



Project EXCEL Dual Credit Course Listing with Course Descriptions
2019-2020 Academic Year
Revised 7.10.19

ACCT 100 – Basic College Accounting – 3 credit hours

A course in the fundamentals of accounting practices. Emphasis on journalizing, posting, preparing financial statements, reconciling bank statements, and understanding elements of payroll. The course is specifically designed for students with little or no previous accounting or bookkeeping experience and who are enrolled in an occupational program requiring only one accounting course. 3 lecture hours.

AGBS 101 – Introduction to Agribusiness Management – 3 credit hours

A study of the agriculture industries that are of service to agribusiness. Basic processing of major agricultural products, storage, shipping, grading and merchandising from production to the consumer is examined. 3 lecture hours.

ARCH 102 – Architectural Drafting & Print Reading – 3 credit hours

An introductory course covering creation and interpretation of construction documents. Methods of geometric construction, three-dimensional drawing techniques, and sketching will be presented as well as elementary aspects of residential design and site work. Areas of emphasis will include print reading and drawing. 2 lecture hours, 4 lab hours.

ARCH 141 – Introduction to Architectural CAD – 3 credit hours

This course is an introduction to computer aided drafting using AutoCAD software. This course is primarily designed for Architecture, Surveying, and Interior Design majors but open to all students interested in learning about the basics of AutoCAD. This course will focus on Basic Architectural AutoCAD practices. 2 lecture hours, 3 lab hours.

ARCH 221 – Advanced Architectural Software – 3 credit hours

This course introduces students to various Architectural software packages and applications, which could include Autodesk VIS and Autodesk Revit. 2 lecture hours, 4 lab hours.

AUTO 105 – Transportation Fundamentals – 2 credit hours

Course coverage includes instruction in personal and environmental safety practices as related to OSHA and other agencies that effect individuals working in the ground transportation technology areas. Additional instruction is given in the course on measurement principles and automotive fasteners. 2 lecture hours.

AUTO 110 – Transportation Electrical – 3 credit hours

This course addresses the fundamental theories of electricity and electronics as applied to ground transportation technology areas. Diagnosis and repair of basic battery, starting, charging, lighting, accessories, and wiring systems will be covered. Utilization of analog and digital meters, wiring diagrams, and other diagnostic tools will be stressed. 3 lecture hours. *Corequisite: AUTO 110L*

AUTO 110L – Transportation Electrical Lab – 1 credit hour

This course is a hands on course that introduces the student to automotive electrical theory, batteries, charging systems, starting systems, wiring repairs, lighting systems, and accessories. 3 laboratory hours. *Corequisite: AUTO 110*

BCST 102 – Introduction to Audio-Video Production – 3 credit hours

This course provides an introduction to the fundamentals of digital production techniques for audio, video, studio, and field production. 3 class hours.

BCST 120 – Audio Production – 3 credit hours

This course provides an in-depth study on audio production techniques for radio, television, and digital technologies. Students will learn skills necessary for audio production and on-air work used in radio and other digital formats. 3 class hours.

Prerequisite: BCST 102 with grade of C or better

BCST 140 – Video Production I (Studio Production) – 3 credit hours

A study of basic video production principles. Experience will be gained in the development of the process message, directing, camera, audio, video switcher and character generator operations, and as talent. 3 class hours.

Prerequisite: BCST 102 with grade of C or better

BCST 206 – Video Production II (Field Production) – 3 credit hours

A study of single camera video production with emphasis on concept and script development, camera technology, shot composition, lighting, non-linear editing, and special effects. 3 class hours.

Prerequisite: BCST 102 with grade of C or better

BIOL 100 – Biology: Connections and Impacts – 3 credit hours

Hands-on, inquiry methods will be used to investigate characteristics, processes, and phenomena common to humans and their environment; writing and testing hypotheses, analyzing results, drawing conclusions, and communicating results clearly to others will be emphasized. The importance and role of ethics in science will also be discussed. *TransferIN course.* 3 lecture hours. *Corequisite: BIOL 100L*

Required Placement Scores:

READING: ACT – 17; PSAT – 21; SAT (2-digit score) – 21 or (EBRW combined score) – 510; ACCU (Next Gen) – 231; ACCU (VU/Other) – 59

WRITING: ACT – 15; PSAT – 22; SAT (2-digit score) – 22 or (EBRW combined score) – 510; ACCU (Next Gen) – 231; ACCU (VU/Other) – 68

MATH: ACT – 22; SAT (3-digit score) – 560; ACCU (Next Gen) – 245; ACCU (VU/Other) - 46

BIOL 100L – Biology: Connections and Impacts Lab – 1 credit hour

Explores the principals of BIOL 100. Laboratories emphasize critical thinking and scientific process. *TransferIN course.* 2 lab hours. *Corequisite: BIOL 100*

Required Placement Scores: Same as BIOL 100

BIOL 101 – Plant and Animal Biology – 3 credit hours

Plant and animal interrelationships involving identification and classification. Significance of plants and animals to environment and ultimately to man. *TransferIN course.* 3 lecture hours. *Corequisite: BIOL 101L*

Required Placement Scores:

READING: ACT – 17; PSAT – 21; SAT (2-digit score) – 21 or (EBRW combined score) – 510; ACCU (Next Gen) – 231; ACCU (VU/Other) – 59

WRITING: ACT – 15; PSAT – 22; SAT (2-digit score) – 22 or (EBRW combined score) – 510; ACCU (Next Gen) – 231; ACCU (VU/Other) – 68

MATH: ACT – 22; SAT (3-digit score) – 560; ACCU (Next Gen) – 245; ACCU (VU/Other) - 46

