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MET 100: Orientation to Engineering Technology	1
MAT 100: Foundation Skills in Math	3
ENG 101: Foundation Skills in Writing	3
CSC 104: Computer Applications	3
EST 100: Introduction to Technical Drawings	3
SCI 167: Physical Science	3
<b>Total</b>	<b>16</b>

Proctored Final Examination

## Semester 2

EST 110: Manufacturing Materials and Processes	3
MAT 115: Intermediate Algebra	3
MET 202: Drafting with AutoCAD®	3
ENG 100: English Composition	3
EET 115: Electrical-Electronics Theory	3
<b>Total</b>	<b>15</b>

Proctored Final Examination

## Semester 3

MET 170: Engineering Mechanics	3
MET 221: Quality Control Systems	3
MAT 222: Precalculus	3
Arts & Humanities Elective (choose two)	6
ENG 115: Introduction to Literature	
HUM 102: Art Appreciation	
HUM 104: Music Appreciation	

**Total** **15**

Proctored Final Examination

## Semester 4

EST 210: AutoCAD® Applications – Engineering Technology	3
Technical Electives (choose two)	6
EST 200: Fluid Power	
IET 232: Programmable Logic Controllers	
IET 237: Materials Management and Inventory Control	
IET 243: Industrial Safety	
MET 231: Mechanical Design 1	
MET 232: Mechanical Design 2	
MET 240: Electromechanical Control Technology	
MET 243: Tool Design	
MET 248: Industrial Plastics	
Social Science Elective (choose two)	6
BUS 121: Economics 1	
SSC 125: Introduction to Sociology	
SSC 130: Essentials of Psychology	
MET 300: Precision Machining	3

**Total** **18**

Proctored Final Examination

**Total Credits** **64**

## Computer Information Systems Associate of Science

The Computer Information Systems program will prepare students to obtain careers as entry-level application computer programmers, systems analysts, database administrators, and support specialists. Students will learn to use word processing, spreadsheet, database, and presentation software, HTML coding, programming in Java,™ systems analysis and design, programming with Visual Basic,® internet server environments, internet networking, and database technology. Students will need access to high-speed internet, a Microsoft® Windows® based computer running Windows 10® or later, Microsoft® Office 2019 or 365, and an email account to complete their program with Penn Foster. For tuition details, please visit our [Computer Information Systems Associate Degree tuition page](#).

### Program Goal

The Computer Information Systems Associates Degree program prepares students for an entry-level position in the field of computer and information technology.

### Program Outcomes

Upon completion of the program, students will be able to:

- Demonstrate the ability to create programs following basic problem-solving principles and guidelines common to all programming languages
- Demonstrate the ability to create and integrate documents using word processing, spreadsheet, and presentation software applications
- Demonstrate an understanding of communication systems used by computers to form networks and identify different networking implementation strategies and technologies available
- Demonstrate the ability to create and maintain a database and how the collected data can be deployed
- Demonstrate an understanding of the system development cycle and the role of the systems analyst in developing business applications
- Demonstrate a high level of inquiry, analytical, and problem-solving skills
- Demonstrate effective written and interpersonal communication skills
- Demonstrate effective quantitative skills

*Penn Foster College reserves the right to change program content and materials when it becomes necessary.*

- Demonstrate computer and information literacy
- Demonstrate an understanding of the liberal arts, natural sciences, and social sciences

### Semester 1

INT 101: Computer Technology Orientation	1
ILS 103: Information Literacy	1
MAT 115: Intermediate Algebra	3
CSC 104: Computer Applications	3
CSC 105: Introduction to Programming	3
Social Science Elective (choose two)	6
SSC 105: World Civilizations	
SSC 125: Introduction to Sociology	
SSC 130: Essentials of Psychology	

**Total** **17**

### Semester 2

CSC 221: Advanced PC Applications	3
INT 120: HTML Coding	3
ENG 100: English Composition	3
INT 128: Network Protocols and Internetworking	3
MAT 222: Precalculus	3

**Total** **15**

### Semester 3

ENG 121: Business and Technical Writing	3
CSC 218: Visual Basic	3
INT 225: Introduction to Database Technology	3
Science Elective (choose two)	6
SCI 110: Earth Science	
SCI 120: Introduction to Biology	
SCI 140: Nutrition	

