530178 2 Credits **Healthcare Law & Ethics** 

Examines regulations for the content, use, confidentiality, disclosure, and retention of health information. An overview of the legal system and ethical issues are addressed.

**Healthcare Revenue Management** 

10530159

3 Credits

Prepares learners to compare and contrast health care payers, illsutrate the reimbursement cycle, and to comply with regulations related to fraud and abuse. Learners assign payment classifications with entry level proficiency using computerized encoding and grouping software.

**Healthcare Stats and Analytics** 10530163 3 Credits

Explores the management of medical data for statistical purposes focusing on descriptive and inferential statistics including definition, collection, calculation and compilation of numerical data. Examines data analytics, retrieval, presentation and research methodologies.

### **Healthcare Syst & Tech Troubleshooting** 10605201

3 Credits

This course covers medical devices and systems analysis and troubleshooting. Emphasis is placed on understanding, testing, and troubleshooting medical devices particularly in relation to their safe operation. Content includes tool skills, review of electronics, overview of mechanical systems, utilization of operators/service manuals, and operation of test equipment while working on medical devices.

**Help Desk Management** 10154165 3 Credits

Students will analyze help desk management tools and evaluate techniques necessary to select help desk technologies. Students will also be exposed to how performance measures are used to evaluate the help desk operation. The help desk working environment, including the science of ergonomics, will be analyzed and discussed as it impacts an operational environment.

**Herbaceous Plant Identification** 10001115 2 Credits

Commonly used annual, bulb and perennial herbaceous plants are studied with an emphasis on their use in the landscape.

**High Performance Buildings** 10481107 3 Credits

Students will study topics related to high performance buildings, including: air tightness testing and verification, ventilation strategies, envelope assemblies, durability, moisture management, control layers, energy optimization, and high performance windows and doors. Students will also examine high performance building standards and programs such as LEED for Homes, GreenStar and Passive House.

10614102 History & Theory of Archi 2 Credits

This course allows architectural students to develop and awareness of architectural history and its impact on current design. The focus will be on architectural styles within the context of cultural expression. Instruction centers on influential buildings and architects throughout history and their impact locally and regionally.

History and Theory of Design 10304131 1 Credits

Instruction centers on influential designers and iconic architecture throughout history and their impacts on current design.

10530166 1 Credits HIT Capstone

Prepares the student to enter the workforce. Topics may include resume and cover letter writing, interviewing skills, portfolio preparation, and RHIT examination preparation.

**Homeland Security** 10504840 3 Credits

This course provides an examination of national and state security efforts necessary to protect against all threats foreign and domestic from terrorism to pandemic. It emphasizes a comprehensive strategic planning process and the national incident management system from surveillance to suppression.

**HR Professionalism** 10116118 2 Credits

Students will develop personal and learning skills that will enhance their success in the Human Resource Management program. These skills include self- assessment, time management, study skills, learning styles, active reading, communication skills and career development. Course competencies and sequencing are reviewed, as well as resources available. Students are also introduced to career opportunities in the field of human resources.

**Hum Resource Internati Issues** 10116101 2 Credits

Each student researches the geography, demographics, and culture of various nations. Following the research, students will focus in international human resource practices, including recruiting staff, training, compensation, repatriation and performance management.

10206192 **Human Biology** 4 Credits

This is an introductory course that emphasizes the structure of the human body and the functional interrelationships of the body's systems. Consideration is also given to human genetics, human evolution, ecology, and the role that humans play in the environment.

**Human Body in Health & Disease** 31509302 3 Credits

Focuses on diseases that are frequently first diagnosed and treated in the medical office setting. Students learn to recognize human body 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.

**Human Diseases for Hlth Profes** 10530182 3 Credits

Prepares learners to interpret clinical documentation that they will encounter in a variety of healthcare settings. Emphasis is placed on understanding the common disorders and diseases of each body system to include the etiology (cause), signs and symptoms, diagnostic tests, and results, and medical treatments and surgical

**Human Resource Applications** 10116152 3 Credits

Students further develop their human resource knowledge and skills by working with HR professionals to complete human resource projects for La Crosse-area organizations. Teams of students are provided actual problems or projects from local organizations. Evaluation of students' work will be heavily influenced by the satisfaction expressed by representatives of the organizations served.

**Human Resource Info Mgmt** 10116186 2 Credits

Students learn to use the integrated human resource information components of available software systems to perform human resource database tasks related to administration, performance management, compensation, recruitment, and more. In a series of exercises, students process the HR information related to groups of employees as these employees move through the application, selection, promotion, and retirement phases of employment.

**Human Resource Management** 10196193 3 Credits

Learners apply the skills necessary to value and apply employees' abilities and needs to organization goals. Learners apply the supervisor's role in human resource management, impacts of EEOC (Equal Employment Opportunity Commission), writing job descriptions, recruitment, selection, conducting job interviews, orientation, developing policies and procedures, training, performance management, employee counseling and development, and effective use of compensation and benefit strategies.

**Human Resource Portfolio** 

Students apply their human resource knowledge to develop a portfolio that demonstrates their competence in key areas of human resources, including management, safety, training, staffing, compensation administration, and employment law. Local human resource professionals then review the portfolios to evaluate each student's expertise. Emphasis is placed on demonstrating HR knowledge through planning and professional writing.

10304124 1 Credits **Human-Centered Design** 

An exploration of human influences, including social, psychological, cultural and global aspects and their impact on the built environment. Students will demonstrate their understanding of project context. Ergonomics, athropometrics, and proxemics will be considered when learning planning and interior environment arrangement methods.

**HVAC - Diesel** 2 Credits 32412321

A practical study of the theories and maintenance procedures for the operation, preventive maintenance, failure diagnosis and repair of cab climate control systems. The EPA and industry required practices will be adhered to throughout the course.

10601125 **HVACR Air Conditioning** 4 Credits

This course covers the start up, check out, and operation of residential split system air conditioners, commercial roof top units, air source heat pumps, water source heat pumps, and geothermal heat pumps. Troubleshooting and refrigerant recovery will be emphasized. HVACR is a common reference to Heating, Ventilation, Air Conditioning and Refrigeration.

**HVACR Air Hand, Psych & IAQ** 10601102 1 Credits

Learners will size duct systems, select fans and use air balancing test instruments. The us of the psychrometric chart to calculate heat and humidity transfer into or out of air will also be introduced. Learners will study the purpose and means of continuous indoor air quality. HVACR is a common reference to Heating, Ventilation, Air Conditioning and Refrigeration.

**HVACR Basic CAD** 10601112

This is an introductory course in computer-aided drafting. Basic skills utilizing Auto CAD software will be emphasized. Course content includes: drawing setup, basic input procedures, drawing modifications and CAD concepts unique to producing drawings related to heating, ventilating and air conditioning. HVACR is a common reference to Heating, Ventilation, Air Conditioning and Refrigeration.

**HVACR Commercial Refrig** 10601122 4 Credits

This course covers the operation, control and maintenance of commercial ice makers, super market refrigeration, and special refrigeration applications. Refrigerant handling and recovery will be emphasized. HVACR is a common reference to Heating, Ventilation, Air Conditioning and Refrigeration.

**HVACR Commercial Systems** 10601140 3 Credits

This course studies the design, application, operation, and maintenance of large commercial air conditioning, refrigeration, and air handling systems. Coursework includes lab studies as well as field study trips to commercial installations. HVACR is a common reference to Heating, Ventilation, Air Conditioning and Refrigeration. **HVACR Flectric Motors & Ctrls** 10601116 4 Credits

This course covers basic electrical theory, parallel and series circuits, voltage, current, and resistance. Transformers, contactors, relays and solid state devices are studied. The types and characteristics of electric motors and controls commonly found in air conditioning and refrigeration applications are studied. This course covers the basic fundamentals of electricity including magnetism, resistance, inductance and capacitance. Learners will read electrical diagrams, interpret symbols, use test instruments and perform troubleshooting tasks. HVACR is a common reference to Heating, Ventilation, Air Conditioning and Refrigeration.

10601134 **HVACR Energy** 2 Credits

This course studies the interrelationship of a building, its occupants and the systems in the building. Topics include ventilation, moisture, renewable energy, sustainability, LEED design, and energy use in buildings. Learners will use building diagnostic procedures such as testing for duct leakage, infiltration, and backdrafting. HVACR is a common reference to Heating, Ventilation, Air Conditioning and Refrigeration.

**HVACR Forced Air Htg** 10601107 4 Credits

This course emphasizes the operation, maintenance, testing and repairing of residential furnaces. Gas and oil furnaces will be covered. The learner will use hand tools and test instruments. Topics include combustion, combustion safety, venting, filters, thermostats, heat transfer, gas piping, and carbon monoxide, circulation blowers, gas conversion, furnace components and function and typical location. HVACR is a common reference to Heating, Ventilation, Air Conditioning and Refrigeration.

**HVACR Hydronic & Steam Systems** 10601137

Participants will design hot water systems, select circulating pumps and balance hydronic systems. Components of the course include fluid flow in pipes, pump characteristics and steam systems. Operating boilers efficiently and safely will be emphasized. HVACR is a common reference to Heating, Ventilation, Air Conditioning and Refrigeration.

10601121 **HVACR Intro to Installation** 3 Credits

The learner will design and install forced air duct system with fabricate sheet metal box, a gas furnace, install a residential air conditioner, and install a gas boiler and the components of a boiler and in floor heating system. Learners will take the EPA Refrigeration Handling Certification test. HVACR is a common reference to Heating, Ventilation, Air Conditioning and Refrigeration.

**HVACR Job Shadow** 10601128 1 Credits

Through a combination of outside speakers and job shadowing, learners will be introduced to HVACR occuptional areas such as installing, servicing, testing, selling and designing. HVACR is a common reference to Heating, Ventilation, Air Conditioning and Refrigeration.

**HVACR Refrigeration** 10601101 4 Credits

This course is an introduction to basic refrigeration systems. Topics include terminology, the refrigeration cycle, safety, refrigerants, lubricants, and environmental issues. The learner will assemble copper tubing, use hand tools, and use test instruments. The learner will operate, evacuate, charge and repair basic refrigeration units. HVACR is a common reference to Heating, Ventilation, Air Conditioning and Refrigeration.

**HVACR Res Htg & Cool Loads** 10601108 1 Credits

This course covers human comfort and heat transfer. Learners will complete a heat loss and a heat gain calculation of a residence. HVACR is a common reference to Heating, Ventilation, Air Conditioning and Refrigeration.

**HVACR System Design** 10601145 3 Credits

Design and document air conditioning systems for commercial buildings. Design and document a refrigeration system for product storage. Computer programs will be used in component selection and system design. HVACR is a common reference to Heating, Ventilation, Air Conditioning and Refrigeration.

**HVACR Temperature Controls** 10601142 3 Credits

This course will assist the student in developing the skills required to design, analyze, modify and calibrate HVAC (Heating, Ventilating and Air Conditioning) control systems. The fundamentals of control systems will be studied and applied to common control strategies most often found in commercial HVAC systems. HVACR is a common reference to Heating, Ventilation, Air Conditioning and Refrigeration.

**ICD Diagnosis Coding** 10530197 3 Credits

Prepares students to assign ICD diagnosis codes supported by medical documentation with entry level proficiency. Students apply instructional notations, conventions, rules, and official coding guidelines when assigning ICD diagnosis codes to case studies and actual medical record documentation.

**ICD Procedure Coding** 10530199 2 Credits

Prepares students to assign ICD procedure codes supported by medical documentation with entry level proficiency. Students apply instructional notations, conventions, rules, and official coding guidelines when assigning ICD procedure codes to case studies and actual medical record documentation.

Illustration Concepts 10201128 3 Credits

Students will gain experience with communicating messages, ideas and content through the use of illustration. Projects will be based on various real-life industry assignments and commissions. Students will use popular mediums such as colored pencil, ink washes, pen and ink, and a combination of these mediums.

**Imaging Equipment Operation** 10526194

Introduces radiography students to the principles and application of x-ray technology. Students analyze how x-rays are produced and determine the corrective actions necessary for common equipment malfunction.

10526231 2 Credits **Imaging Modalities** 

Introduces radiography students to imaging modalities with an emphasis in computed tomography and cross-sectional anatomy.

10605214 **Imaging Systems Modalities** 2 Credits

This course provides an overview of medical imaging modality systems with emphasis on application, safety, and basic theory of operation. The basic theory of operation, safety concerns, and typical applications are investigated for modalities including: Ultrasound, CT, MRI, Nuclear Medicine, Radiation Oncology, and some additional modalities. If available, a portion of the course labs will take place in a regional medical center. Introductory ideas related to preventative maintenance and repair are also discussed.

10605213 **Imaging Systems X-Ray** 2 Credits

This course provides an overview of medical X-Ray imaging systems with emphasis on components, and circuits. The basic theory of operation, safety concerns, and typical applications are investigated for: X-Ray, Mammography, Mobil radiography, and Fluoroscopy. If available, a portion of the course labs will take place in a regional medical center. Introductory ideas related to preventative maintenance and repair are also discussed.

**Income Tax Accounting** 10101165 4 Credits

Introductory course emphasizing the preparation of individual and small business income tax. Students will learn how to apply filing statuses; exemptions; inclusions and exclusions from gross income; adjusted gross income; treatment of retirement plans; small business expenses; self-employment expenses; capital gains and losses; tax credits; special taxes; depreciation for tax reporting; accounting periods; and withholding methods and payments.