BIOL 101L – Plant and Animal Biology Lab – 1 credit hour

Explores the principals of BIOL 101. Laboratories emphasize critical thinking and scientific process. *TransferIN course.* 2 lab hours. *Corequisite: BIOL 101*

Required Placement Scores: Same as BIOL 101

BIOL 111 – Anatomy and Physiology I – 3 credit hours

Introduction to human body structure and function. Cells, tissues, integument, skeletal system, muscular system, nervous system, general and special senses. 3 lecture hours. *Corequisite BIOL 111L*

Required Placement Scores:

READING: ACT – 21; PSAT – 23; SAT (2-digit score) – 23 or (EBRW combined score) – 510; ACCU (Next Gen) – 231; ACCU (VU/Other) – 75

WRITING: ACT – 18; PSAT – 25; SAT (2-digit score) – 25 or (EBRW combined score) – 510; ACCU (Next Gen) – 231; ACCU (VU/Other) – 80

MATH: ACT – 22; SAT (3-digit score) – 560; ACCU (Next Gen) – 245; ACCU (VU/Other) – 40

BIOL 111L – Anatomy and Physiology I Lab – 1 credit hour

Examines principles of BIOL 111 through lab exercises, models, slides, animal dissection, and computer simulations. 3 lab hours. *Corequisite BIOL 111*

Required Placement Scores: Same as BIOL 111

BIOL 112 – Anatomy and Physiology II – 3 credit hours

This course covers the following aspects of human anatomy and physiology; cardiovascular system; respiratory system; digestive system; urinary system; endocrine system; male and female reproductive systems; and basic embryology. 3 lecture hours. *Corequisite: BIOL 112L*

Prerequisite: BIOL 111/111L with grade of C or better

BIOL 112L – Anatomy and Physiology II Lab – 1 credit hour

Examines principles of BIOL 112 through lab exercises, models, slides, animal dissection, and computer simulations. 3 lab hours. *Corequisite: BIOL 112*

Prerequisite: BIOL 111/111L with grade of C or better

BODY 100 – Non-Structural Analysis and Damage Repair – 3 credit hours

Instruction presents an overview of safety and personal protective equipment, materials, measuring, welding, and information resources applicable to collision repair. Students will investigate steel and aluminum dent repair along with various types of plastic body fillers. SMC, fiberglass, and plastic body panel repair will also be explored. Substrate preparation including sanding, two-part epoxy, shrinking, and primers/sealers will be discussed. 3 lecture hours.

Corequisite: BODY 100L

BODY 100L – Non-Structural Analysis and Damage Repair Lab – 4 credit hours

Students will perform dent repair using hammer/dolly, stud gun, and heat shrinking techniques. Surface preparation using various plastic body fillers along with a variety of sanding techniques/tools will be stressed. Students will demonstrate bolt on panel removal, replacement, and alignment. Plastic panel identification and repair will also be explored. Spray gun usage/setup will be discussed as it applies to primer application. 12 lab hours. *Corequisite: BODY 100*

BODY 150 – Painting and Refinishing – 3 credit hours

Instruction presents spraying/mixing techniques in various painting processes including: primers, sealers, acrylic enamels, urethane enamels, epoxy, base coat/clear coat, and water-borne products. Students will explore spray gun operation (conventional and HVLP), paint matching, blending, paint defects, and personal protective equipment related to paint application processes. 3 lecture hours. *Corequisite: BODY 150L*

BODY 150L – Painting and Refinishing Lab – 4 credit hours

Students will perform hands-on activities that include: surface preparation, masking techniques, spray gun techniques (conventional and HVLP), paint mixing, color matching/blending, color identification, buffing, de-nibbing and final detailing. Instruction will also include paint defect prevention/repair in single stage, base/clear, tri-coat, and water-borne paint systems. 12 lab hours. *Corequisite: BODY 150*

CHEM 100 – Elementary Chemistry – 3 credit hours

An introduction to the basics of inorganic chemistry with a study of the chemical and physical properties, and changes of matter including measurement, nomenclature, reactions, and stoichiometry, including a discussion of nuclear chemistry.

Transfer/IN course. 3 lecture hours. **Corequisite:** CHEM 100L

Required Placement Scores:

READING: ACT – 17; PSAT – 21; SAT (2-digit score) – 21 or (EBRW combined score) – 510; ACCU (Next Gen) – 231; ACCU (VU/Other) – 59

WRITING: ACT – 15; PSAT – 22; SAT (2-digit score) – 22 or (EBRW combined score) – 510; ACCU (Next Gen) – 231; ACCU (VU/Other) – 68

MATH: ACCU (Next Gen-QAS) – 250; ACCU (VU/Other - EA) – 53

CHEM 100L – Elementary Chemistry Lab – 1 credit hour

Experiments to illustrate concepts of CHEM 100. **Transfer/IN course.** 3 lab hours. **Corequisite:** CHEM 100

Required Placement Scores: Same as CHEM 100

CIMT 100 – Electronics for Automation – 3 credit hours

An introductory course in the theory, characteristics, and application of basic electronic components used in AC, DC, and digital electronic circuits. Topics will include circuit analysis, measurement, and troubleshooting. 3 lecture hours.

Corequisite: CIMT 100L

CIMT 100L – Electronics for Automation Lab – 3 credit hours

This course emphasizes the building, analyzing, and troubleshooting of AC, DC, and Digital electronic circuits. 9 lab hours.