**Total** **15**

### Semester 4

INT 215: Programming in Java™	3
CIS 245: Structured Systems Analysis and Design	3
Core Elective (choose two)	6
CSC 275: Computer Forensics	
INT 114: Internet Marketing and E-Commerce	
INT 125: Internet Server Environment	
INT 130: Internet Security	
INT 201: Website Project Management	
INT 205: Introduction to Internet Multimedia	
INT 210: Creating Web Pages with PHP	
INT 220: Programming in CGI/Perl	
INT 238: Multimedia and Interactive	
INT 242: Advanced Database Technology	
Arts & Humanities Elective (choose two)	6
ENG 115: Introduction to Literature	
HUM 102: Art Appreciation	
HUM 104: Music Appreciation	

**Total** **18**

**Total Credits** **65**

## Construction Technology Associate of Science

The Construction Technology Program enables students to prepare and qualify for more advanced positions in residential and light commercial construction, applying the learned principles of building technologies. The program provides a breadth of theory and knowledge in core subjects, electives, and general-education studies that provide the technical and managerial expertise that will allow for future advancement. For tuition details please visit our [Construction Technology Associate Degree tuition page](#).

### Program Goal

The program goal for the A.S. in Construction Technology degree is to prepare students to enter positions in residential and light commercial construction. Students will learn technical and managerial skills that will allow for future advancement.

### Program Outcomes

Upon completion of the program, students will be able to:

- Demonstrate effective written and interpersonal communication skills
- Demonstrate a high level of inquiry, analytical, and problem-solving skills
- Demonstrate effective quantitative skills
- Demonstrate proficient computer & information literacy skills
- Demonstrate an understanding of the liberal arts, natural sciences, and social sciences
- Discuss the management function and application to the business organization
- Recognize appropriate techniques for



- administering and evaluating construction contracts, documents, and codes
- Estimate costs and quantities, and determine how to evaluate materials for construction projects
- Develop and interpret various types of engineering drawings used in the construction field, including computer-aided design (CAD)
- Describe types of materials and management and building practices used in the construction industry
- Interpret and identify nationally accepted code requirements and industry standards necessary for application of construction materials

### Semester 1

MET 100: Orientation to Engineering Technology	1
MAT 100: Foundation Skills in Math	3
ENG 101: Foundation Skills in Writing	3
CSC 104: Computer Applications	3
EST 100: Introduction to Technical Drawings	3
SCI 167: Physical Science	3
<b>Total</b>	<b>16</b>
Proctored Final Examination	

### Semester 2

BCT 110: Introduction to Construction Technology	3
MET 202: Drafting with AutoCAD®	3
ENG 121: Business and Technical Writing	3
MAT 115: Intermediate Algebra	3
BCT 215: Construction Materials and Methods	3
<b>Total</b>	<b>15</b>
Proctored Final Examination	

### Semester 3

MAT 222: Precalculus	3
BCT 210: Statics/Strengths of Construction Materials	3
BCT 249: Basic Surveying and Measurement	3
Social Science Elective (choose two)	6
SSC 105: World Civilizations	
SSC 125: Introduction to Sociology	
SSC 130: Essentials of Psychology	
EST 215: AutoCAD Applications — Construction	3
<b>Total</b>	<b>18</b>
Proctored Final Examination	

### Semester 4

Technical Elective (choose two)	6
BCT 160: Architectural Drawing	
BCT 220: Building Systems	
BCT 250: Codes and Specifications	

BCT 280: Architectural Design	
BCT 260: Construction Estimating	
BCT 275: Construction Planning and Control	
BCT 255: Green Building Practices	
Arts & Humanities Elective (choose two)	6
ENG 115: Introduction to Literature	
HUM 102: Art Appreciation	
HUM 104: Music Appreciation	
BCT 300: Drafting and Engineering Mechanics	3
<b>Total</b>	<b>15</b>
Proctored Final Examination	
<b>Total Credits</b>	<b>64</b>

## Graphic Design Undergraduate Certificate

This program will teach students the essential knowledge and skills needed to use commercial software packages for graphic design in print and web-based applications. Students will learn the basics of graphic design theory and how to apply that theory using industry accepted software packages. The program also includes complimentary courses in typography and corporate and personal portfolio development. All of the course credits earned with this program are transferable to the Associate of Science Degree in Graphic Design. For tuition details, please visit our [Graphic Design Undergraduate Certificate tuition page](#).

### Program Goal

The Graphic Design undergraduate certificate program prepares students to use Adobe® software for graphic design and production in a current career or to continue their graphic design education.