**Industrial Control Systems** 10605200

This course covers fundamental wiring concepts, relay ladder logic, sensors, timers, motor fundamentals, motor starters and Variable Frequency Drives. It also includes an introduction to PLC hardware/programming along with Touch Screen/HMI applications.

Industrial Flectricity 10620103 2 Credits

This course covers fundamental DC and AC electricity concepts as applied to industrial control systems. Electrical quantities, measurements and circuit characteristics/ configurations will be introduced. DC, Single Phase and 3 Phase AC will be addressed along with transformers and inductance as related to motor control applications.

**Industrial Networking** 10620141 2 Credits

In the Industrial Networking course students will be introduced to many different industrial networks. The course will start with the physical layer issues and methodologies of hardware installation for their proper operation. We then move on to low level remote I/O networks, their structure and physical makeup. The class will then advance to higher level industrial networks. These networks make up the communication backbones of most industrial equipment. Finally we explore Ethernet protocols. Basic operation and troubleshooting of computers will also be incorporated.

Information Systems-Accounting 10101156 3 Credits

Introduces learners to the information needs of an organization's stakeholders. This course discusses an organization's activities and processes. In addition, this course includes a discussion on sales and personal property taxes.

**Integrated Circuit Applications** 10662157 3 Credits

This course will concentrate on the use of integrated circuits and their applications. The student will use operational amplifiers (op amps) to construct basic amplifiers, active filters, comparators, Schmitt triggers, integrators and differentiators. Special function ICs, such as instrumentation amplifiers and monolithic switching regulators will be used to construct typical circuits used in modern electronic equipment. The use of data and specification sheets, along with internet searches and electronic simulation software, will be emphasized throughout the course.

Integrated Marketing Campaign 10104117

This capstone class brings together the concept you learned in your previous marketing courses allowing you to evaluate the status of a business's marketing and create a digital marketing strategy document to achieve organizational goals.

**Interior Specifications** 10304135 2 Credits

A study of building construction types, building components, and finish selections and materiality within the built environment. Students will demonstrate understanding of installation principles, FF&E procurement, and product characteristics with a strong emphasis on resilient, sustainable and adaptive design practices and construction solutions that consider the well-being and complexity of the physical, mental and emotional needs of people.

Interior Trim 31410322 4 Credits

This course introduces the materials and techniques used to install interior cabinetry and trim work. Students will practice installation of interior doors, casing, base, crown molding, and complete the finish of a stair balustrade in the framing lab. Students will complete the interior finishing aspects of a residential structure to include pre-hung door installation, door and window casing, base board, stair finishes, and cabinet and countertop installation. Students will perform these finishing operations by completing the interior trim work for a newly constructed home.

**Intermediate Coding** 10530165 3 Credits

Prepares students to assign ICD and CPT/HCPCS codes supported by medical documentation and official coding guidance to support appropriate reimbursement. Students will participate in CDI activities, including preparation of appropriate physician queries in accordance with compliance guidelines.

**Intermediate Web Programming** 10152124 3 Credits

This course is an in-depth exploration into web development technologies for programmers who are familiar with HTML, CSS, and JavaScript. The focus of the class is primarily on intermediate and advanced JavaScript topics. HTML, CSS, will be used to design web pages. Various tools, frameworks, and libraries used for web development will also be explored.

10104169 2 Credits Internet Marketing

Explore how businesses use web sites, blogs, mobile apps, and search engine optimization (SEO) to market their business. You will learn basic web design fundamentals, how to use web content management systems, web-based tool connectivity, and use analytics to measure success.

32404372 Internship - Automotive 2 Credits

Student will be responsible to apply employment skills to obtain an internship in an automotive repair facility in the greater La Crosse area. The student can work in multiple areas of the business including parts, service reception and service repair department. This position must be approved by your program student advisor.

Interviewing Prin & Recordkpg 10520103 3 Credits

This course introduces students to interviewing and recordkeeping skills as practiced in human service agencies. The students will learn theory and human service perspectives in the interviewing process. Students will learn principles of social history, case assessment, planning, and intervention.

Intro to Addiction & Substance Use Disor 10520107 3 Credits

A survey of common and uncommonly used substances available in today's society. Learners will examine the history of drug use along with the changing historical trends of abuse. Learners will explore other types of addictions and how they are similar and dissimilar to chemical addictions. Learners will examine the biology of psychoactive drugs as well as the etiology of addiction.

Intro to Amer Government 10809122 3 Credits

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.

Intro to Archi Design 4 Credits

The objective of this course is to familiarize students with architectural graphics and to introduce them to the principles and processes of design emphasizing development of basic skills, idea, and techniques used in the architectural design process.

3 Credits Intro to Auto Technology 32404302

This course includes three areas: 1. Automotive shop and environmental safety practices are introduced and safety sheets are signed. 2. Parts room procedures to introduce the functions of the parts sector in relation to the automotive technology field including parts systems, parts research and online parts catalogs. 3. Automotive related instruction which includes gas metal arc welding and oxy fuel cutting and heating.

Intro to Biochemistry 10806186

Provides students with skills and knowledge of organic and biological chemistry necessary for application with Medical Lab Technician, 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 proteins, lipids, carbohydrates and DNA, and the major metabolic pathways.

Intro To Bio-Med Technology 10605100 1 Credits

The introductory material in this course will give the student an understanding of the BMET/HTM (BioMedical electronics/Healthcare Technology Management) field. The concepts of the human-instrument system and the problems encountered in obtaining measurements from or treating a living body will be introduced. Medical terminology, hospital safety, accepted practices, ethics, medical instrumentation, the role of a BMET/HTM, creative thinking, teamwork, and study skills are an integral part of this course.

Intro to Building Envelope Analysis 10481109

Students will learn the tools and techniques used in the analysis of building envelope. To meet air tightness goals, students will apply test in and test out methodology. Completion of this course prepares the student for BPI Building Analyst certification.

2 Credits Intro to Clinical Care Management 10543108

This clinical experience applies nursing concepts and therapeutic nursing interventions to groups of patients across the lifespan. It also provides an introduction to leadership, management, and team building.

Intro to Energy Effic & Mgmt 10481100

Students in this course will be introduced to the principles of energy management and the energy industry. Students will learn about the history of energy production and costs, the dynamics of worldwide energy consumption and growth, the principle methods by which energy is used, and its environmental and financial impacts and consequences. Objectives and components of an effective energy management program are explored. In addition, students will be introduced to the use of building diagnostic tools commonly employed in industry.

Intro to Ethics: Theory & App 10809166 3 Credits

This course provides a basic understanding of the theoretical foundations of ethical thought. Diverse ethical perspectives will be used to analyze and compare relevant issues. Students will critically evaluate individual, social and/or professional standards of behavior, and apply a systematic decision-making process to these situations.

10530164 Intro to Health Informatics 3 Credits

Emphasizes the role of information technology in healthcare through an investigation of the electronic health record (EHR), business, and health information software applications. Learners will develop skills to assist in enterprise information management and database architecture design and implementation.

Intro to Horticulture 10001111

An overview and introduction to the horticulture profession, including its role and importance throughout history, current trends and the variety of career opportunities will be presented. Topics covered will include fundamentals of practical horticultural cultural practices, plant classification, plant structure, plant growth, plant propagation, landscape design, landscape maintenance, environmental and sustainable relations, and professional development for the student.

Intro to HR Management 10116117 3 Credits

Students explore the fundamentals of human resource administration, including strategic planning, policy making, staffing, appraising, compensation, training, employment law, and safety. In addition, many students identify the specialized HR field they will pursue as human resource professionals.

Intro to Hybrid & Alt Fuel Veh 32404386 3 Credits

This course provides a brief history of hybrid electric vehicles, electric vehicle safety, maintenance, equipment and troubleshooting procedures. Also includes current and future alternative fueled vehicle configurations.

Intro to Industrial Control Systems 10664102 2 Credits

In this course, learners are introduced to basic concepts of industrial computer-controlled systems. The learner explores various types of programming using robots and PLCs and participates in lab experiments designed to introduce programming principles, electronic inputs and outputs (analog and digital), communication between system components including Ethernet protocols. Upon completion of the course, learners will be able to explain how the control processes are utilized to automate manufacturing facilities.

Intro to Industrial Internet of Things 10664120 2 Credits

In this course, learners are introduced to theoretical and practical topics of the Industrial Internet of Things (IIoT). The learner investigates the range of sensor and actuator devices available, ways in which they communicate and compute, methods for getting information to and from IIoT-enabled devices, and ways of visualizing and processing data acquired from the IIoT. Upon completion, learners will utilize hardware and software to construct a sensor network within an existing system and utilize industry standard tools to visual the data captured.

**Intro to Industrial Robotics** 10664107 2 Credits

In this course, learners are introduced to programming techniques for industrial robots. The learner examines teach pendant programming including I/O, routines, decision making, six frames of positional operation, and robot communication. Upon completion of the course, learners will be able to operate and program industrial robots commonly used in Industry 4.0.

10662153 Intro to LabVIEW 2 Credits

This course will provide an introduction to the basic LabVIEW software commands and programming used in data acquisition and control. LabVIEW will be used in conjunction with the National Instruments Educational Laboratory Instrumentation Suite (NI ELVIS). The student will perform experiments that collect and measure electrical signals from various transducers or interface circuitry and then store and process the data on the computer. During the data acquisition process, the output of digital or analog control signals to the interface circuitry will be used to provide feedback for circuit optimization and or adjustments.

Intro to Mechatronics 10664110 2 Credits

In this course, learners are introduced to microprocessor controlled electromechanical systems. The learner examines how individual components work, and how they are integrated into simple systems. Upon completion of the course, learners will understand what technicians do in the workplace and how industry utilizes Mechatronics in advanced manufacturing.

Intro to Media Production 10206110 3 Credits

Students will receive exposure to equipment used in media production, including set up and take down, video, audio, lighting and other components used in the creation of presentation and media materials. Students will also explore careers in the media world. This class concentrates on building basic camera skills, editing skills, a grasp of the pre-production processes, basic digital file management, and effective lighting, all while creating media projects. This course is computer intensive and requires a solid understanding of internet tools and resources.

**Intro to Motion Graphics** 10206111

Intro to Motion Graphics is a course that brings together the worlds of design, sound and movement. It will focus on basic principles of design and motion, while focusing on typographic uses in various media. Students will learn how to effectively communicate with a combination of still photographs, video and graphics. The class will use basic composite and keyframe editing to create short media pieces for display in television, film or the web. Featuring Adobe After Effects, students will use the software to help breathe creative life into their projects.

Intro to MS Excel and Access 10103107 3 Credits

Designed to introduce students to the desktop and operating system of a personal computer, basic features of Microsoft Excel, and basic features of Microsoft Access. Electronic file management (directories and folders) will also be covered.

Intro to Paralegal & Ethics 10110101 3 Credits

This course provides students with an introduction to the legal profession, the American legal system, legal ethics, legal terminology, legal research, and selected areas of substantive law.

Intro to Process Controls 10620102 2 Credits

This course introduces the concepts of automatic process control on the technician level. Students will study process controls for flow, pressure, temperature, and level found in industrial applications. Open and closed loop feedback will be used with different controller modes to improve overall stability. Safety of these systems will be covered through labs and class discussions.

Intro to Psychology 10809198 3 Credits

An introductory course in psychology surveying the multiple aspects of human behavior. It addresses the theoretical foundations of human functioning in such areas as perception, learning, motivation, development, personality, health and pathology, exploring physiological and environmental influences. It directs the student to an insightful understanding of the complexities of human relationships in personal and vocational settings.

3 Credits Intro to Sociology

Introduces students to the basic concepts of sociology: culture, socialization, social stratification, multi-culturalism, and the five institutions, including family, government, economics, religion, and education. Other topics include demography, deviance, technology, environment, social issues, social change, social organization, and workplace issues.

10512125 Intro to Surgical Technology 4 Credits

Provides the foundational knowledge of the occupational environment. Principles of sterilization and disinfection are learned. Surgical instruments are introduced. Preoperative patient care concepts are simulated. Lab practice is included.

Intro to World Religions 20809223 3 Credits

An introduction to world religions including Native American religions, Judaism, Christianity, Islam, Hinduism, Buddhism, Taoism and others. The course will study the historical roots of religion and religions as well as the basic tenets or religion(s). It will endeavor to find commonalities and distinguishing characteristics between the religions. It will also ask and attempt to find some answers in scriptures and the writings of adherents to the questions: Why do religions exist? Why have people striven for knowledge that apparently transcends experience and rational thought based on experience? What is the knowledge that religions purport to lead us to?

Introduction to .NET 10152190 3 Credits

Presents Windows-based programming through the use of .NET. Emphasis is on windows form creation, .NET syntax, control structures, common Windows controls, arrays, text files, common dialog boxes and object oriented principles.

10101108 Introduction to Accounting 3 Credits

The learner will study double-entry accounting, the accounting cycle, merchandise inventory, and payroll. Learners will complete a manual and computerized practice

**Introduction to Building Science** 10481106

Students will study the concepts associated with the theory, materials, and methods used in construction to include footings and foundations, walls, floors, roofs and roof materials, exterior finishes, interior walls, ceiling and floor finishes, insulation types, vapor and air infiltration, sound protection and building codes. Additionally, student will become familiar with blueprint reading and examine all the trades associated with construction including electrical, HVAC, and plumbing. The safe use of the appropriate tools for each trade will also be covered. Additionally, students will explore building codes and standards.

10102106 **Introduction to Business** 3 Credits

Students study the components of the U.S. business enterprise system and discover how these components fit together in successful organizations. Regardless of the career chosen, or position within a company, it is imperative to understand the interrelationship among the various functional areas of a business.