Corequisite: CIMT 100

CIMT 125 – Introduction to Robotics and Automation – 2 credit hours

This course covers an introduction to Computer Integrated Manufacturing in industry. Programming concepts are introduced using Visual Basic. Emphasis is placed on robotic workcell basics; including programming a six axis articulated robot. Various topics cover robotic classification, applications, socioeconomic impact, workcell design, robot programming, sensor and actuator interfacing, plus a project centered around a CIM Workcell. 2 lecture hours. **Corequisite:** CIMT 125L

Required Placement Scores:

READING: ACT – 17; PSAT – 21; SAT (2-digit score) – 21 or (EBRW combined score) – 510; ACCU (Next Gen) – 231; ACCU (VU/Other) – 59

WRITING: ACT – 15; PSAT – 22; SAT (2-digit score) – 22 or (EBRW combined score) – 510; ACCU (Next Gen) – 231; ACCU (VU/Other) – 68

CIMT 125L – Introduction to Robotics and Automation Lab – 1 credit hour

This course emphasizes robot programming, interfacing to I/O devices, and Visual BASIC programming. 6 lab hours.

Corequisite: CIMT 125

Required Placement Scores: Same as CIMT 125

CMET 140 – Computer Maintenance I – 3 credit hours

An introduction to computer maintenance. This course will focus on safety, computer hardware devices, operating systems, and customer service. 2 lecture hours, 4 lab hours.

CMET 185 – Computer Maintenance II – 2 credit hours

This course builds on topics from CMET 140 adding basic networking and peripheral devices. 1 lecture hours, 4 lab hours.

Prerequisite: CMET 140 with grade of C or better

CMET 195 – CompTIA A+ Certification – 1 credit hours

This course will help students prepare for CompTIA A+ certification. Students enrolling in this course will be required to take 2 CompTIA A+ certification exams. 1 lecture hour. **Corequisite:** CMET 185

Prerequisite: CMET 140 with grade of C or better

CMET 215 - Computer Maintenance III – 2 credit hours

This course will cover networking for Electronics Majors. The course will cover network hardware, the OSI model, network protocols, network operating systems, and cabling. 1 lecture hours, 4 lab hours.

CMET 220 - Computer Maintenance III – 1 credit hour

This course will help students prepare for CompTIA Network+ certification. Students enrolling in this course will be required to take the CompTIA Network+ certification exam. 1 lecture hour. *Corequisite: CMET 215*

CNST 100 – Construction Seminar – 1 credit hour

A course designed to expose students to recent trends in the residential construction industry. Information is presented concerning materials, occupations and professional organizations within the industry. Guest speakers provide such information when available. 1 hour lecture.

CNST 120 – Construction Safety – 2 credit hours

A course that focuses on safety practices to be followed during residential construction. Emphasis placed on the Occupational Safety and Health Administration Safety and Health Standards for the construction industry. 2 lecture hours.

Required Placement Scores:

READING: ACT – 17; PSAT – 21; SAT (2-digit score) – 21 or (EBRW combined score) – 510; ACCU (Next Gen) – 231; ACCU (VU/Other) – 59

WRITING: ACT – 15; PSAT – 22; SAT (2-digit score) – 22 or (EBRW combined score) – 510; ACCU (Next Gen) – 231; ACCU (VU/Other) – 68

CNST 180 – Concrete and Masonry – 2 credit hours

Students plan foundation, footings, walks, and driveways. They are instructed on the types of bonds and materials used to construct walls. Composition of the materials is also covered. 2 lecture hours. *Corequisite: CNST 180L*

CNST 180L – Concrete and Masonry Lab – 1 credit hour

This course involves hands-on activities that are directly related to CNST 180. These activities include: Concrete flat work placement/finishing and forming, laying concrete block in varying pattern bonds, and laying brick in varying pattern bonds. 2 lab hours. *Corequisite: CNST 180*

CNST 261 – Indiana Residential Code for One & Two-Family Dwellings – 3 credit hours

A course devoted to the understanding and interpretation of the Indiana Residential Code for One & Two-Family Dwellings. Instruction will be given in the following areas, but not limited to, administrative requirements, definitions, building planning, foundations, floors, wall construction, wall coverage, roof and ceiling construction, and roof assemblies. 3 lecture hours.

Required Placement Scores:

READING: ACT – 17; PSAT – 21; SAT (2-digit score) – 21 or (EBRW combined score) – 510; ACCU (Next Gen) – 231; ACCU (VU/Other) – 59

WRITING: ACT – 15; PSAT – 22; SAT (2-digit score) – 22 or (EBRW combined score) – 510; ACCU (Next Gen) – 231; ACCU (VU/Other) – 68

COMM 143 – Speech – 3 credit hours

Introduces fundamental concepts and skills for effective public speaking including audience analysis, outlining, research, delivery, critical listening and evaluation, and the use of visual aids/technology. *TransferIN course*. 3 class hours.

Required Placement Scores:

READING: ACT – 17; PSAT – 21; SAT (2-digit score) – 21 or (EBRW combined score) – 510; ACCU (Next Gen) – 231; ACCU (VU/Other) – 59

WRITING: ACT – 15; PSAT – 22; SAT (2-digit score) – 22 or (EBRW combined score) – 510; ACCU (Next Gen) – 231; ACCU (VU/Other) – 68

COMP 107 – Web Page Design – 3 credit hours

This course is designed for students learning the fundamentals of constructing well-designed web pages for the World Wide Web. The proper use of color, spacing, graphics, tables, and forms along with the importance of correct linking and use of copyrighted material will be presented. Course will explore the publishing features of various software. The careful design and planning steps will lead to a thoughtful, readable, and worthwhile individual project. 3 lecture/lab hours.

COMP 110 – Introduction to Computer Concepts – 3 credit hours

This course is designed as a one-semester study for students from all areas of concentration. Students will be exposed to the historic, current, and future roles of information systems as well as the importance of computers in all aspects of our modern society. General hardware and software features of modern systems will be discussed. Current word processing, spreadsheet, database, and presentation software will be covered. *TransferIN course*. 3 lecture/lab hours.