### Program Outcomes

- Upon completion of the program, students will be able to:
- Identify different career options available to digital artists
  - Understand the correct use of color and its effectiveness in creating designs
  - Describe the formal elements of design, including line, shape, form, direction, texture, value, color, and composition
  - Use Adobe Illustrator® to create graphics illustrations for print, multimedia and the web
  - Use Adobe Photoshop® to create high quality photos, graphics for product illustrations, logos, animations, and websites

- Use Adobe Illustrator® or Adobe Photoshop® to enhance words, phrases or quotations, to communicate effectively with the audience, and use both traditional and contemporary typographic skill
- Use Adobe InDesign® to design an image, brochure, magazine, or web page to reach target audiences with printed publications that can be repurposed into interactive digital documents for delivery on the web and on mobile and tablet devices
- Use brand information to design a package that's appropriate for the target audiences
- Discuss general manufacturing and printing processes related to packaging design
- Create an effective, interactive web-based portfolio to use during a job search

GRD 101: Graphic Design Orientation	1
GRD 105: Color Theory	3
GRD 110: Introduction to Graphic Design	3
GRD 115: Graphic Design and Production (Illustrator®)	3
GRD 130: Photo Image Editing 1	3
GRD 135: Photo Image Editing 2	3
GRD 201: Typography	3
GRD 205: Electronic Publishing	3
GRD 212: Corporate Design	3
GRD 220: Web Design	3
GRD 225: Portfolio Development	3
<b>Total</b>	<b>31</b>
Proctored Final Examination	

## Graphic Design Associate of Science

Graphic Design will prepare students for careers in the graphics industry as designers, commercial artists, and computer graphic designers. Such positions combine the skills of graphic art, graphic design, web graphic arts design, and desktop publishing. Students will receive the training and the portfolio necessary to interview for entry-level positions in advertising agencies, design studios, publishing houses, and corporate communications departments. For tuition details, please visit our [Graphic Design Associate Degree tuition page](#).

### Program Goal

The Graphic Design Degree program prepares students for an entry-level position in the design industry.

### Program Outcomes

Upon completion of the program, students will be able to:

- Identify different career options available to digital artists
- Understand the correct use of color and its effectiveness in creating designs
- Describe the formal elements of design, including line, shape, form, direction, texture, value, color, and composition
- Use Adobe Illustrator® to create graphics illustrations for print, multimedia, and the web
- Use Adobe Photoshop® to create high quality photos, graphics for product illustrations, logos, animations, and websites
- Use Adobe Illustrator® or Adobe Photoshop® to enhance words, phrases, or quotations, to communicate effectively with the audience, and use both traditional and contemporary typographic skill
- Use Adobe InDesign® to design an image, brochure, magazine, or web page to reach target audiences with printed publications that can be repurposed into interactive digital documents for delivery on the web and on mobile and tablet devices
- Use brand information to design a package that's appropriate for the target audiences
- Discuss general manufacturing and printing processes related to packaging design
- Design and launch a web page using HTML and XHTML
- Design user friendly and visually appealing web pages that include multimedia features such as animation
- Use Adobe Animate® and basic animation skills to create effective, entertaining, and interactive animations



- Create an effective, interactive web-based portfolio to use during a job search
- Demonstrate effective written and interpersonal communication skills
- Demonstrate a high level of inquiry, analytical, and problem-solving skills
- Demonstrate effective quantitative skills
- Demonstrate computer & information literacy
- Demonstrate an understanding of the liberal arts, natural sciences, and social sciences

#### Semester 1

GRD 101: Graphic Design Orientation	1
ILS 103: Information Literacy	1
CSC 104: Computer Applications	3
GRD 105: Color Theory	3
ENG 100: English Composition	3
GRD 110: Introduction to Graphic Design	3
<b>Total</b>	<b>14</b>
Proctored Final Examination	

#### Semester 2

HUM 102: Art Appreciation	3
GRD 201: Typography	3
INT 205: Introduction to Internet Multimedia	3
GRD 115: Graphic Design and Production (Illustrator®)	3
GRD 130: Photo Image Editing 1	3
<b>Total</b>	<b>15</b>
Proctored Final Examination	

#### Semester 3

GRD 135: Photo Image Editing 2	3
GRD 212: Corporate Design	3
GRD 205: Electronic Publishing	3
ENG 121: Business and Technical Writing	3
MAT 115: Intermediate Algebra	3
SSC 130: Essentials of Psychology	3
<b>Total</b>	<b>18</b>
Proctored Final Examination	

#### Semester 4

GRD 220: Web Design	3
Science Elective (choose one)	3
SCI 110: Earth Science	
SCI 120: Introduction to Biology	
SCI 140: Nutrition	
INT 120: HTML Coding	3
INT 238: Multimedia and Interactive	3

GRD 222: Dreamweaver	3
GRD 225: Portfolio Development	3
<b>Total</b>	<b>18</b>
Proctored Final Examination	
<b>Total Credits</b>	<b>65</b>

*Penn Foster College reserves the right to change program content and materials when it becomes necessary.*

## Industrial Electronics & Electrical Maintenance Technology Associate of Science

The Industrial Electronics and Electrical Maintenance Technology Associate Degree Program enables students to prepare and qualify for positions where they will be able to help design, troubleshoot, and maintain electrical and electronic equipment. For tuition details please visit our [Industrial Electronics & Electrical Maintenance Technology Associate Degree tuition page](#).