Introduction to Cybersecurity 10151100 1 Credits

Introduction to Cybersecurity, explores the field of cybersecurity, specifically the importance of cybersecurity, data confidentiality, best practices for using the internet and social media safely, and potential career opportunities in this growing field.

**Introduction to Diversity Studies** 10809172

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.

Introduction to Engineering 10623260

This lab-based course introduces engineering students to basic engineering skills, data analysis and graphical methods, engineering project design, and descriptions of engineering disciplines. Students will learn skills in mathematics and physics, measurement techniques, uncertainty and tolerances, drafting, plotting, data analysis, project design, project fabrication, testing, writing lab reports, and professional presentation skills. Content areas include unit systems and conversions, engineering ethics, statistics, statics, material properties, heat transfer & thermodynamics, hydraulics, and electronic circuits.

Introduction to Gerontology 10520150 3 Credits

The Gerontology course identifies issues that will increase learner's knowledge in the area of aging. The focus will be on mental health issues, health issues, socioeconomic factors, and other forces that impact the aging process and the individual's adaptation to it. Learners will recognize the common elements to the aging process focusing on dynamics of the individual, social support systems, and programs to help those with special issues in the aging process.

**Introduction to Human Services** 10520101 3 Credits

This course is designed to give the student an overview of the human service field. Students will learn about the various types of human service agencies and occupations available in the field, and the qualities of the personnel in those fields. Students will get firsthand experience with at least one local human service agency.

10152153

This course covers theoretical concepts and basic features of the Java programming language. Topics covered include data types, operators, control structures, arrays, Java functions, user-defined functions and object-oriented principles. Students will learn to develop the skill of formulating problem solution steps and translate that solution into Java code. Creating programs with graphical user interfaces and writing applets is also covered.

Introduction to Literature 20801204 3 Credits

Recommended as a first course in literary analysis, this course introduces students to the major genres of literature and addresses issues related to writing about literature and/or other texts.

**Introduction to Molecular Diagnostics** 10513170 2 Credits

Introduces the principles and application of molecular diagnostics in the clinical laboratory.

### **Introduction to Occupational Therapy** 10514171 3 Credits

Provides an overview of history, philosophy, ethics, and scope of occupational therapy practice. Examines legal responsibilities, professional resources, and organization. Students practice basic skills related to therapeutic relationships and determine their own suitability to a career in occupational therapy.

Introduction to Philosophy 20209260 3 Credits

This course introduces various fields of philosophy, philosophical methodology and the history of philosophy. Examines some philosophical issues in depth and develops the ability to think, speak and write critically about these problems that have concerned human beings for centuries.

Introduction to Radiography 10526158 3 Credits

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.

Introduction to Soils 10006173 2 Credits

Intro to Soils examines the fundamentals of soils physical properties, chemical properties, biological properties, soil formation, classification, essential nutrient and soil survey. There will be emphasis on soil and water conservation practices that can be used to reduce soil erosion. Participants will experience soils concepts through lab and in-the-field activities.

Introduction to Welding 10442105 1 Credits

A 1 credit course to prepare welding students to be successful in the lab and online. Topics covered will include Blackboard (or current LMS), email, and basic metal shop safety. The students will also get introduced to the most frequently used equipment in the shop such as welders, grinders, saws, and shears.

**Introductory Plant Science** 10006129 3 Credits

Provides fundamental knowledge of plant components and their functions. Topics include pollinating and propagating plants, germinating seeds, plant nutrients and factors affecting photosynthesis, respiration and tranpiration. We will investigate how these functions help the plant sustain itself. Participants will experience plant components and their functions through the completion of hands-on activities.

**Introductory Statistics** 10804189 3 Credits

Students taking Introductory Statistics display data with graphs, describe distributions with numbers perform correlation and regression analyses, and design experiments. They use probability and distributions to make predictions, estimate parameters, and test hypotheses. They draw inferences about relationships including ANOVA.

**Investigative Strategies** 10504853 1 Credits

This course provides an analysis of the principles of evidence recognition, preservation, and crime scene processing. It examines techniques of at-scene and follow-up investigation along with the basics of interviewing and interrogation.

**IoT Integration Career Development** 10631101 2 Credits

Explore career and professions related to the cross roads of Operational Technology and Informational Technology.

**IoT Integration Field Study** 10631110 1 Credits

Enhance your IoT Integration Specialist skills by investigating applications in a variety of industries. Research and selection of a field study or job shadow will be the key focus of this course

**Irrigation Maintenance** 10001118

This course is designed for students new to the irrigation industry. In this introductory course students will learn the basics of irrigation installation. Topics that will be covered include: introduction to irrigation, product identification and terminology, basics of an irrigation system, basic design considerations and reading. Hands on segments include techniques in installation, system programming, head repairs, valve repairs, low voltage wiring problem solving, and repairs to water lines.

10154103 IT Exploration 3 Credits

Students explore the Information Technology (IT) field and the various career options available to them. Customer service skills, ethics in the computer industry, servant leadership, teamwork, time management, and stress management will be covered. This course is where the student will begin to design and create their program

**IT Field Study** 10154180 1 Credits

Provides the student with job search and career readiness skills to prepare for an internship, unpaid externship or service learning project.

IT Hardware/Software Fund 10150101 3 Credits

Participants will install, configure, and troubleshoot computer components in a Microsoft Windows operating system environment in support of learning about power supplies, motherboards, fixed/removable media, volatile memory, graphics cards and uninterruptable power supplies. A variety of software, virtual devices, and cybersecurity methods will be covered such as RAID, storage spaces, preboot execution environments, hypervisors/virtualization, file/volume encryption, and media recovery/sanitization. Portable computing, local/network print protocols, Linux and macOS operating system fundamentals—including helpdesk software and essential information security practices will also be explored.

**IT Project Analysis** 10154178 3 Credits

Students will examine typical tasks of many personal and office computer installations. The student will learn about site preparation as well as the tools and steps necessary for project management and installation of operating systems and application software. Students will be required to complete and present a final project in which they will select, install, setup, test, and demo software.

**IT Systems Support** 10154137 3 Credits

In this course communication, research, and problem-solving strategies are developed. ITIL framework is introduced and various methods of support are explored. Students utilize support software for tracking, logging, and escalating of calls. Customer service techniques along with critical thinking skills are applied to resolve incidents. Students will apply knowledge gained in a student-run help desk environment.

Justice Administration 10504824 3 Credits

This course provides an exploration of our justice process and those organizations tasked with ensuring justice. It explores daily operational shift realities for line personnel along with supervisors, managers, and administrators of police, courts, and corrections.

Juvenile Justice 10504821 3 Credits

This course provides a survey of the history and development of juvenile justice, juvenile law, and the roles of stakeholders involved in the juvenile justice process.

**Landscape Construction** 3 Credits

The principles and practices for construction and installation of various landscape features in the urban environment will be introduced. Construction techniques relevant to interpreting blueprints, structural component, and following manufacturer's specifications will be covered. Safety practices will be emphasized for construction practices including: paver walks and patios, steps, irrigation systems, water features, retaining walls, and fencing. Sustainability for construction practices will be emphasized in all labs and field experiences.

Landscape Design 10001123 3 Credits

Landscape Design will emphasize drawing techniques and utilization of a computer aided drafting program. A major component of the course is to design a project emphasizing hardscaping and plant material and working with a client. A full drawing and budget presentation will be accomplished.

Landscape Maintenance 1 10001117 2 Credits

This course will provide "hands-on" learning opportunities for the students in landscape maintenance. Students will experience the operation of landscape tools and equipment, as well as learn and practice maintenance skills such as tree and shrub planting, incorporating soil amendments to planting beds, fertilizing, mulching, as well as the operation of skid steer endloaders, landscape tractors, and trucks with trailers. Students will also learn proper safety practices for equipment, tools, supplies and personal protection equipment.

Landscape Maintenance 2 10001127 2 Credits

This course will provide "hands-on" learning opportunities for the students in landscape maintenance. Students will experience the operation of landscape tools and equipment, as well as learn and practice maintenance skills such as tree and shrub planting, incorporating soil amendments to planting beds, fertilizing, mulching, as well as the operation of skid steer endloaders, landscape tractors, and trucks with trailers. Students will also learn proper safety practices for equipment, tools, supplies and personal protection equipment.

**Leadership Development** 10196190

The learner applies skills and tools necessary to fulfill his/her role as a modern leader. Learners 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.

Leadership: Conflict & Change 20890261 1 Credits

Drawing from the Phi Theta Kappa Leadership Development Studies curriculum, this course explores concepts of leadership, with a focus on the critical role that communication plays in leadership. Through experiential exercises, the study of films, and readings from the humanities, participants will explore the process of decision making, the managing of conflict, and the implementation of change.

Leadership: Philosophy & Vision 20890263 1 Credits

Drawing from the Phi Theta Kappa Leadership Development Studies curriculum, this course explores concepts of leadership, with a focus on the critical role that communication plays in leadership. Through experiential exercises, the study of films, and readings from the humanities, participants will explore philosophies of leadership, articulation of vision, and ethical consideration of leaders.

Leadership: Serving & Empowering 20890262 1 Credits

Drawing from the Phi Theta Kappa Leadership Development Studies curriculum, this course explores concepts of leadership, with a focus on the critical role that communication plays in leadership. Through experiential exercises, the study of films, and readings from the humanities, participants will explore servant leadership, the building of teams, and empowering others as leaders.

**Legal Aspects of Busn Orgs** 10110107

This course will provide students with the basic skills necessary to form a business organization, operate the organization in compliance with legal requirements, and draft legal documents involving corporate litigation.

Legal Issues for the Workplace 10196134

Each learner will demonstrate the application of legal practices in both union and non-union environments, analysis of the impact of U.S. employment laws, the impact of the global economy, the appeal process, reacting to legal charges, documenting the hiring and firing process, dealing with harassment issues, privacy issues, and summarizing legal issues facing contemporary supervisors.

**Legal Research** 10110104 3 Credits

A course that demonstrates the use of search materials, including computerized searches, to locate relevant case law, statutory law, and administrative law as well as secondary sources and to use proper citation format and updating materials.

10110135 Legal Technology

This course for Paralegal majors will provide learners with practical knowledge of the application of computers in the legal environment. The course will consist of handson experience in the application of legal software and the internet to the current practice of law.

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Legal Writing 10110105 3 Credits

This course addresses the principles of effective legal writing and its fundamentals. Students will draft legal memoranda, memoranda, case briefs, pleadings, motions, legal correspondence, and other forms of correspondence to gain skills in communicating legal concepts in various areas of the law. The students will also learn to perform analytical writing and communicate it effectively in writing.

Linux Admin 10150137 3 Credits

Topics covered in this course are installation and deployment of a UNIX operating system, system start-up and shutdown procedures, basic and advanced file system management, device management, backup and system recovery, syslog configuration, network configuration, user accounts and permissions, remote administration, and system security permissions.

Livestock Management 10006179 3 Credits

Students study the principles and processes of reproduction, genetics, live and carcass evaluation, and health and management of livestock. Field trips and hands-on activities will be used to effectively reinforce the material presented in class. Students will demonstrate the ability to perform profitability comparisons.

Livestock Nutrition Principles 10006171 3 Credits

The student will demonstrate how to formulate and balance rations for all forms of livestock. In addition, they will also be able to know the nutritional needs of various species and identify different feedstuffs. Students will be familiar with the laws and regulations on livestock feeding along with reading, interpreting, and making recommendations from feed test reports and tags. They will also be able to successfully understand the digestive systems of monogastric and ruminant animals.

Livestock Nutrition 30090363 3 Credits

This course is designed to enable the student to apply basic principles of livestock nutrition and determine livestock nutrient requirements. Inventorying and evaluating feeds, calculating cost of production for livestock enterprise and measuring livestock feeding efficiency through business analysis are included in this class. Students will also be able to develop Standard Operating Procedures for livestock feeding and investigate emerging trends including new technology, industry regulations, consumer trends and public policy. All classes in the Farm Business and Production management program include instruction on financial analysis and management of the farming operation.

# Livestock/Farmstead Equipment Management 30090373

3 Credits

Livestock management provides instruction on the various phases of selection, breeding, herd health, raising of replacement stock, and marketing livestock and livestock products. It includes the selection, operation, and maintenance of milking, feed, ventilation, manure handling, equipment and farm buildings. Students will learn to determine cost of ownership for farm buildings and equipment and formulate standard operating procedures for livestock. All classes in the Farm Business and Production management program include instruction on financial analysis and management of the farming operation.

# Machine Learning - Operations Management 10196150

3 Credits

This course begins by helping you reframe real-world problems in terms of supervised machine learning. Through understanding the "ingredients" of a machine learning problem, you will investigate how to implement, evaluate, and improve machine learning algorithms. You will explore a variety of machine learning algorithms and their uses in realistic scenarios.

Machining for Maintenance 10420105 3 Credits

This course is a basic introduction to machining and machine tool concepts for industrial maintenance personnel. Fundamental lathe, mill and drill processes will be covered along with layout skills and tool usage in a hands-on lab environment.

Management of HIM Resources 10530167 3 Credits

Examines the principles of management to include planning, organizing, human resource management, directing, and controlling as related to the health information department.

Managing for Quality 10196192 3 Credits

The learner applies the skills and tools necessary to implement and maintain a continuous improvement environment. Learners will demonstrate the application of a personal philosophy of quality, identifying all stakeholder relationships, meeting or exceeding customer expectations, a systems-focused approach, using appropriate models and tools, managing a quality improvement project, and measuring effectiveness of continuous improvement activities.