COMP 177 – Introduction to Programming Logic, Design, & Development – 3 credit hours

This course is an introductory programming course that orients students to programming concepts and logic without assuming any previous programming experience. Fundamental concepts of flow charting and pseudocode will be covered. Demonstrations in business problem and solution techniques will be reviewed. 3 class hours.

COMP 185 - Introduction to Databases – 3 credit hours

The course will feature database design and relational design principles based on dependencies and normal forms. This course introduces students to practical and theoretical database concepts. In addition, students learn to model databases using the entity relationship diagram method. The database language concepts while general in nature are demonstrated using an SQL platform. Overall database design and implementation issues will also be presented. 3 lecture/lab hours.

COMP 252 – Introduction to Java Programming – 3 credit hours

This course introduces students to object-oriented programming concepts along with the Java syntax to implement them. At the end of this course, students should be able to write small applications and to program with java on their own. 3 lecture/lab hours.

Prerequisite: COMP 177 with grade of C or better.

COMP 257 – Advanced Web Page Design – 3 credit hours

This course will introduce advanced topics not covered in COMP 107. Students will be introduced to HTML5. The proper use of Cascading Style Sheets (CSS) and javascript will be emphasized. Students will be required to produce a web site containing style sheets, javascript, and HTML5. 3 lecture/lab hours.

Prerequisite: COMP 107 AND COMP 185 with grade of C or better.

COSM 100 – Cosmetology I – 7 credit hours

This course offers an introduction to cosmetology with emphasis on basic practical skills and theories including roller control, quick styling, shampooing, hair coloring, permanent waving, facials, manicuring, business and personal ethics, and bacteriology and sanitation. Successful completion of the course requires at least 375 Cosmetology studio hours. 3 lecture hours, 26 studio hours.

Required Placement Scores:

READING: ACT – 17; PSAT – 21; SAT (2-digit score) – 21 or (EBRW combined score) – 510; ACCU (Next Gen) – 231; ACCU (VU/Other) – 59

WRITING: ACT – 15; PSAT – 22; SAT (2-digit score) – 22 or (EBRW combined score) – 510; ACCU (Next Gen) – 231; ACCU (VU/Other) – 68

COSM 150 – Cosmetology II – 7 credit hours

Development of practical skills introduced in COSM 100 will receive the greatest emphasis in this course. Clinical application and theory in the science of Cosmetology are introduced. Successful completion of the course requires at least 375 Cosmetology studio hours. 3 lecture hours, 26 studio hours.

Prerequisite: COSM 100 with grade of C or better.

COSM 200 – Cosmetology III – 7 credit hours

The emphasis will be toward the development of advanced skills in styling, hair coloring, permanent waving, facials and manicuring. Students will also study anatomy and physiology as it applies to cosmetology. Successful completion requires at least 375 Cosmetology studio hours. 3 lecture hours, 26 studio hours.

Prerequisite: COSM 150 with grade of C or better.

COSM 250 – Cosmetology IV – 7 credit hours

All previously developed skills are applied with emphasis on developing individual techniques. Professionalism, salon management, psychology in relation to cosmetology, and preparation for state board examination are stressed. Successful completion requires at least 375 Cosmetology studio hours. 5 lecture hours, 26 studio hours.

Prerequisite: COSM 200 with grade of C or better

CPNS 101 – LAN Basics and OSI Model – 3 credit hours

This course is designed to prepare students to apply and understand the basics of networking hardware. The course covers the OSI model and industry standards; networking topologies; IP addressing; including subnet masks; and basic network design. This is the first of a four-part series to prepare students for the CISCO Certified Networking Association examination. 1 lecture hour, 6 lab hours.

CPNS 102 – WAN Basics and Routers – 3 credit hours

This course is designed to prepare students to apply and understand the basics of networking hardware. The course covers beginning router configurations, routed and routing protocols, and introduction to LAN switching. This is the second of a four-part series to prepare students for CISCO Certified Networking Associate examination. 1 lecture hours, 6 lab hours.

Prerequisite: CPNS 101 with grade of C or better OR concurrent enrollment in CPNS 101.

CULN 110 – Quantity Food Production – 5 credit hours

This course is an introduction to basic food preparation; use, care and handling of tools and equipment; and the perishable commodity. Preparation and presentation of soups, sauces, vegetables, entrees and salads using a variety of cooking and preparation techniques will be covered. Professionalism in chef presentation and behaviors will be stressed. 7 class hours.

DESL 110 - Diesel Electrical – 3 credit hours

This course addresses the fundamental theories of electricity and electronics as applied to diesel and heavy equipment. Diagnosis and repair of basic battery, starting, charging, lighting, accessories, and wiring systems will be covered. Utilization of analog and digital meters, wiring diagrams, and other diagnostic tools will be stressed. 3 lecture hours. *Corequisite: DESL 110L*

DESL 110L - Diesel Electrical Lab – 1 credit hour

This course is a hands-on course that introduces the student to diesel and heavy equipment electrical theory, batteries, charging systems, starting systems, wiring repairs, lighting systems and accessories. 3 lab hours. *Corequisite: DESL 110*

DESL 130 – Diesel Engine Systems – 3 credit hours

Instruction presents engine operating principles and theories as well as Diesel Fuel Systems and hands-on training related to modern diesel engines. Students will learn inspection, troubleshooting, overhaul and engine replacement procedures. 3 lecture hours. *Corequisite: DESL 130L*

DESL 130L– Diesel Engine Systems Lab – 3 credit hours

This is a hands-on course that introduces the student to the repair of modern diesel engines. The course will include inspection, troubleshooting, overhaul, and engine replacement procedures. 9 lab hours. *Corequisite: DESL 130*

DESN 120 – Computer Illustration – 3 credit hours

This course contains in-depth instruction in the use of Adobe Illustrator to produce vector illustrations, graphics and logos. As a studio course, every aspect of the class will be totally hands-on. Each tool and function will be explained, demonstrated, and used by every member of the class in order to gain understanding and develop skill proficiency. A strong background in this industry standard software program is essential in keeping with today's high technology requirements within the graphic design industry. Areas of concentration include: graphic creation, use of tools, text applications and modifications, and color separations and output. 6 studio hours.