### Program Goal

The overall program goal for the A.S. in Industrial Electronics and Electrical Maintenance Technology Degree is to prepare students to enter positions in which they'll help design, troubleshoot, and maintain electrical and electronic equipment.

### Program Outcomes

- Upon completion of the program, students will be able to:
- Demonstrate effective written and interpersonal communication skills
  - Demonstrate a high level of inquiry, analytical, and problem-solving skills
  - Demonstrate effective quantitative skills
  - Demonstrate proficient computer and information literacy skills
  - Demonstrate an understanding of the liberal arts, natural sciences, and social sciences
  - Recognize the work habits and characteristics that are demonstrated by successful technicians, including the codes and standards that technicians must know
  - Read and interpret various types of technical drawings, including those used in electrical/electronics applications, and understand the basics of computer-aided design (CAD)



- Develop schematics, line drawings, and panel prints used for the design, manufacture, and maintenance of electrical and electronics systems
- Identify the basic concepts, terminology, and applications relating to electricity, including the components and operation of electrical systems
- Recognize the components and applications of circuits, and list how to troubleshoot circuits
- Identify the basic concepts, terminology, and applications relating to electronics, including the components and operation of electronic systems
- Explain how to test and diagnose electrical and electronic equipment using measuring and diagnostic devices, such as multimeters and oscilloscopes
- Describe the operation of transformers, and identify various types, including single- and three-phase transformers
- Identify electrical-system installation and design processes, and evaluate sample installations to ensure code compliance
- Identify various types of electric motors & describe how they're controlled, list the steps to use when troubleshooting electric motors & controllers
- Demonstrate an understanding of the hands-on, technical skills employed by electrical and electronics technicians in a laboratory setting, including the topics of measurements, circuitry, transformers, and motors
- Design circuits in AutoCAD using principles of AC and DC theory

### Semester 1

MET 100: Orientation to Engineering Technology	1
MAT 100: Foundation Skills in Math	3
ENG 101: Foundation Skills in Writing	3
CSC 104: Computer Applications	3
EST 100: Introduction to Technical Drawings	3
SCI 167: Physical Science	3
<b>Total</b>	<b>16</b>
Proctored Final Examination	

### Semester 2

EET 101: Fundamentals of Electricity	3
MET 202: Drafting with AutoCAD®	3
EET 103: Fundamentals of Electronics	3
MAT 115: Intermediate Algebra	3
ENG 100: English Composition	3
<b>Total</b>	<b>15</b>
Proctored Final Examination	

### Semester 3

EET 105: Electrical/Electronic Measurements and Instruments	3
EET 182: Electronic Circuits	3
MAT 222: Precalculus	3
Social Science Elective (choose two)	6
BUS 121: Economics 1	
SSC 125: Introduction to Sociology	
SSC 130: Essentials of Psychology	
<b>Total</b>	<b>15</b>
Proctored Final Examination	

### Semester 4

EST 220:AutoCAD® Applications — Electrical/Electronics	3
Technical Electives (choose two)	6
EET 210: Electric Motors and Controls	
EET 214: Interpreting the National Electrical Code®	
EET 215: Electronic Process Controls	
EET 216: Electrical Installations	
EET 218: Basic Industrial Computer Systems	
EET 221: Pulse Circuits	
EET 235: Digital Electronics	
IET 232: Programmable Logic Controllers	
Arts & Humanities Elective (choose two)	6
ENG 115: Introduction to Literature	
HUM 102: Art Appreciation	
HUM 104: Music Appreciation	
EET 300:Drafting Electrical and Electronic Schematics	3
<b>Total</b>	<b>18</b>
Proctored Final Examination	
<b>Total Credits</b>	<b>64</b>

## Industrial Supervision Associate of Science

Penn Foster's Industrial Supervision Associate Degree Program consists of 61 credits that are designed for those looking to advance their careers or join the workforce in supervisory roles. For tuition details, please visit our [Industrial Supervision Associate Degree tuition page](#).

## Program Goal

To provide students the understanding needed to seek employment or advance their careers in supervisory roles in the Industrial space, specifically related to positions that require college-level training.