# Manual Torch Metal Cutting Theory & Tech 10442106

1 Credits

This course is designed to teach theory and technique of cutting and heating for the purposes of: loosening; joint preparation for welding and repair; structural shape coping using oxy-acetylene, air carbon arc and plasma arc techniques.

Manufacturing Math 1 31804334 1 Credits

Essential math skills for entry level manufacturing careers. Topics covered include addition, subtraction, multiplication, and division of fractions and decimals; English (customary)- metric conversion; and hands-on applications involving measurement and tolerances. Prerequisite: Passing score on skills assessment.

Marketing Career Preparation 10104103 3 Credits

Develop skills to enhance your success. You will be introduced to personal branding by determining your strengths and the image you want to project as it applies to your personal life, your college life, and your career as a marketer. You will explore who you are, what motivates you to gain new knowledge and skills, and plan the path you want your professional development to take. You will look into marketing careers that match those skills, develop a marketing program academic plan, and start your own website portfolio that demonstrates your skills.

Marketing Financials 10104110 3 Credit

This class is designed to expose the learner to basic accounting concepts, which will provide a framework for the general financial analysis all businesses conduct. The student will learn the basic accounting cycle along with the fundamental principles of depreciation, inventory, cash flow, accruals and deferrals. With this context in place, the student will then be able to construct and analyze common financial statements. Particular attention also will be placed on the pricing of a product. Concentration will be centered on break-even analysis and cost behavior.

**Marketing Principles** 10104114 3 Credits

Marketing Principles represents the comprehension of the marketing concept and functions. Major concepts include segmentation, marketing mix, buyer behavior. decision support systems, consumer and business-to-business products, multicultural and global aspects, business ethics, and e-business. Marketing careers are explored.

Marketing-Research 10104155 3 Credits

Designed for students to generate and develop marketing information for use in effective decision making. The roles and methodology of conducting primary and secondary research are emphasized. Use of the Internet and survey software are used to conduct actual marketing research for a business.

10804133 3 Credits Math & Logic

Students will apply problem-solving techniques from discrete mathematics. Topics include symbolic logic, basic set theory, algebra, base number systems, and Boolean algebra.

**Math Analysis** 20804229 5 Credits

An integrated treatment of topics from college algebra and trigonometry lays a sound foundation for higher courses in mathematics. Includes linear and quadratic functions, other polynomial functions, rational functions, radical functions, exponential and logarithmic functions, the trigonometric functions, and some analytic geometry in the plane.

Math w Business Apps 3 Credits

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.

20804210 **Mathematics for Decision Making** 4 Credits

This course is designed to teach students the mathematical skills needed for decision making in the 21st century. Topics for this course include set theory, syllogisms and fallacies, counting and probability, financial mathematics, and statistical concepts.

**Mechanical Drives** 10620144 2 Credits

Mechanical drive components and systems are studied with emphasis on selection, application and proper installation techniques. Topics include machine safety, torque, power, efficiency, bearings, couplings, alignment, v-belt drives, chain drives, gear drives and multi-shafting drives. Industrial equipment is used to present these topics.

**Mechanisms and Dynamics** 10606156 3 Credits

Mechanisms: A study of the motion of mechanical systems using graphical and analytical methods as well as 3D computer modeling and simulations tools. Topics include the displacement of linkages, velocity and acceleration calculations and force analysis.

**Mechatronics Internship** 10664106 1 Credits

In this course, students will be exposed to various activities within advanced manufacturing as they relate to the design, implementation, and maintenance of automated industrial systems. Students will work with an employer partner to experience how industrial maintenance, automation, and IT are all interconnected.

Med Law, Ethics & Prof 10160120 2 Credits

Prepares students to display professionalism and perform within ethical and legal boundaries in the health care setting. Students maintain confidentiality, examine legal aspects of the medical record, perform quality improvement procedures, examine legal and bioethical issues, and demonstrate awareness of diversity.

31509307 Med Office Insurance & Finance 2 Credits

Introduces medical assistant students to health insurance and finance in the medical office. Students perform bookkeeping procedures, apply managed care guidelines, and complete insurance claim forms. Students use medical coding and managed care terminology to perform insurance related duties.

Medical Admin Procedures 10501110 2 Credits

Introduces students to office management, business administration, and the electronic medical record (EMR) in the medical office. Students learn to schedule appointments, perform filing, record keeping, telephone and reception duties, communicate effectively with patients and other medical office staff, keep an inventory of supplies, and prepare insurance claim forms.

**Medical Admin Professional Capstone** 10160150 1 Credits

Enhances the student's ability to apply technical skills, to work productively alone and as a team member, to communicate effectively, and to demonstrate appropriate ethics and behavior in a professional workplace environment. Students will independently find a location to work in an office directly related to their educational training for the required number of hours.

**Medical and Psychosocial Conditions** 10514172 3 Credits

Introduces medical and psychosocial conditions as they relate to occupational therapy practice. Topics include etiology, symptomatology treatment and contraindications

Medical Assistant Practicum 31509310 3 Credits

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.

AAMA required Practicum - 160 minimum hours (AAMA minimum) up to 216 hours.

Medical Asst Admin Procedures 31509301 2 Credits

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, record keeping, telephone and reception duties, communicate effectively with patients and other medical office staff, and keep an inventory of supplies.

Medical Asst Clin Procedures 1 31509304 4 Credits

Introduces medical assistant students to the clinical procedures performed in the medical office setting. Students perform basic examining room skills including screening, vital signs, patient history, minor surgery and patient preparation for routine and specialty exams in the ambulatory care setting.

31509306 3 Credits Medical Asst Clin Procedures 2

Prepares medical assistant students to perform patient skills in the medical office setting. Students perform clinical procedures including administering medications, performing an electrocardiogram, assisting with respiratory testing, educating patients / community, and assisting with emergency preparedness in an ambulatory care setting.

31509303 Medical Asst Lab Procedures 1 2 Credits

Introduces medical assistant students to laboratory procedures commonly performed by medical assistants in a medical office setting. Students perform Clinical Laboratory Improvement Amendments (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.

Medical Asst Lab Procedures 2 31509305 2 Credits

Prepares students to perform phlebotomy and Clinical Laboratory Improvement Amendments (CLIA) waived hematology, chemistry, immunology and laboratory procedures commonly performed by medical assistants in the ambulatory care setting.

**Medical Emergencies** 10531930 3 Credits

This course teaches the paramedic student to integrate assessment findings with principles of anatomy, physiology, epidemiology, and pathophysiology to formulate a field impression and implement a comprehensive treatment plan for a patient with a medical complaint.

**Medical Instrumentation** 10605206

Research and study of a variety of medical equipment devices commonly encountered in the clinical healthcare environment. The functional application, basic theory of operation, categorization, typical safety concerns, and typical maintenance of a wide variety of medical devices will be covered. Basic building blocks that make up medical devices will be investigated. For a selection of medical devices hands on experiences will include utilization of documentation, testing, safety, and maintenance. Supporting concepts in medical terminology, anatomy and physiology, and chemistry will be explored and used.

Medical Law, Ethics & Profess 31509309 2 Credits

Prepares students to display professionalism and perform within ethical and legal boundaries in the health care setting. Students maintain confidentiality, examine legal aspects of the medical record, perform quality improvement procedures, examine legal and bioethical issues, and demonstrate awareness of diversity.

**Medical Office Finance** 10106189 2 Credits

Introduces students to financial functions in the medical office setting. Students perform bookkeeping and billing procedures. Students learn about the revenue cycle and apply financial principles.

Medical Office Insurance 10106190 2 Credits

Introduces students to health insurance in the medical office setting. Students apply managed care principles and prepare health insurance claim forms. Students use coding and managed care terminology to perform insurance related duties.

10501101 3 Credits Medical Terminology

Focuses on the component parts of medical terms: prefixes, suffixes and root words. 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.

### Mental Health & Community Concepts 10543110 2 Credits

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.

Mfg and Eng Materials 10420119 3 Credits

Material selection is a critical component of the design and production process. If the properties of the material selected do not meet the specifications of the product, or if the material selected is not appropriate for the required manufacturing operations, product failure will be the result. This learning experience will introduce you to the properties, classifications, and applications of the materials used in the design and manufacture of a product. You will assess the characteristics of materials that impact the selection and utilization of materials in design and manufacturing through lab activities, problem solving, independent study and research.

Mfg Processes/Machining CAM

This course examines primary and secondary manufacturing processes. You will use the tools of traditional material removal processes by "making a part." You will also study forming, casting, and other manufacturing techniques and their applications. Final assembly and finishing are examined. You will be required to visit manufacturing facilities to observe the day-to-day operations of modern manufacturing. The student will learn a computer aided manufacturing (CAM) software. They will model a part and then take the part into the CAM software and machine the part using the CNC machine.

Microbiology 10206197 4 Credits

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.

**MLT Seminar** 10513160 1 Credits

Topics to include current and/or emerging trends; writing techniques, resume writing and interviewing skills; Board of Certification Exam preparation

### **Mobile Applications Development** 10152185

3 Credits

This course will explore application development on mobile devices including cell phones, tablets and other hand-held devices. The primary development language in this class is Java but other programming languages may be incorporated as necessary. The class will be based on the Android operating system but other operating systems may be utilized as necessary. Topics will include; touch screen interfaces; utilization of API's from companies like Google; issues when working with small screens and security.

**Motors and Drives** 10620120 2 Credits

This course expands knowledge of motor controls and motor control systems. VFDs will be introduced and applied for control of a three phase motor. Positioning systems using both stepper and servo drives are explored. Application of industrial equipment is emphasized and students are required to use and interpret equipment manuals to control and integrate the equipment. Control of DC and single phase motors are also introduced.

**Music Appreciation** 

Through an examination of select contemporary musical styles and a survey of the development of Western music, students will learn how to actively listen to music and identify salient traits. Students will explore musical meaning, musical reception, and musical aesthetics as they apply to different cultures and different time periods.

20803214 Native American History

Introductory course focusing on Native American history from the pre-Columbian era to the present. Topics include origins, cultures and spirituality, economics, interactions with Euro-Americans and the US government (including removal and assimilation), alliances and rivalries, military strategies, native leadership, and tribal sovereignty. Explores the connections between native history and current affairs, with emphasis on native voices.

**Network Security 1** 10150118

Provides an understanding of information security management and technical components of security. The material covers the history and terminology of security and an overview of how to manage an information security program. Topics include legal and ethical issues, risk management, security design (logical and physical) and maintenance. Case studies and hands-on scenarios provide students with opportunities to create solutions to security issues.

**Network Security 2** 10150119 3 Credits

Provides hands-on training and exposure to information security management techniques and information assurance tools. Students will complete lab and project-based activities enabling them to defend systems, networks, and applications against practical and viable computing threats. Students will also learn countermeasures for defending the network infrastructure through real-life situational training exercises. Topics include intrusion detection and prevention systems (IDS/IPS), firewalls, log collection, e-Discovery/forensics, incident response, anomaly detection, content filtering, system hardening, malware analysis, and encryption.

**Network Service and Support** 10150198

Students apply the skills and techniques of an information technology (IT) professional supporting an IT installation. IT technology is constantly changing. Students learn how to keep current on IT trends, supporting, exploring, selecting and implementing IT changes. The course uses a variety of tools, exploring the use of project management techniques and software, investigates the status of current and future IT emerging technologies, and implements a VoIP strategy.

**Nursing Advanced Clinical Practice** 10543115 3 Credits

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.

**Nursing Advanced Skills** 10543112 1 Credits

This course focuses on the development of advanced clinical skills. Content includes advanced IV skills, blood product administration, chest tube systems, basic EKG interpretation and nasogastric / feeding tube insertion.

**Nursing Assistant** 30543300 2 Credits

Prepares students for employment as nursing assistants. The program also prepares students for other health-related programs. Students will be required to demonstrate the following skills under the supervision of a licensed nurse: communication, basic nursing assistant and personal care skills, attention to client's rights, and care of clients with dementias. The program is recognized by the Wisconsin Department of Health Services as a nurse-aide training program. Upon successful completion of the program, the student is eligible to take the Wisconsin Nursing Assistant competency evaluation for inclusion on the Wisconsin Nurse Aide Registry and employment in nursing homes, hospitals, home health agencies, hospices, CBRF's, assisted living centers and homes for the developmentally disabled.

**Nursing Clinical Care Across the Lifespa** 10543107 2 Credits

This clinical experience applies nursing concepts and therapeutic interventions to clients across the lifespan. It also provides an introduction to concepts of teaching and learning. Extending care to include the family is emphasized.

**Nursing Clinical Transition** 10543116 2 Credits

This clinical experience integrates all knowledge learned in the previous courses in transitioning the role of the graduate nurse. The course promotes relatively independent clinical decision, delegation, and works collaboration to achieve client and organizational outcomes. Continued professional developments fostered.

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## **Nursing Complex Health Alterations I**

### 10543109

3 Credits

Complex Health Alterations I 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.

## **Nursing Complex Health Alterations II**

10543113

3 Credits

Complex Health Alterations II 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.

**Nursing Fundamentals** 10543101 2 Credits

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.

**Nursing Health Alterations** 10543105 3 Credits

This course elaborates upon the basic concepts of health and illness as presented in Nursing Fundamentals. It applies theories of nursing in the care of clients through the lifespan, utilizing problem solving and critical thinking. This course will provide an opportunity to study conditions affecting different body systems and apply therapeutic nursing interventions. If will also introduce concepts of leadership and management.

**Nursing Health Promotion** 10543106

This course focuses on topics related to health promotion for individuals and families. 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.