DESN 140 – Computer Imaging – 3 credit hours

This course will offer advanced, in-depth instruction of all aspects of Adobe Photoshop. Assignments encourage students to explore personal creative expression while developing skills and understanding of color correction and enhancement, image manipulation, photo-composite collage, and filter effects. Students will also gain valuable skills in scanning, image resolution adjustment, and file preparation necessary to produce images for print or web applications. This course will provide a solid background of experience with one of the most essential bitmap imaging tools in the graphic design industry today. 6 studio hours.

DESN 155 – Computer Page Layout – 3 credit hours

This course is a comprehensive study of page layout techniques in the digital environment. Current page layout computer applications will be used to create multiple page color documents integrating bitmap images, vector images, and type. Areas that will be explored include: master pages, style sheets, tables, copy fitting, link management, and transparency effects. 6 studio hours.

DRAF 120 – Computers for Technology – 2 credit hours

This course is designed to meet the special computer needs of technology students. Computer software and hardware experiences, as they relate to technology students, will be covered. No prior computer experience is assumed. 2 lecture hours, 2 lab hours.

DRAF 140 – Introduction to CAD – 3 credit hours

Introduction to computer aided drafting using AutoCAD software. This course is primarily designed for drafting and surveying students but open to all students interested in learning the basics of AutoCAD. Topics include: 2D drawing commands, coordinate systems, editing commands, paper and model space, inquiry commands, layers, plotting, text, and basic dimensioning. 2 lecture hours, 2 lab hours.

ECON 201 – Microeconomics – 3 credit hours

A descriptive and analytical study of the market economy, including market structures, pricing, and distribution and determination of wealth and income. **TransferIN course.** 3 lecture hours.

Required Placement Scores:

READING: ACT – 17; PSAT – 21; SAT (2-digit score) – 21 or (EBRW combined score) – 510; ACCU (Next Gen) – 231; ACCU (VU/Other) – 59

WRITING: ACT – 15; PSAT – 22; SAT (2-digit score) – 22 or (EBRW combined score) – 510; ACCU (Next Gen) – 231; ACCU (VU/Other) - 68

ECON 202 – Macroeconomics – 3 credit hours

A descriptive and analytical study of fundamental concepts of our national economy. It includes an analysis of the determination and fluctuations in national income and employment, monetary and fiscal policy, and international trade and finance. Economic analysis of monetary and fiscal policies is stressed. **TransferIN course.** 3 lecture hours.

Required Placement Scores:

READING: ACT – 17; PSAT – 21; SAT (2-digit score) – 21 or (EBRW combined score) – 510; ACCU (Next Gen) – 231; ACCU (VU/Other) – 59

WRITING: ACT – 15; PSAT – 22; SAT (2-digit score) – 22 or (EBRW combined score) – 510; ACCU (Next Gen) – 231; ACCU (VU/Other) – 68

ELEC 105 – Electronic Circuit Analysis I – 3 credit hours

This course will include basic DC/AC circuit analysis using Ohm's Law, use of test equipment, interpretation of circuit diagrams, and basic soldering. Emphasis is on basic concepts and servicing techniques. 2 lecture hours, 4 lab hours.

ELEC 115 – Electronic Circuit Analysis II – 3 credit hours

This course is a continuation of ELEC 105 with further emphasis on DC and AC theory with mathematical analysis. Emphasis is on the function and characteristics of electronic components, circuit configurations, RCL circuits, vector analysis, and resonance. 2 lecture hours, 4 lab hours.

ELEC 130 – Digital Logic I – 3 credit hours

An introduction of fundamental digital electronic devices and circuits, including TTL logic, binary numbers, codes, and combinational logic circuits. 3 lecture hours, 3 lab hours.

ENGL 101 – English Composition I – 3 credit hours

English Composition I is a college level course in critical reading and writing designed to help students develop their ability to think critically, to organize their thoughts, and to express ideas clearly and effectively. The course will focus on the various modes of expository writing, such as process, description, narration, comparison, cause/effect, and analysis, and give significant focus to argumentation. Students will be introduced to documentation. Numerous in-class assignments are required in addition to extended essays written outside of class. **TransferIN course.** 3 class hours.

Required Placement Scores:

READING: ACT – 21; PSAT – 23; SAT (2-digit score) – 23 or (EBRW combined score) – 510; ACCU (Next Gen) – 250; ACCU (VU/Other) – 75

WRITING: ACT – 18; PSAT – 25; SAT (2-digit score) – 25 or (EBRW combined score) – 510; ACCU (Next Gen) – 250; ACCU (VU/Other) – 80

ENGL 102 – English Composition II – 3 credit hours

A continued development of writing skills introduced in ENGL 101. Students learn how to conduct research and how to base their writing on research. In addition to shorter documented papers, all students are required to write a longer investigative paper that must be fully documented according to MLA standards. **TransferIN course.** 3 class hours.

Prerequisite: ENGL 101 with grade of C or better

ENTR 221 – Creating a Small Business – 3 credit hours

Topics will include analyzing your own potential, business feasibility, franchising location, insurance and owner liability, obtaining necessary capital, financial assistance, business plan development and computer simulation. 3 lecture hours.