#### **Nursing Intermediate Clinical Practice** 10543111

3 Credits

This intermediate level clinical course develops the Registered Nurse (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.

**Nursing Intro Clinical Practice** 10543104 2 Credits

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

## **Nursing Management & Professional Concep**

10543114

2 Credits

This course covers nursing management and professional issues related to the role of the Registered Nurse (RN). Emphasis is placed on preparing for the RN practice.

**Nursing Pharmacology** 10543103

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.

10543102 3 Credits Nursing Skills

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, tracheotomy 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.

10116180 3 Credits Occupational Safety & Health

Human resources is often responsible for safety and health issues in an organization. In this course, students will learn how to apply Occupational Safety and Health Administration (OSHA) regulations and fulfill safety training requirements. This class is fully interactive with instruction on job-specific subjects as well as the basics of how to read and interpret OSHA regulations.

# On-Site BioMedical Clinical Experience 1

10605203

3 Credits

The focus of this course is to practice typical HTM (Healthcare Technology Management) tasks in a clinical environment while furthering the knowledge base related to medical equipment. Laboratory sessions occur primarily in an actual or simulated hospital environment accomplishing inspection, maintenance, documentation, and troubleshooting and repair of medical instrumentation. Specific operational, calibration, preventive maintenance, and repair procedures as prescribed by the manufacturer and regulatory agencies are implemented. Professional job search skills are practiced, and an internship procured or a HTM capstone project approved. Various devices and concepts are also researched.

**Operations Management** 10102131

Learners apply the skills and tools necessary to contend with problems facing management and employees, with special emphasis on operational planning, processes, reporting, and performance measurement. Problem solving is emphasized.

Oral/Interpersonal Comm 10801196 3 Credits

Focuses upon developing speaking, nonverbal communication, and listening skills through individual speeches, group activities, and other projects.

**Ordinary Differential Equations** 20804255 4 Credits

Techniques in Ordinary Differential Equations is designed for students of mathematics, science, and engineering. This course presents techniques for solving and approximating solutions to ordinary differential equations. Topics will include solving first order differential equations, solving second and higher-order linear differential equations, Laplace and Fourier transforms, systems of first order linear differential equations, numerical methods, and Sturm-Liouville Theory.

**Organizational Development** 10196168 3 Credits

Learners apply skills and tools necessary to deal with organization behavior and change. Learners apply intervention strategies to deal with diversity, restructuring, globalization, team building, confict resolution and process consultation. Learners analyze how an organization's goals, decision-making, performance management and planning impact goal attainment, business outcomes, organizational structure, job design and employee participation.

**Organizational Training & Dev** 10116159 3 Credits

Following the study of the basics of training, students analyze local organizations to determine both training needs and the most appropriate training methodologies, in order to solve common business problems. Teams of students develop training plans, create a sample lesson plan, and present the lesson to the class.

10001113 Ornamental Plant Health Care 3 Credits

The identification of and control of insects and diseases, with a focus on plant health care and maintenance will be emphasized in this course. An integrated pest management approach in diagnosing pest problems and the control of pests both natural and cultural. Physical and chemical applications will be included. Calibrations, laws, regulations, safety and ecological impact are also covered. Training and testing for the Wisconsin Commercial Pesticide Applicator Exam, Category 3.0 Landscape and Turf is part of this course.

10410101 OSHA for Woods 1 Credits

In this course students will study the following: Introduction to OSHA, Focus Four Hazard Fall protection, Struck-by hazards, Caught-in or between hazards, Electrocution hazards, Personal protective and life-saving equipment, health hazards in construction, scaffolds and ladders, and other construction related safety concerns.

**OT Pediatric Practice** 10514190 4 Credits

Explores interventions relative to major pediatric diagnoses seen in OT practice. Evaluation, treatment interventions, assistive technology and documentation are emphasized within the context of the child's occupations.

**OT Performance Skills** 10514174 4 Credits

Emphasis on the development of skills related to assessment and intervention in the areas of sensory, motor, cognition and communication.

**OT Phys Rehab Practice** 10514189 4 Credits

Explores interventions relative to major physical disability diagnoses seen in OT practice. Evaluation, treatment interventions, , assistive technology and documentation are emphasized relative to the biomechanical, neurodevelopmental and rehabilitative approaches to practice.

**OT Theory and Practice** 10514176 3 Credits

Examines the theoretical foundations that guide Occupational Therapy (OT) practice. Apply group dynamics and demonstrate leadership skills.

10514184 2 Credits

Integrate classroom theory and practice into a Fieldwork Level 1 experience. Provides experiences to assist in the development of communication, professional and observational skills

10514186 **OTA Fieldwork IIA** 5 Credits

Develop skills and behaviors necessary for entry level occupational therapy assistant practice. Provides a different clinical practice setting than Fieldwork II-B

5 Credits **OTA Fieldwork IIB** 10514187

Develop skills and behaviors necessary for entry level occupational therapy assistant practice. Provides a different clinical practice setting than Fieldwork II-A.

**OTA Practice and Management** 10514185 2 Credits

Provides opportunities to practice clinical management skills, continuous quality improvement measurement, and administrative concepts and procedures. Students create a professional development plan.

**Overview of Criminal Justice** 30504503 1 Credits

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.

**Overview of Investigations** 30504506 2 Credits

Through classroom lecture, on-campus lab, and WI Department of Justice 720 Academy integration exercises students will learn and apply skills addressed in the following Department of Justice 720 Academy curriculum framework Phase I topics: Constitutional Law I, Crimes I, Interviews, and Report Writing. The DOJ Phase I Written Examination will be administered in this course.

**Overview of Patrol Response** 30504500

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 Exercises.

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Overview of Tactics 30504510 1 Credits

Through classroom lecture, and on-campus lab and WI Department of Justice 720 Academy integration exercises, students will learn and apply skills addressed in the following Department of Justice 720 Academy curriculum framework Phase I topics: Fundamentals of Firearms, Vehicle Contacts I, Officer Wellness, and DAAT.

Paralegal Internship/Field St 10110143 3 Credits

Paralegal majors will be responsible for finding law-related employment and working for the required amount of hours in order to gain occupational experience.

Paramedic Cardiology 10531916 4 Credits

This course teaches the paramedic student to integrate assessment findings with principles of cardiovascular anatomy, physiology, epidemiology, and pathophysiology to formulate a field impression and implement a comprehensive treatment plan for a patient with a cardiovascular complaint.

Paramedic Medical Principles 10531912 4 Credits

This course addresses the complex depth of anatomy, physiology, and pathophysiology of major human systems while also introducing the paramedic students to the topics of shock, immunology, and bleeding.

Paramedic Portfolio 1 10531931 2 Credits

This course provides the student with the opportunity to enhance his or her learning through the practice of paramedicine in simulation or in the health care environment. The experiences will be in simulation or with actual patients under the supervision of instructors or approved preceptors. Students will also participate in formal high-fidelity human patient simulator experiences and assessment as a part of this course.

Paramedic Portfolio 2 10531932 2 Credits

This course provides the student with the opportunity to enhance his or her learning through the practice of paramedicine in simulation or in the health care environment. The experiences will be in simulation or with actual patients under the supervision of instructors or approved preceptors. Students will also participate in formal high-fidelity human patient simulator experiences and assessment as a part of this course.

PARAMEDIC RESPIRATORY MGT. 10531915 2 Credits

This course teaches the paramedic student to integrate complex knowledge of anatomy, physiology, and pathophysiology into the assessment to develop and implement a treatment plan with the goal of assuring a patent 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.

Paramedic Trauma 10531920 3 Credits

This course teaches the paramedic student to integrate assessment findings with principles of anatomy, physiology, epidemiology, and pathophysiology to formulate a field impression and implement a comprehensive treatment plan for an acutely injured patient.

Parametric Design 1 10606115 3 Credits

This course is designed to introduce students to the concepts, commands, and techniques of parametric modeling. The student will construct "intelligent" solid models, create and constrain assemblies and create 2D drawings, balloons, parts lists and reference dimensions from the 3D models.

Parametric Design 2 10606133 4 Credits

Students will learn how to select and model drive systems including gears, chain drives, belt drives, and cams. Advanced software topics such as presentation files, using parameters to creating I-parts; derived parts and adaptivity will also be covered. We will also cover manufacturing requirements for castings, machined parts, sheet metal and welding. Correct drawing layout and annotation will be emphasized for detail and assembly drawings.

Payroll Accounting 10101130 3 Credits

The course covers the basic rules and methods of calculating payroll. A further study of the rules and regulations governing employer/employee payroll are studied. The various federal and state forms are examined and completed. Proper and timely reporting of payroll is discussed. The student completes a manual and computerized payroll project. An understanding of debits and credits is highly recommended.

# Personal and Professional Development 10106103

3 Credits

Students will develop strategies to enhance success in college and in an office professional career. These skills include self-assessment, interpersonal skills, problem solving, time management, study skills, learning styles, communication skills, and critical thinking. This course will make students aware of the resources available to them as a student. Additionally, student will learn introductory level of presentation software.

# Personal Brand Management for Designers

10304151

2 Credits

An in depth look at understanding our personal brand through exploration of characteristics, skills, and strengths, which are then illustrated through our portfolio, resume, and social media narratives. Employment possibilities in design are discussed.

Personal Brand Management 10104182 3 Credits

This course is designed to familiarize yourself with your digital trail, find ways to shape and build it, and prepare you for entry into the workplace. Online search strategies, vision boards, a career planning guide, Student Employment Services, networking, researching current marketing jobs, current readings, and members of the business community will be used. Additionally, effective job entry preparations such as competitive resumes, cover letters, applications, thank you letters, various types of interviewing, job searches, appropriate business professional dress, and portfolios will be addressed.

Personal Leadership Strategies 10196164 3 Credits

The learner applies the skills and tools necessary to deal with the time management, stress, and related challenges to a supervisor. Each learner will demonstrate the application of time management techniques, personal planning, continuous learning, valuing rights and responsibilities of others, effective communication, assertiveness, and dealing effectively with stress.

**Pest Management Principles** 10006120 3 Credits

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

Pharm for Allied Health 31509308 2 Credits

Introduces students to medication classification and basic pharmacology principles. Students apply basic pharmacodynamics to identify common medications and calculate dosages in preparation for medication administration.

Philosophy of Leadership 20890267 3 Credits

Using the Phi Theta Kappa Leadership Development Program curriculum, this course explores the concept of leadership. Through experiential exercises, the study of films, and readings from the humanities, participants will develop a personal philosophy of leadership, an awareness of moral and ethical responsibilities of leadership, and an awareness of one's own style of leadership.

Philosophy of the Arts 20809265 3 Credits

In this course we will examine some of the traditional aesthetic theories and some contemporary debates within the philosophy of art. We will ask crucial questions about the philosophy of beauty, art, and criticism. We will examine their histories, their arguments, and finally try to come up with our own understanding of each of these fields in an integrated whole. We will also use art experience to apply all of the various philosophies of art.

10513107 3 Credits Phlebotomy Skills & Experience

The phlebotomy certificate course prepares an individual for employment as a phlebotomist in a clinic or hospital. Students are trained to efficiently and safely obtain blood samples. The course consists of a combination of lecture, student laboratory, and clinical experience.

Phlebotomy 10513111 2 Credits

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

#### Photovoltaic Design & Installation 1 10480111

3 Credits

Students learn the details involved in the mechanical and electrical integration of a PV system. Topics include system components, product specifications, product integration, racking system design capabilities and limits, system diagramming, configurations, safety, common design mistakes and solutions, installation techniques. This course will involve students in the installation of a photovoltaic system.

30504501 1 Credits **Physical Fitness** 

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 and Officer Wellness Suicide Prevention.

### Pipefitting for Mfg. Maintenance 10462105

3 Credits

This course will introduce students to basic pipe fitting skills and knowledge. Topics include: standard tools, materials, and fitting techniques used in manufacturing pipefitting applications. Upon completion, students should be able to demonstrate basic pipefitting aptitude.

**PLC Applications** 10620158

This course will cover fundamental PLC hardware and wiring. This course includes PLC CPU, discrete and analog input/output modules, and circuit wiring with basic industrial control devices hardwired to the PLC modules. Additionally, programming an address-based touch screen and interface it with a PLC will be completed. Interfacing between personal computers, PLCs, and touch screen panels along with drivers, will be applied.

**Police Administration** 10504834 3 Credits

This course provides an examination of police organization and administration. It emphasizes managerial theory, motivation, and provides guidance on the development of a competent and appropriate supervisory, managerial, and administrative style for the leadership of police personnel.

10504828 3 Credits

This course provides an exploration of the history of American police, fundamental problems in policing, the career path of police officers, and an overview of police organizations from line officers to command staff.

**Precision Ag Technologies** 10006170 2 Credits

Precision Ag Technologies provides the student the opportunity to experience studies in agricultural precision technologies including bio-technologies, application industries, livestock equipment, precision farming, financial resource management, plant protection, sustainable agriculture, environmental impacts of agriculture, agricultural workforce, and agricultural production.

Principles of Design 10304120 1 Credits

An in-depth study in foundational principles and elements of design that form the conceptual basis from which to solve and evaluate design problems.

### 10503192 **Principles of Emerg Svcs Safety & Surviv**

3 Credits

This course introduces the basic principles and history related to the national firefighter life safety initiatives, focusing on the need for cultural and behavior change throughout the emergency services.

**Principles of Emergency Services** 10503191 2 Credits

Provides an overview to fire protection; career opportunities in fire protection and related fields; philosophy and history of fire protection/service; fire loss analysis; organization and function of public and private fire protection services; fire departments as part of local government; laws and regulations affecting the fire service; and fire service nomenclature.

### **Principles of Emergency Vehicle Response**

30504504

2 Credits

Through classroom lecture, and on-campus lab, and WI Department of Justice 720 Academy integration exercises students will learn and apply skills addressed in the following Department of Justice 720 Academy Phase II topics: Emergency Vehicle Operation and Control (EVOC) and Vehicle Contacts II.

10104164 3 Credits **Principles of Inside Sales** 

This course will focus on the tools, strategies and techniques of inside sales including: pre-call planning, prospecting and qualifying leads, developing value statements, the role of social media in the sales process and follow up. This course will place special emphasis on the hands on application of a Customer Relationship Management (CRM) system and other technologies.

**Principles of Investigations** 30504508 1 Credits

Through classroom lecture, and on-campus lab, and WI Department of Justice 720 Academy integration exercises students will learn and apply skills addressed in the following Phase II topics of the WI Department of Justice 720 Academy curriculum framework: Constitutional Law II, Physical Evidence Collections, and Crisis Management. The Phase II Written Exam will be given in this course.

**Principles of Macroeconomics** 20809211 3 Credits

This course provides an introduction to basic economic principles with applications to current economic problems affecting the overall performance of a nation's economy. The course begins with an analysis of the role of markets and prices in an economy. Topics include the causes and consequences of unemployment, inflation, and economic growth; the role of money and banking in the economy; the role of government taxing and spending policies to correct market failure and stabilize the economy; the implications of budget deficits and the national debt; and the implications of an increasingly global economy. This course is designed to meet the need for college transfer credit.

**Principles of Management** 10102134 3 Credits

The learner will explore the role of effective management within organizations. Emphasis is placed on demonstrating understanding of the four main categories of management responsibilities: planning, organizing, leading and controlling. Students will work on determining their own strengths and weaknesses with regard to management and use case studies and other classroom activities to strengthen these skills.

**Principles of Microeconomics** 20809212 3 Credits

This course examines the behavior of individual decision makers, primarily consumers and firms. Topics include choices of how much to consume and to produce, the functioning of perfectly and imperfectly competitive markets, the conditions under which markets may fail, and arguments for and against government intervention. The student applies the fundamental tools of economics to real world problems.

Principles of Security 10504855

This course provides an overview of the history of the private security and crime prevention, and asset protection of private security. It explores the concepts of security techniques and access control equipment.

Principles of Sociology 20809203

Defines and examines the concepts and realities of social structure, culture, socialization, complex organizations, class, inequality, social groups and social change. Special emphasis is given to institutions such as the family, religion, education, politics, economics and the media.

**Principles of Sustainability** 10806112 3 Credits

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.

30504509 5 Credits Principles of Tactics

Through classroom lecture and on-campus lab and integration exercises, students will learn and apply skills addressed in the following Phase II topics from the Department of Justice 720 Academy curriculum frameworks including: Professional Communication Skills II, DAAT, Firearms II, Tactical Response, and a Tactical Emergency Casualty Care.

**Profess Prac in Human Services** 10520106 3 Credits

This course prepares students to enter a community field experience and the human services profession. Emphasis is placed on gaining a working knowledge of professional codes of ethics, social / ethical issues, and professional behavior. Students learn what to expect and how to prepare for field placement, credentialing, professional development, and maintaining vitality within the field.

**Profession & CBET Prep** 10605216 1 Credits

Students will prepare for a CBET (Certified Biomedical Equipment Technician) practice exam focusing on solidifying program knowledge base in electronics, codes/ standards/safety practices, computers/networking, anatomy/physiology, medical equipment, communications, and HTM problem solving.

# **Professional Development Strategies**

10196128

3 Credits

Students will develop personal and learning skills that will enhance their success in the Supervisory Management program. Students will learn program expectations, accelerated learning skills, and how to research, write and present information. The course will prepare learners to use Blackboard, the Internet and presentation software. Emphasis is placed on developing communication, team building and interpersonal skills. Students will put together a student success plan that includes a personal development plan, career goals, and a resume. Time management skills will also be developed to assist with balancing family, school, and work.

10530196 **Professional Practice** 3 Credits

Applies previously acquired skills and knowledge by means of clinical experiences in the technical procedures of health record systems and discussion of clinical situations. This is the first of a two semester sequence of supervised clinical experiences in health care facilities.

**Professional Profile Dvpt** 10102143 3 Credits

Prepares learners to use strategies to seek, obtain and retain employment. Learners develop a job search plan, prepare a resume and cover letter, complete application forms, build a professional profile and prepare for job interviews. Students will develop their own professional portfolio and present it to potential employers.

10104128 Professionalism and Success 3 Credits

Students will learn a wide-range of strategies to enhance their professional success in careers in customer service and sales including: self-assessment, time management, multi-tasking, professional communication skills, stress management, career development, problem solving and business etiquette. Special attention will be paid to developing skills that will help students navigate the realities of the rapidly changing 21st Century workplace.

**Programming for Integration** 10152130 3 Credits

Introduces students to programming using the powerful Python language. Python is an interpreted, object-oriented, high-level programming language with dynamic semantics. Its high-level built in data structures, combined with dynamic typing and dynamic binding, make it very attractive for Rapid Application Development. Python is used in modern industry to support mission-critical applications. Students will write applications using Python and apply that to machine learning algorithms.

**Project Investment Appraisal** 10481113 3 Credits

Students will study the concepts of energy modeling, energy optimization, energy reduction strategies, and cost benefit analysis. They will research incentives, financial impacts of lighting retrofits, envelope improvements, and energy management plans. Students will also learn and apply the financial concepts of simple payback, internal rates of return and net present value. The software taught and applied in this course will include: Microsoft excel, REMrate, BEopt, and eQUEST.

**Project Management Principles** 

Introduces the project management process for successful completion of goals while managing constraints of scope, resources, costs and time. You will learn the steps to: Identify needs and create a project proposal; Create a project plan (using work breakdown structures, activities definitions and relationships); Create a schedule (using network diagrams, durations and dates); Identify critical path activities; Create a budget; Monitor the project's progress using Gantt charts; Modify the plan as needed. You will practice these steps for a project and participate in leadership, team building and communication activities to allow for successful teamwork in completing the project.

**Project Management** 10196188 3 Credits

Learners explore the importance of project management in business environments. Learners create successful proposals and plan, schedule and budget for a project. Team leadership and communication are practiced. Microsoft Project assists them in monitoring the progress of the project, including the use of Gantt Charts, Program Evaluation and Review Technique (PERT) and Critical Path Method (CPM). Includes professional presentation of your project.

**Promotion Principles** 10104184 3 Credits

Students work in teams to select and research a company, brand, or business, create an institutional and event promotion campaign and buy efficient media in order to influence a data-defined market segment. The markets may be local, national, or global.

**Psychosocial Practice** 10514175 3 Credits

Examines the role of the Occupational Therapist (OT) in the service delivery to individuals affected by mental health conditions. Provides opportunity for development of skills related to the assessment and interventions of psychosocial needs.

PTA Applied Kinesiology 1 10524156 4 Credits

Introduces basic principles of musculoskeletal anatomy, kinematics, and clinical assessment. Students locate and identify muscles, joints, and other landmarks of the lower quadrant in addition to assessing range of motion and strength.

PTA Applied Kinesiology 2 10524157 3 Credits

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.

**PTA Biophysical Agents** 10524143 4 Credits

Develops the knowledge and technical skills necessary to perform various biophysical agents likely to be used by a PTA.

PTA Cardio & Integ Mgmt 10524146 3 Credits

Integrates concepts of cardiopulmonary and integumentary pathologies, physical therapy interventions, and data collection in patient treatment.

PTA Clinical Practice 1 10524147 2 Credits

Provides a part time clinical experience to apply foundational elements, knowledge, and technical skills pertinent to physical therapy practice.

PTA Clinical Practice 2 10524148 3 Credits

Provides another part time clinical experience to apply foundational elements, knowledge, and technical skills required of the entry level physical therapist assistant in various practice settings.

**PTA Clinical Practice 3** 10524151 5 Credits

Provides a full time clinical experience to apply foundational elements, knowledge, and technical skills required of the entry level physical therapist assistant in various practice settings.

**PTA Patient Interventions** 10524139 4 Credits

An introduction to basic skills and physical therapy interventions performed by the physical therapist assistant.

PTA Princ of Musculo Rehab 10524145 4 Credits

Integrates concepts of musculoskeletal pathologies, physical therapy interventions, and data collection in patient treatment.

PTA Princ of Neuro Rehab 10524144 4 Credits

Integrates concepts of neuromuscular pathologies, physical therapy interventions, and data collection in patient treatment.

PTA Professional Issues 1 10524140 2 Credits

Introduces the history and development of physical therapy profession, legal and ethical issues, the interdisciplinary health care team, and professional communication skills.

10524150 PTA Professional Issues 2 2 Credits

Incorporates professional development, advanced legal and ethical issues, healthcare management and administration, and further development of professional communication strategies.

PTA Rehab Across the Lifespan 10524149 2 Credits

A capstone course that integrates concepts of pathology, physical therapy interventions and data collection across the lifespan. In addition, the Physical Therapists Assistant's (PTA's) role in health, wellness and prevention; reintegration, and physical therapy interventions for special patient populations will be addressed.

**PTA Therapeutic Exercise** 

Provides instruction on the implementation of a variety of therapeutic exercise principles. Learners implement, educate, adapt, and assess responses to therapeutic exercises.

**Public Speaking** 20810201 3 Credits

Includes theoretical examination of the process of communication, the role of speech in self-development, the nature of meaning and the art of persuasion. Provides practice in selecting speech topics, analyzing audiences, organizing speech content, improving speech delivery and critiquing speeches via presentation of informative and persuasive speeches. Several graded and nongraded small group discussions sharpen additional communicative skills.

**Publication Design 1** 10201104

This is a basic course in the use of the page layout software InDesign. The student will learn to utilize basic tools and key commands, place text and images, apply typographical formats, use text styles, manipulate tabs, and control design elements to create various publication designs. Before beginning this course, you should have a working knowledge of your computer and its operating system.

10201114 3 Credits **Publication Design 2** 

Publication Design 2 expands on the knowledge and skills learned in Publication Design 1. Students will make brochures, catalog spreads and multiple page documents, employing text styles, multiple master pages and complex tabs. Students will decide whether process color or spot color is the correct color model for different projects. This course will cover preparing a document for commercial printing, including gathering supportive materials and preparing a press-ready PDF.

**Pumps and Gear Boxes** 10620100 2 Credits

This course will introduce centrifugal pump systems and characterists along with gear box designs. Troubleshooting of common pump systems and gear boxes will explored. Additional pump systems will also be covered.

QA Lab Math 10513113 1 Credits

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.

3 Credits **Quality Customer Service** 10106106

This course addresses sensitivity in communicating with external and internal customers and understanding behavioral styles. Develop verbal and nonverbal communication skills, as well as understanding customer service in a diverse population. Emphasize teamwork, working relationships, and telephone skills.

**Quantitative Reasoning** 20804211 4 Credits

This course is intended to develop analytic reasoning and the ability to solve quantitative problems. Topics to be covered may include: construction and interpretation of graphs; descriptive statistics; geometry and spatial visualizations; math of finance; functions and modeling; probability; and logic. Appropriate use of units and dimensions, estimates, mathematical notation and available technology will be emphasized throughout the course. Note: This course satisfies Part A of the Quantitative Reasoning requirement for the UW system and is intended for students who do not plan to take any further mathematics.

Race, Class, Gender 20209217 3 Credits

This introductory course examines ethnic, racial, religious and cultural origins of Americans. The course focuses on social interactions that contribute to the understanding of different groups in diverse settings. In addition to an analysis of majority/minority relations in a multicultural context, social class and gender will also be analyzed as systems of inequality and sources of cultural difference.

**Radiation Protection and Biology** 10526197 3 Credits

Prepares radiography students to protect themselves and others from exposure to radioactivity. Students examine the characteristics of radiation and how radiation affects cell biology. Students apply standards and guidelines for radiation exposure.

Radiographic Image Analysis 10526195 2 Credits

Prepares radiography students to analyze radiographic images for quality. Students apply quality control tests to determine the causes of image problems including equipment malfunctions and procedural errors.

Radiographic Imaging 10526159 3 Credits

Introduces radiography students to the process of creating radiographic images. Students determine the factors that affect image quality including contrast, density, and distortion.

Radiographic Pathology 10526189 1 Credits

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.

10526149 Radiographic Procedures 1

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.

Radiographic Procedures 2 10526191 5 Credits

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.

Radiography Clinical 1

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.

Radiography Clinical 2 10526192 3 Credits

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.

**Radiography Clinical 3** 10526193 3 Credits

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.

Radiography Clinical 4 10526199 3 Credits

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.

Radiography Clinical 5 10526190 2 Credits

This fifth level 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.

**Radiography Clinical 6** 10526198 2 Credits

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 images in a health care setting while adhering to legal and ethical guidelines. Students are encouraged to demonstrate independent judgment in the performance of clinical competencies.

**Rapid Prototyping** 10664104 2 Credits

This course will introduce rapid prototyping as it relates to the prototype design of parts. Basic components will be designed and built using an additive process. The course will culminate in the design and manufacture of a robotic end effector that will manipulate a predetermined item.

Real Estate Law 10110110 3 Credits

This course provides students with knowledge of the substantive law of real property to enable the student to identify rights and responsibilities involved with real property ownership. In addition, the students learn how to draft basic legal documents involving real estate transfers and transactions.