FIRE 100 – Introduction to the Fire Service – 9 credit hours

Students will complete the academic portion of the Fire Fighter I & II curriculum. Topics such as personal protective equipment, fire fighter safety, water supply, alarm systems, hose lays, applied rescue, and other topics will be covered. Stress will be on the importance of physical fitness in the fire service. The goal is to successfully complete both the written portion of the Fire Engineering program and the practical skills related to Fire Fighter I & II. The course will also include the academic portion of Hazardous Materials Operations. 6 lecture hours, 3 laboratory hours.

FREN 101 – French Level I – 4 credit hours

An introduction to the French language and culture with emphasis on oral skills. Guided communication tasks, vocabulary building, listening comprehension, phonetics. Use of videos, audio-visual aids, and "less-stress" techniques. Introduction to reading and writing. **TransferIN course.** 4 class hours.

FREN 103 – French Level II – 4 credit hours

A continuation of FREN 101 with structured oral communication, vocabulary building. Reading of graded and glossed materials, basic grammatical structures, writing. **TransferIN course.** 4 class hours.

Prerequisite: FREN 101 with grade of C or better **OR** PTF1 score of 21+

FREN 201 – French level III – 4 credit hours

Emphasis on reading. Conversation coordinated with reading of cultural text. *TransferIN course*. 4 class hours.

Prerequisite: FREN 103 with grade of C or better OR PTF1 score of 33+

FREN 203 – French level IV – 4 credit hours

A continuation of FREN 201 with emphasis on writing. Readings on cultural and contemporary topics. *TransferIN course*. 4 class hours.

Prerequisite: FREN 201 with grade of C or better

GRMN 101 – German Level I – 4 credit hours

An introduction to the German language and culture with emphasis on listening comprehension. Guided communication tasks, vocabulary building. Use of audio-visual aids, video, language lab, and “less-stress” techniques. *TransferIN course*. 4 class hours.

GRMN 103 – German Level II – 4 credit hours

A continuation of GRMN 101 with structured oral communication, vocabulary building. Introduction to reading of graded and glossed materials, basic grammatical structures, writing. *TransferIN course*. 4 class hours.

Prerequisite: GRMN 101 with grade of C or better OR PTG1 score of 21+

GRMN 201 – German Level III – 4 credit hours

Emphasis on reading. Conversation coordinated with reading of cultural text, written and oral reports. Continued study of grammar structures, vocabulary building. *TransferIN course*. 4 class hours.

Prerequisite: GRMN 103 with grade of C or better OR PTG1 score of 33+

GRMN 203 – German Level IV – 4 credit hours

A continuation of GRMN 201 with emphasis on writing. Cultural and contemporary topics. *TransferIN course*. 4 class hours.

Prerequisite: GRMN 201 with grade of C or better

HIMT 110 – Medical Terminology for Allied Health – 3 credit hours

This course is designed to acquaint students with the specialized language of medicine by focusing on the precise communication required by practitioners in medicine (i.e., health information managers, physical therapists, nurses, surgical technologists, occupational therapists, respiratory care practitioners, dental hygienists, doctors, etc.) and related fields. After learning the word elements (prefixes, suffixes, and combining forms), and being taught the correlation between word elements, abbreviations and symbols with the basic anatomy, physiology and disease processes of the human body, students will be able to quickly recognize medical word meanings and understand medical reports. *TransferIN course*. 3 lecture hours.

Required Placement Scores:

READING: ACT – 17; PSAT – 21; SAT (2-digit score) – 21 or (EBRW combined score) – 510; ACCU (Next Gen) – 231; ACCU (VU/Other) – 59

WRITING: ACT – 15; PSAT – 22; SAT (2-digit score) – 22 or (EBRW combined score) – 510; ACCU (Next Gen) – 231; ACCU (VU/Other) – 68

HIST 139 – American History I – 3 credit hours

The colonial period; causes and results of the American Revolution; the development of the federal system of government; the growth of democracy; early popular American culture; territorial expansion; slavery and its effects; sectionalism; causes and effects of the Civil War; Reconstruction, political and economic. *TransferIN course*. 3 lecture hours.

Required Placement Scores:

READING: ACT – 17; PSAT – 21; SAT (2-digit score) – 21 or (EBRW combined score) – 510; ACCU (Next Gen) – 231; ACCU (VU/Other) – 59

WRITING: ACT – 15; PSAT – 22; SAT (2-digit score) – 22 or (EBRW combined score) – 510; ACCU (Next Gen) – 231; ACCU (VU/Other) – 68

HIST 140 – American History II – 3 credit hours

Industrial growth of the nation and its effects, agrarian and urban discontent and attempts at reform, World War I, the Roaring Twenties, social and governmental changes of the thirties, World War II and its consequences, the growth of the federal government, social and political upheaval in the sixties and seventies, and the conservatism of the eighties.

TransferIN course. 3 lecture hours.

Required Placement Scores:

READING: ACT – 17; PSAT – 21; SAT (2-digit score) – 21 **or** (EBRW combined score) – 510; ACCU (Next Gen) – 231; ACCU (VU/Other) – 59

WRITING: ACT – 15; PSAT – 22; SAT (2-digit score) – 22 **or** (EBRW combined score) – 510; ACCU (Next Gen) – 231; ACCU (VU/Other) – 68

HORT 105 – Introduction to Landscape Horticulture – 3 credit hours

An introductory course in landscape horticulture. Emphasis will be on the study of growth and development, nomenclature, propagation, soils, and fertility related to trees, shrubs, flowers and turf. 3 lecture hours.