**44** | THE ESSENTIAL EXPERIENCE

10116142 **Recruit & Selection Strategies** 3 Credits

Students learn the importance of human capital and its impact on organizational success. The course provides the skills and tools necessary to hire and retain qualified employees. Strategies associated with selecting and developing of employees, including the practice of interviewing techniques will be emphasized.

**Relationship-Based Policing** 10504852 3 Credits

This course provides an analysis of relationship-based policing and builds upon community-based policing philosophy of collaboration and mutual partnership to maintain quality of community life through proactive problem-solving techniques. It examines building trusting relationships by making a commitment to improve the overall well-being of community life.

10480101 3 Credits Renewable Energy Overview

Students investigate the need for renewable energy systems and emerging careers in renewable energy. Students examine the basic design, function, cost and other considerations associated with various "green" energy systems, including solar photovoltaic, solar thermal, wind, geothermal and biomass. Students will also explore the production and use of alternative transportation fuels.

**Research Methods in Criminal Justice** 10504856 2 Credits

This course provides an analysis of the various research (quantitative and qualitative) methodologies along with an assessment of their strengths and limitations on research practices within criminal justice.

**Residential Blueprint Reading** 31410329

In this course students will study various construction systems as they related to their drawings. Roof framing plans, stair construction from a section drawing, window schedules and catalogs, interior and exterior finishes, multifamily dwellings and code requirements for a residential structure will be referenced for related trade information.

31409323 Residential Cabinetmaking 5 Credits

This course introduces students to concepts that include stationary and portable woodworking equipment, operations, and safety. The lumber milling process, joinery used in woodworking, and general shop safety operations will be introduced and applied. These skills will lead into design concepts and construction methods used in residential cabinetmaking. Students will work with manufactured wood products, hardwoods, and hardware and will construct cabinet cases, doors, and drawers. Students will custom build the cabinets for a newly constructed home.

**Residential Construction** 

In this course, students will construct a home on a building site in the City of La Crosse. On site tasks will include foundation prep, load bearing wall and floor system installation, exterior and interior wall construction, roof truss installation and roof finish, stair construction, and cornice construction. Students will apply on site safety techniques and scaffolding installation as part of their training.

**Residential Design Studio** 10304126 3 Credits

A study in the fundamental principles of the interior design process and its application to residential projects. Focus on project concept development and project synthesis using critical thinking with a strong metacognitive reinforcement of learning through sketching, drawing diagrams, and hand drafting techniques. Project kitchen and bath requirements follow NKBA guidelines.

10515112 2 Credits **Respiratory Airway Management** 

Provides a comprehensive exploration of airway management concepts and skills.

Respiratory Clinical 1 10515175 2 Credits

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. This course includes the complete program competency list. At the completion of this clinical, learners must demonstrate competence in a minimum of 5 (required and/or simulated) competencies. The instructor may identify specific competencies to be addressed during this

**Respiratory Clinical 2** 10515178 3 Credits

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. NOTE: Competencies with an R are required; competencies with an S are required, but may be simulated; competencies with an O are optional.

**Respiratory Clinical 3** 10515179 3 Credits

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. NOTE: Competencies with an R are required; competencies with an S are required but may be simulated; competencies with an O are optional.

**Respiratory Clinical 4** 10515182 3 Credits

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. NOTE: Competencies with an R are required; competencies with an S are required by may be simulated; competencies with an O are optional.

**Respiratory Clinical 5** 10515183 3 Credits

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. NOTE: Competencies with an R are required; competencies with an S are required but may be simulated; competencies with an O are optional.

10515176 **Respiratory Disease** 3 Credits

Exploration of signs, symptoms, causes, progression, and treatment of obstructive, restrictive and infectious diseases or disorders of the body that affect the respiratory system.

**Respiratory Life Support** 10515113 3 Credits

Focuses on management of adult ventilatory support.

Respiratory Neo/Peds Care 10515180 2 Credits

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.

Respiratory Pharmacology 10515173 3 Credits

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.

10515111 **Respiratory Survey** 

Examines the role of the Respiratory Therapist within the healthcare community. Reviews the ethical, legal, and regulatory principles that guide practice across diverse populations. Introductory patient assessment and critical thinking processes used in the development of respiratory care plans are explored.

Respiratory Therapeutics 1 10515171 3 Credits

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.

3 Credits **Respiratory Therapeutics 2** 10515172

Introduces therapeutic procedures including arterial puncture, bronchial hygiene, lung expansion therapy, and pulmonary rehabilitation.

Respiratory/Cardiac Physiology 10515174 3 Credits

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.

3 Credits **Respiratory/Cardio Diagnostics** 10515181

Advanced invasive and noninvasive diagnostic cardiopulmonary procedures including pulmonary function, hemodynamics and rescue medicine.

**Retail Design Studio** 10304128 3 Credits

Building on the skills gained from Residential Design Studio, students will incorporate store design and merchandising tactics on a range of retail projects.

10620165 2 Credits Robotic Maintenance

This course reinforces prior knowledge from previous robotics classes. An emphasis will be placed on Robot I/O, external I/O, and integrating the controller with other automation devices.

**Robotic Welding Operation** 10442110 2 Credits

Students will learn basic skills necessary to operate a robotic welder. This course touches upon safety, the fundamentals of a teach pendant and arc tool programming language, controls, positioning, commands, set-up, and recovery will be addressed. Students will be able to perform basic movements and perform simple welds upon completion and identify project applications.

**Robotics Applications** 10664105

This course reinforces prior knowledge from previous robotics classes. An emphasis will be placed on Robot I/O, external I/O, and integrating the controller with other automation devices.

10664103 Safeguarding and Safety Circuits 2 Credits

In this course, safeguarding principles to keep personnel safe will be examined including the use of guards, barriers, safety devices, and/or safe working conditions. Safety levels of machine safeguarding devices will be explored. Investigation of electromechanical devices designed expressly for the purpose of monitoring the integrity of a machine's safety system will be included. Additionally, safety switches, relays, and circuits are examined.

Safety in the Workplace 10196136 3 Credits

An introduction to safety and loss prevention in the workplace with an emphasis on the supervisor's responsibility for maintaining a safe, productive environment. Students will study safety concepts, hazard controls, developing safety and health programs, and federal and state mandated regulations.

3 Credits Sales Team Management 10104165

This course will focus on the responsibility and functions of a sales manager including: an evaluation of various sales organizational structures, sales forecasting, budgeting, ethics in sales, and an overview of best practices in recruiting, selecting, testing and training salespeople. Special attention will be paid to retaining, compensating, and motivating sales teams.

30504511 Scenario Assessment 1 Credits

Through on-campus lab, students will be evaluated on the skills learned and applied in Phases I-II-III: Final Scenarios

**Scripting and Automation** 10154107 3 Credits

This course provides the fundamental skills and knowledge required to effectively write scripts and automate processes for the Microsoft Windows operating system. The student will learn conventional command/terminal shell technologies and the pros/cons of graphic and command shells. Automation concepts will include data types, standard input/output and redirection, conditional constructs, loop constructs, and error handling. Scripting environments covered will include the Windows command shell and Windows PowerShell.

**Security Administration** 10504842 3 Credits

This course provides an examination of security organization and administration. It emphasizes managerial theory, motivation, and provides guidance on the development of a competent and appropriate supervisory, managerial, and administrative style for the leadership of security personnel.

**Selling Principles** 10104119 3 Credits

Selling is a part of a firm's marketing activity and is a professional business process. Topics included are identification of sales prospects, determination of client needs, after-sales customer support, legal and ethical obligations of sales professionals, development of oral and written communications for selling, analysis of organizational structure, and making a sales presentation.

**Sensitive Crimes** 

Through classroom lecture, and on-campus lab and WI Department of Justice 720 Academy integration exercises, students will learn and apply skills addressed in the following Department of Justice 720 Academy curriculum framework Phase III topics: Domestics, Juvenile Law, Victims, Sexual Assault, and Child Maltreatment. The DOJ Phase III Written Examination will be administered in this course.

**SEO and Marketing Analytics** 10104174 3 Credits

Is your online marketing working? How can you get a return on our investment? You will learn about marketing analytics software, how it works, how to set goals and then measure the effectiveness of the web tools in meeting those goals. You will learn how to interpret the analytics and adjust your online tools to better meet your goals.

**Siemens Control Systems** 10620114 2 Credits

This class introduces the components and operations of Siemens PLCs and describes the functions and programming languages on these PLCs. It covers the communication between hardware components and discusses basic guidelines for PLC installation. The integration of a Siemens touch screen will be included. An overview of the STEP 7 Basic (TIA Portal) software used to configure and program Siemens devices will be investigated.

Site Layout and Concrete 31410303 1 Credits

Students will be introduced to measuring and layout procedures and site development using surveying equipment such as digital theodolites, lasers, and total station. Concrete as a building material, foundation walls and footings, flatwork, and below grade foundation preparation will be studied as well.

Sketching & AutoCAD Level 1 10606137 2 Credits

Autodesk AutoCAD is a powerful tool for manufacturing, architecture, and construction. Learn how to effectively leverage this diverse software! Topics include navigating the user interface, command bar and ViewCube, managing .dwg files, drawing and modifying objects, drawing with accuracy, reusing content, generating drawings and other output, along with many productivity tips for future engineers of any discipline. Although the focus is on developing technical drawing skills for mechanical engineering, upon completion of this course you will be able to confidently use AutoCAD for architecture, construction, landscaping, manufacturing, engineering, or product design.

Sketching & AutoCAD Level 2 10606147 2 Credits

Learn to be proficient in your use of AutoCAD and recognize the most effective tool for the task. Topics include advanced drawing views, tolerancing, threads & fasteners, assembly drawings, and other ways to be a more effective AutoCAD user.

**Social Media Strategies** 10104109 3 Credits

Explore current and up-and-coming online platforms, applications, and tracking methods for social media and determine how they are revolutionizing the marketing landscape. You will set up social media accounts, learn basic terminology, and incorporate best practices into marketing strategies. You will learn which platforms fit best with an organization's strategic goals, how to integrate content across them, interpret the analytics, and tailor them to maximize results.

20809202

This course examines the major issues confronting society: economic and political change, nationalism, racial and ethnic relations, sexism, socioeconomic class, crime and justice, health and education, and family life. It discusses causes, effects, possible solutions and future trends. This course requires student participation in reading, writing and discussion.

**Software Appl for Business** 10154102 3 Credits

Introduces the student to Office 365 suite of products. This course includes software application basics and file management strategies to better organize, create, and maintain information to communicate in a business setting. Office 365 applications will be related to solving business problems, formatting business information, and creating business reports that integrates all features of Office 365.

Soil Fertility & Nutrient Management 10006169 2 Credits

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

30090323 Soils Management 3 Credits

Students learn about the physical, chemical, nutrient and biological characteristics of soil. Students will be able to evaluate the effect of fertilizers, herbicide, pesticides and fungicides on soil as well as assess the role of organic matter and microbes in the soil. Instruction is provided on how to take and understand soil testing procedures and reports. Students will receive instruction to implement fertilizer recommendations using cost versus benefit analysis. All classes in the Farm Business and Production management program include instruction on financial analysis and management of the farming operation.

10606184 Solidworks 2 Credits

Introduction to Solid Works 3D parametric modeling software. Create 3D parts and use these 3D parts to create 3D assemblies and 2D drawings. Students will learn to preserve design intent using dimension-driven systems and geometric relationships.

Spanish 1 20802211

For students beginning the study of Spanish. Emphasizes development of basic communicative skills through practice in listening, speaking, reading and writing. Stresses vocabulary and grammar to enhance students' ability to speak and write in Spanish. Study of customs and values provides an increased awareness of Spanish speaking cultures. On completion students are expected to participate in uncomplicated conversations on everyday topics.

Spanish 2 20802212 4 Credits

Bienvenidos! Welcome! This communicative language class is designed for students who have completed one semester of college Spanish. Emphasis is placed on the continued development of more complex communicative skills through practice in listening, speaking, reading and writing. By the end of Spanish 2, you will acquire the listening, speaking, reading and writing skills necessary to handle simple everyday survival tasks in Spanish. You will also have a better understanding of and appreciation for people and cultures other than your own and an increased awareness of Spanish-speaking countries in the world.

**Special Patient Populations** 10531921 3 Credits

This course teaches the paramedic student to integrate assessment findings with principles of anatomy, physiology, epidemiology, and pathophysiology to formulate a field impression and implement a comprehensive treatment plan for patients with special needs. Gynecological emergencies, along with special considerations in trauma are also included within this course.

Speech 10801198 3 Credits

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.

Statics/Strength Of Materials 10606124 4 Credits

Statics: The study and analysis of forces and loading conditions applied to structures and mechanical devices. Strength of Materials: An introduction to methods used to determine internal stresses present in machine parts when subjected to various loading conditions. Topics include: simple stresses, centroids, moments of inertia, torsion, shear and bending stresses.

**Steering and Suspensions** 32404322 3 Credits

Develops the skills and knowledge needed to test, diagnose, repair, replace and adjust steering and suspension systems. Includes theory of wheel alignment with practical experience on computerized alignment equipment.

10614135 Struct Analysis 3 Credits

This course is designed to introduce the principles of structural mechanics to architectural students at a technical level. Students will develop an understanding of the structural analysis process, materials and systems. Basic calculations will be performed for beam analysis, external and internal forces on beams and beam and column design.