HORT 205 - Landscaping I – 3 credit hours

Elementary principles of landscape drafting and elementary residential landscape planning. Emphasis on the selection of ornamental plants consistent with design and environmental requirements. 2 lecture hours, laboratory hours.

HORT 255 – Landscaping II – 3 credit hours

Design principles and landscaping in relation to institutions, businesses, and multiple residences. Includes interpretation of plans, specifications and contracts, and preparation of cost estimates. 2 lecture hours, 3 laboratory hours.

Prerequisite: *HORT 205 with grade of C or better AND minimum placement scores.*

Required Placement Scores:

READING: ACT – 21; PSAT – 23; SAT (2-digit score) – 23 **or** (EBRW combined score) – 510; ACCU (Next Gen) – 250; ACCU (VU/Other) – 75

WRITING: ACT – 18; PSAT – 25; SAT (2-digit score) – 25 **or** (EBRW combined score) – 510; ACCU (Next Gen) – 250; ACCU (VU/Other) – 80

LAW 100 – Survey of Criminal Justice – 3 credit hours

This course will study the history, role, development, philosophy, and Constitutional aspects of the United States criminal justice system. The course will explore the various segments of the criminal justice system, their interrelationship, function, and responsibility. **TransferIN course.** 3 lecture hours.

LAW 101 – Basic Police Operations – 3 credit hours

This course will introduce the students to the basic functions of a police officer in society. The students will be guided to understand officer initiated activity, directed patrol responsibilities, standard report writing of incidents, and standards of proof. Students will deploy their knowledge through scenarios gaining an understanding of how case law governs an officer's actions. 3 lecture hours.

LAW 145 – Ethics and Professionalism in Criminal Justice – 3 credit hours

This course will guide students to understand the culture within the criminal justice system in order to prepare them for their chosen profession. This will be accomplished through critical writing exercises, communication exercises, core values training, community service, stress inoculation, and scenario based learning. Students will participate in physical exercises or other pertinent projects if medical or physical limitations prevent their participation in physical exercises. 3 lecture hours.

LAW 150 – Criminal Minds and Deviant Behavior – 3 credit hours

Introduction to the phenomena of crime and delinquency, to the types of offenses and offenders, to the basic units of the American Criminal Justice System, and to the role of law enforcement in prevention and control of deviant behavior. 3 lecture hours.

LITR 100 – Introduction to Literature – 3 credit hours

An introduction to literature and to three major genres: fiction, poetry, and drama. Emphasis is placed on the ability to read critically and gain an appreciation for literature. **TransferIN course.** 3 lecture hours.

Required Placement Scores:

READING: ACT – 21; PSAT – 23; SAT (2-digit score) – 23 or (EBRW combined score) – 510; ACCU (Next Gen) – 250; ACCU (VU/Other) – 75

WRITING: ACT – 18; PSAT – 25; SAT (2-digit score) – 25 or (EBRW combined score) – 510; ACCU (Next Gen) – 250; ACCU (VU/Other) – 80

MATH 102 – College Algebra – 3 credit hours

Designed as a pre-calculus course for the study of functions (including polynomial, rational, exponential, and logarithmic) and their graphs; includes transformations of functions, operations on functions, solution methods for linear and nonlinear equations, systems, and inequalities, and selected topics from analytic geometry. Utilizes graphing technology.

TransferIN course. 3 lecture hours.

Required Placement Scores:

MATH: ACT – 22; SAT (3-digit score) – 560; ACCU (Next Gen) – 255 QAS; ACCU (VU/Other) – 70

MATH 104 – Trigonometry – 3 credit hours

Discussion of the trigonometric functions of angles and numbers, use of trigonometric functions both in solutions of triangles and in the study of physical phenomena, such as electric circuits and sound waves, trigonometric identities, inverse trigonometric functions, and vectors are also studied. **TransferIN course.** 3 lecture hours.

Prerequisite: MATH 102 with grade of C or better OR minimum placement scores.

Required Placement Scores:

MATH: ACCU (Next Gen) – 270 QAS **and** 250 AAF; ACCU (VU/Other) – 74 EA **and** 55 CLM

MATH 111 – Finite Mathematics – 3 credit hours

Basic set theory, counting techniques, probability (including Markov chains, random variables, binomial distribution, and expected value), linear systems, matrices, linear programming and finance. Applications to problems from business and social sciences. **TransferIN course.**

Required Placement Scores:

MATH: ACT – 22; SAT (3-digit score) – 560; ACCU (Next Gen) – 255 QAS; ACCU (VU/Other) – 70

MATH 118 – Calculus with Analytic Geometry I – 5 credit hours

A knowledge of high school trigonometry is assumed. Plane analytic geometry, limits, differentiation and applications, introduction to integration, inverse functions, logarithm and exponential functions, and hyperbolic functions. **TransferIN course.** 5 lecture hours.

Prerequisite: MATH 102 and 104 with grade of C or better OR minimum placement scores.

Required Placement Scores:

MATH: ACCU (Next Gen) – 270 QAS **and** 250 AAF; ACCU (VU/Other) – 74 EA **and** 55 CLM

MGMT 100 – Introduction to Business – 3 credit hours

Exposes the student to the many kinds of business activities and how they influence society. Deals with three basic areas of business: production, marketing, and finance. Covers the role of people in business, from the managerial functions to the non-managerial skills. **TransferIN course.** 3 lecture hours.

MGMT 280 – Introduction to Marketing – 3 credit hours

Designed to provide students with a basic background of marketing activities as seen from the manager's point of view. Includes marketing strategy in general, packaging and branding, distributing and channel systems, retailing, wholesaling, mass media advertising, personal selling and matters concerning pricing decisions. 3 lecture hours.

PMTD 110 – Manufacturing Processes – 2 credit hours

This course is designed to provide students with a basic understanding of the processes used to produce industrial goods. Classroom discussion focuses on measurement, layout, inspection, machine tool operation, metallurgy, welding, shop math, blueprint reading, and safety. 2 lecture hours. *Corequisite: PMTD 110L*

PMTD 110L – Manufacturing Processes Lab – 1 credit hour

Using conventional machine tool equipment, assigned student projects will be built using milling machines, engine lathes, surface grinders, and band saws. Blueprint reading, layout, inspection, shop math, and safety will also be incorporated. 4 laboratory hours. *Corequisite: PMTD 110*

PMTD 120 – General Machines – 6 credit hours

This course is designed to build a foundation in precision machining. Classroom discussion focuses on theory, terminology, calculations, machine tool set-up, machine operation, and safety. Using conventional as well as CNC machine tool equipment, assigned student projects will be built using milling machines, engine lathes, surface grinders, drill presses, and band saws. Blueprint reading, layout, inspection, shop math, and safety will also be incorporated. 2 lecture hours, 18 lab hours.

Prerequisite: PMTD 110/L with grade of C or better. Seniors ONLY may enroll in both PMTD 110/L and 120, when both courses are run concurrently, yearlong, and there are enough total class hours to do so.

POLS 111 – American National Government – 3 credit hours

A study of federalism, theories of the origins and purposes of government and other aspects of the central government, including pressure groups, political parties, and the electoral process. Emphasis is also placed on constitutional backgrounds and the organization and functions of the executive, legislative, and judicial segments of the national government. *TransferIN course*. 3 lecture hours.

PSYC 142 – General Psychology – 3 credit hours

Provides a general survey of the science of Psychology. It includes the study of research methods, biological foundations, learning processes, human development, personality and abnormal psychology. *TransferIN course*. 3 lecture hours.

Required Placement Scores:

READING: ACT – 17; PSAT – 21; SAT (2-digit score) – 21 or (EBRW combined score) – 510; ACCU (Next Gen) – 231; ACCU (VU/Other) – 59

WRITING: ACT – 15; PSAT – 22; SAT (2-digit score) – 22 or (EBRW combined score) – 510; ACCU (Next Gen) – 231; ACCU (VU/Other) – 68

REST 100 – Introduction to Hospitality Management – 3 credit hours

An introductory but comprehensive course covering the many management processes of menu planning, purchasing, production, service, cost controls, sanitation, and housekeeping. 3 lecture hours.

REST 120 – Food Service Sanitation – 3 credit hours

This course will cover the basics of food service sanitation including pathogenic food borne disease, proper handling and storage of perishable commodities, personal hygiene practices, sources and elimination of contamination, and sanitary procedures in purchasing, storage, equipment and facilities. 3 lecture hours.

REST 155 – Quantity Food Purchasing – 3 credit hours

Using menu planning as the foundation of the food service industry, emphasis is placed on the techniques of specification and bid purchasing availability of products, selection of suppliers and the procedures for receiving, storage, inventory control, and ultimate economical use of product. 3 lecture hours.

SPAN 101 – Spanish Level I – 4 credit hours

An introduction to the Spanish language and culture with emphasis on listening and speaking skills. Guided communication tasks, vocabulary building. Use of audio-visual aids, video, language lab, and “less-stress” techniques. *TransferIN course*. 4 class hours.

SPAN 103 – Spanish Level II – 4 credit hours

A continuation of SPAN 101 with structured oral communication, vocabulary building. Continued emphasis on listening and speaking skills. Reading of graded and glossed materials, basic grammatical structures, writing. *TransferIN course*. 4 class hours.

Prerequisite: SPAN 101 with grade of C or better OR PTS1 score of 70+

SPAN 201 – Spanish Level III – 4 credit hours

Emphasis on reading. Conversation coordinated with reading of cultural text, written and oral reports. Continued study of grammar structures, vocabulary building. *TransferIN course*. 4 class hours.

Prerequisite: SPAN 103 with grade of C or better OR PTS2 score of 70+

SPAN 203 – Spanish Level IV – 4 credit hours

A continuation of SPAN 201 with emphasis on writing. Cultural and contemporary topics. *TransferIN course*. 4 class hours.

Prerequisite: SPAN 201 with grade of C or better

WELD 101 – Oxy-Acetylene Welding – 3 credit hours

A basic class in the theory and application of Oxy-Acetylene welding and cutting, including the correct use and maintenance of oxy-acetylene equipment and accessories. Proper techniques of welding, cutting and brazing with emphasis of safe welding practice are covered extensively. Types of welds covered include stringer beads, tee lap and butt joints on light gage steel. These welds will be made in the flat, horizontal and vertical positions in the forehand technique. 1 lecture hour, 5 lab hours.

WELD 102 – Shielded Metal Arc Welding I – 3 credit hours

This course involves the theory and application of the Shielded Metal Arc Welding process. Process theory will include basic electricity, power sources, electrode selection and all aspects pertaining to equipment operation and maintenance. Laboratory welds will be performed in basic weld joints with a variety of electrodes in the flat, horizontal and vertical positions. Emphasis will be placed on developing the basic skills necessary to comply with AWS industry standards. 1 lecture hour, 6 lab hours.

WELD 103 – Gas Metal Arc Welding – 3 credit hours

A course designed to cover the operation of Gas Metal Arc Welding (MIG) equipment. This will include all settings, adjustments and maintenance needed to weld with a wire feed system. Instruction on both short-arc and spray-arc transfer methods will be covered. Tee, lap and open groove joints will be done in all positions with solid, fluxcore and aluminum wire. Test plates will be made for progress evaluation. 1 lecture hour, 6 lab hours