Struct Draft Comm 10614134 3 Credits

This course guides intermediate architectural students through the interpretation process necessary to communicate the structural design of commercial buildings. Concrete foundation systems and components combined with steel and masonry structures will be studied. Students will employ engineering sketches, industry manuals, and AutoCAD along with the advanced steel detailing software SDS/2 as aids in preparing drawings and designing connections.

Struct Draft Res 10614124 3 Credits

This course enables beginning architectural students to understand load distribution and to coordinate structural building components within a residential structure. Foundation systems, framing design with dimensional lumber and engineered wood products, along with applicable codes will be examined. Load tables and member sizing software will be utilized to specify framing for use in computer generated structural plans and details of a residence.

20890206 2 Credits **Study Abroad Experience** 

This course includes pre-travel preparation, international travel, and post-travel reflection activities designed to strengthen cultural competence and global awareness.

**Substantive Criminal Law** 10504823

This course provides an examination of crimes. Numerous crimes and defenses are analyzed. Utilization and interpretation of criminal statutes is explored to develop requisite entry level practitioner understanding and abilities.

10196191 3 Credits Supervision

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.

# Support Students w/ Special Health Needs

10522110

3 Credits

This course prepares the Instructional Assistant student to work with students in the school setting who have special healthcare needs. Management and care of chronic or acute physical health conditions, as well as students with mental health issues will be examined. Adaptive equipment and assistive technology will be introduced and explored. Laws, policies and the roles of school personnel and health care professionals will be outlined. The role of the Instructional Assistant in the emergency management of students with various health conditions will be explored.

10512131 Surgical Interventions 1 4 Credits

Provides the foundational knowledge of surgical core and specialty procedures. Examines the pathophysiology, diagnostic interventions, health sciences, and surgical techniques for a variety of procedures.

Surgical Interventions II 10512142 4 Credits

Expands knowledge of core and specialty procedures by incorporating pathophysiology, diagnostic interventions, health sciences, and surgical techniques.

**Surgical Pharmacology** 10512129 2 Credits

Basic study of drug classifications, care, and handling of drugs and solutions, application of mathematical principles in dosage calculations, terminology related to pharmacology, anesthesia, and drugs used in surgery.

**Surgical Skills Application** 10512130 2 Credits

Provides a transition from the academic to the clinical setting. Learners integrate the surgical technologist skills as they apply to various surgical procedures.

10512126 Surgical Tech Fundamentals 1 4 Credits

Focuses on preparing the patient and operating room for surgery. Principles of sterile technique are emphasized as the student moves into the scrub role. Lab practice is included.

10512128 Surgical Tech Fundamentals 2 4 Credits

Focuses on enhancing surgical technology skills while functioning as a sterile team member. Lab and or clinical practice is included.

Surgical Technology Clinical 1 10512132 3 Credits

Apply basic surgical theories, principles, and procedural techniques in the operating room. Students begin to function as team members under the guidance of the instructor and authorized clinical personnel.

Surgical Technology Clinical 2 10512133 3 Credits

Further experience in a clinical setting allows the student to continue to improve technical skills while accepting more responsibilities during surgical procedures.

Surgical Technology Clinical 3 10512135 3 Credits

Further experience in a clinical setting allows the student to continue to improve technical skills while accepting more responsibilities during surgical procedures.

Surgical Technology Clinical 4 10512136 3 Credits

During this clinical course the student will function relatively independently. Serves as a transition from a student perspective to an employee by utilizing advanced skills for an entry level Surgical Technologist.

**Survey of Criminal Justice** 10504819 3 Credits

This course provides an overview or survey of the criminal justice system. The structure and function of the police, courts, and corrections will be explained to lay the foundation for further course work.

Tag Based HMI/SCADA Systems 10664101 2 Credits

This tag-based software course explains how to create and configure a modern manufacturing execution software application. This course provides fundamental knowledge of the Wonderware visualization module and the step necessary to develop an HMI system. Students will explore setup, layout, best practice concepts, features, and functions of the software.

Team Building & Problem Slvng 10196189 3 Credits

The learner applies the skills and tools necessary to facilitate problem solving in a team environment. Each learner will demonstrate the application of the benefits and challenges of team work, necessary roles in a team, stages of team development, different approaches to problem solving, consensus, a systemic process of problem definition, data acquisition, analysis, developing alternative solutions, solution implementation, and evaluation.

10801197 **Technical Reporting** 3 Credits

Teaches the preparation and presentation of 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.

Technical Rescue 10503101 2 Credits

Exposes the student to the mental and physical rigors of team-based technical rescue. Students will learn and implement common techniques and demonstrate problem solving in area such as Rope Rescue, Trench Collapse Rescue, Confined Space Rescue, Vehicle/Machine Rescue and Structural Collapse Rescue.

**Technology in Criminal Justice** 10504857 1 Credits

This course provides a survey of technological tools used in criminal justice. It examines the use of communication systems, information technology systems, surveillance and imaging technologies, and the forensic applications of software and hardware systems.

The World in the Twentieth Century 20803225 3 Credits

Focuses on the emergence of a global society in the Twentieth Century through a chronological examination of the events and trends that created a more closely connected world, resulting in a "global society" by the end of the century. The course approaches the history of this century through emphasis on themes of particular significance to the creation of global society. These themes include globalization, the growth of mass culture, technology, ideology/religion, and the varied responses of different cultures to the ideas and events of the century.

**Total Fitness** 20807202 1 Credits

This course is designed to allow students to work out on their own. Students will participate in their choice of weight training and/or cardiovascular activities to improve strength and cardiovascular endurance.

NOTE: All students are REQUIRED to first attend an orientation session which will introduce and explain how the course works, the syllabus, facility hours and time requirements.

**Training and Development** 10154158 3 Credits

Students will examine and utilize the steps involved in the training process. Emphasis will be spent on the Brain-based Learning process. Students will plan, prepare and deliver training sessions along with developing training manuals and user documentation. Under instructor supervision, students will also complete a training field study.

10503105 3 Credits

An analysis of current and emerging Fire Service Trends along with various topics relevant to professional firefighters.

20806223

**Turf Management** 10001110 3 Credits

Selection, cultural care and environmental management of turf in residential and commercial settings will be taught. Students will be trained on current techniques, materials and equipment used in the turf industry. A focus on nutrition, water, and pest management will be a training outcome of this class. Development of maintenance schedules, work schedule and professional ethics will be discussed.

## University Physics 1 - Calculus Based

5 Credits

This is the first course in a two-semester sequence using algebra, trigonometry, and calculus to introduce basic concepts of physics. Topics covered include onedimensional and two-dimensional kinematics, vectors, one-dimensional and two-dimensional dynamics, rotational kinematics and dynamics, momentum, and temperature and heat. Additional topics may include gravitation, thermodynamics, simple harmonic motion, and wave motion as time allows.

University Physics 2 - Calculus Based

This is the second course in a two-semester sequence using algebra, trigonometry, and calculus to introduce basic concepts of physics. Topics covered include electrostatics, electricity and magnetism, elementary electrical circuits, electromagnetic waves and the nature of light, and optics. Additional topics may include sound, fluid mechanics, Maxwell's equations, basic alternating current circuits, or selected topics in modern physics as time allows.

10513114 2 Credits Urinalysis

This course prepares the student to perform a complete urinalysis which includes physical, chemical and microscopic analysis. Student will explore renal physiology and correlate urinalysis results with clinical conditions.

3 Credits 10504825

This course provides an analysis of criminal victimization in the United States via an overview of specific crimes types, theories of victimization/offenders, the impact on crime victims, and the available services needed to assist victims.

3 Credits Virtualization and Cloud Security 10150146

Students are introduced to virtualization and storage management concepts using VMware server virtualization products. This hands-on training course explores installation, configuration, and management of VMware® vSphere™, which consists of VMware ESXi/ESX™ and VMware vCenter™ Server.

Visual Communication I 10304122 2 Credits

Students learn to utilize physical and digital communication models that employ iconography, illustration, supporting text, photos, sketches, finalized drawings, and data in an effort to creatively communicate design solutions.

10304132 2 Credits Visual Communication II

A continuation of exploring methods of communicating design solutions including creative use of digital imaging technology, as well as, layout and composition software.

10201123 3 Credits Web Design 1

In this course students will learn to build web sites using HTML (hypertext markup language) code and CSS (Cascading Style Sheets). All coding will be done in a text editor. This course will be taught on Macintosh computers. Prior Macintosh experience will be helpful.

Web Design 2 10201132 3 Credits

In this course students will build upon the knowledge gained in Web Design 1 and integrate more advanced tools and techniques using industry standard web development applications and tools. Macintosh platform.

Web Design 3

In this course students will continue to develop more advanced web design knowledge and begin working with Content Management Systems. Mixed media for the web will also be explored. Macintosh platform.

Web Development with ASP.Net 10152187 3 Credits

This programming course teaches the student how to create dynamic web content and covers advanced object oriented programming principles. The course utilizes SQL and continues building on HTML and .NET skills. Through the use of a database (Microsoft SQL Server), a web programming language (ASP.Net) and a web server, the student will learn how to create database driven web sites.

**Web Programming** 10152144

This is an entry level programming course with a strong emphasis on developing websites. No prior programming experience is required. The course introduces students to HTML, CSS, and JavaScript, and covers fundamental programming concepts.

Welding - Heavy Equipment Fabrication

32442327

2 Credits

This course is designed to provide basic welding training in the area of minor repairs and fabrication for diesel and heavy equipment technicians.

Welding - TIG 3 10442116 2 Credits

Instruction in tungsten inert gas welding of aluminum sheet and plate in all positions.

Welding Fabrication 1 31442302 2 Credits

A course of instruction to include the use of rulers/scales, layout and hand tools, power tools and large shop equipment, welding joint designs, and assembly projects by various welding processes.

Welding Fabrication 2 31442312 2 Credits

A course of instruction to include introducing the CNC cutting table and press brake. It continues advancing techniques, tools, and equipment from Fabrication 1. Introduces weldment design considerations. Assemble projects by various welding processes with the use of blueprint symbols.

Welding Fabrication 3 31442322 2 Credits

Introduces factors for working with non-steel materials. Primarily a capstone course allowing students to fabricate their own projects assembled using welding procedures the student develops.

**Welding for Maintenance** 10442109 3 Credits

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.

Welding-Blueprint Reading 1 31442308 1 Credits

This course is designed to develop the student's skill in reading working drawings of weldments.

Welding-Oxy Fuel Metals Join 1 Credits 31442301

Introduction of gas welding and brazing techniques used to join metal pieces together.

Welding-SMAW 1 31442303 2 Credits

The study of welding techniques and applications for the flat and horizontal positions, to include electrode selection, fundamental joints, welding positions, and basic electricity for arc welding.

Welding-SMAW 2 31442313 2 Credits

The study of welding techniques and applications for the vertical and overhead positions, to include welding metallurgy, metal properties, identification, effects of heat, pre and post weld heat treatments.

31442315 Welding-TIG 1 2 Credits

The study of welding techniques on mild steel and applications of the gas-tungsten arc welding process which will also include set up, troubleshooting and tungsten selection on ferrous materials (steel).

Welding-TIG 2 31442325 2 Credits

Instruction in tungsten inert gas welding of ferrous and non ferrous metals in the flat, vertical and overhead positions as well as on pipe. ASME and AWS requirements are used as guidelines.

Welding-Transportation 32442317 1 Credits

This course will cover welding safety, welding terminology, basic Shielded Metal Arc Welding (SMAW), manual oxy-fuel cutting, and plasma cutting as they relate to the transportation fields.

**Wellness Today** 20807266 3 Credits

An introduction to wellness that provides guidelines for preventing disease and enhancing health and physical fitness. Participants will assess their level of wellness and fitness and develop a prescription for behavior modification toward a healthier lifestyle. Learners will participate in exercise labs and discuss contemporary health issues in lecture as a conceptual basis for intelligent, personal healthy decisions and mode of behavior.

Windows PowerShell Scripting 10154110 3 Credits

This course will introduce students to PowerShell and how Microsoft utilizes the language for administration and management of Windows servers and clients. PowerShell is built on the .NET runtime language which leverages functional cmdlets to perform both simple and complex tasks. Students will learn to access file systems, data stores, the registry—and employ specific cmdlets to install, manage and troubleshoot Windows features and roles.

Windows Server Admin 1 10150192 3 Credits

Provides hands-on experience in the installation and management of microcomputer networks. Topics covered include installing the network operating system, setting up workstations, creating and managing user accounts, network printing, network security, and backup.

Windows Server Admin 2 10150194 3 Credits

Teaches students advanced LAN administration skills such as tuning the network for better performance and monitoring and optimizing the server. The student learns how to manage and customize client workstations. Other topics covered will include managing the NDS tree, working with domains, setting up remote access, installing TCP/IP, and integrating networks.

Wirefeed Welding 1 31442306 2 Credits

The study of welding techniques and applications of the GMAW and FCAW processes in the flat and horizontal positions on ferrous materials (steel).

Wirefeed Welding 2 31442316 2 Credits

The study of welding techniques and applications of the GMAW and FCAW processes using the short circuiting in the vertical and overhead positions on ferrous materials.

Wirefeed Welding 3 31442326 2 Credits

Advanced GMAW and FCAW practices on steel, stainless steel, and Aluminum.

**Woody Plant Identification** 10001158 3 Credits

This class presents a systematic approach to the identification and use of woody landscape plants including; deciduous and conifer trees and shrubs, vines, and groundcovers. The plant's ornamental characteristics, cultural needs, and their proper placement in the landscape are presented. Plant walks are taken throughout the community to present the plants in a landscape setting. Students are required to learn the common and botanical names (Latin names) of all the plants presented.