## Program Outcomes

Upon completion of the program, students will be able to:

- Identify key skills for the supervision and leadership of employees and successful work relationships
- Demonstrate effective written and interpersonal communication skills
- Demonstrate effective quantitative skills
- Describe total quality management (TQM), materials and inventory management, inspection plans, measuring tools that collect quality data, and various statistical process control methods
- Discover the principles of materials management and inventory control to maximize the use of resources for the required level of customer service
- Recognize important safety facts and practices associated with electrical, chemical, fire, material handling, and machine hazards
- Define the basics of lean manufacturing and the key lean and continuous improvement (CI) fundamental principles in conjunction with continuous-improvement methods and tools
- Demonstrate computer and information literacy
- Demonstrate an understanding of the principles and processes involved in the functional areas and the need for collaboration among the different functions

- Discuss the steps of the accounting cycle and utilize financial document information as a management tool to plan and track the financial status of a business
- Demonstrate an understanding of the liberal arts, natural sciences, and social sciences
- Discover other topics in supervision and leadership that may apply also in the industrial workplace

### Semester 1

SYPI01 Starting Your Program	
BUS115 Introduction to Supervision and Leadership	1
ENG101 Foundation Skills in Writing	3
MAT100 Foundation Skills in Math	3
SCI167 Physical Science	3
CSC104 Computer Applications	3
IET243 Industrial Safety	3
ILS103 Information Literacy	1
<b>Total</b>	<b>17</b>

### Semester 2

IET237 Materials Management and Inventory Control	3
ENG100 English Composition	3
ACC111 Financial Accounting	3
Social Science Elective (Pick 1)	3
SSC130 Essentials of Psychology	
SSC105 World Civilizations	
SSC125 Introduction to Sociology	
BUS121 Economics 1	
MET221 Quality Control Systems	3
<b>Total</b>	<b>15</b>



### Semester 3

BUS110 Principles of Management	3
ACC112 Managerial Accounting	3
ENG121 Business and Technical Writing	3
IET135 Lean Manufacturing	1
Arts and Humanities Elective (Choose 1)	3
ENG115 Introduction to Literature	
HUM102 Art Appreciation	
HUM104 Music Appreciation	
BUS105 Customer Service	1
<b>Total</b>	<b>14</b>

### Semester 4

HRM201 Human Resources Management	3
ENG200 Speech	3
BUS350 Supervision and Leadership	3
BUS340 Organizational Behavior	3
Technical Elective (Pick 1)	3
HRM350 Labor Relations	
BUS220 Supply Chain Management	
MKT301 Marketing	
<b>Total</b>	<b>15</b>
<b>Total Credits</b>	<b>60</b>

## Veterinary Technician Associate of Science

The Mission Statement of the Veterinary Technician Program here at Penn Foster College is to develop veterinary technicians that have both excellent “people” skills as well as excellent “technical” skills. Our Veterinary Technician Program will challenge students to be the **BEST**, they can be! It will provide them with a balance of academics and clinical skills in both the online classroom as well as the veterinary communities where they live, allowing them to achieve a high degree of knowledge, hands-on technical skills, and people skills. Our program has full accreditation with the American Veterinary Medical Association (AVMA) through their Committee on Veterinary Technician Education and Activities (CVTEA). Graduates of our program will have career opportunities in private veterinary practice, research, industry, government, educational institutions, and more. The program is a four-semester program, with clinical externship experiences occurring at the end of both Semester 2 and 4.

### Physical Requirements

Working as a veterinary technician is physically demanding. Veterinary technicians must be able to walk and stand for long periods of time. The ability to reach, bend, climb, and crouch is needed to perform job responsibilities. Other requirements include the ability to lift and carry 50 pounds without assistance, to see, to speak (in English), and to hear well enough to communicate observations about animals, and to possess arm and hand steadiness — as well as finger dexterity — to operate equipment and work with animals. Students will learn many important fundamentals needed in their careers in the following academic courses: animal anatomy and physiology, office management, computer skills, diagnostic imaging, pharmacology, clinical pathology, animal care and management, surgical procedures, anesthesiology, animal parasitology, animal diseases, laboratory animal science, and animal nutrition.

Students are encouraged to prioritize their time schedule while in the program in order to focus on the excellent education they'll receive during the program. Graduates will be joining the veterinary technician profession as trained and skilled professionals upon successfully passing the Veterinary Technician National Examination (VTNE) graduates will become credentialed veterinary technicians. And depending on the state lived in, the graduate who successfully passes the VTNE will either be a licensed veterinary technician (LVT), registered veterinary technician (RVT), or a certified veterinary technician (CVT). Our VTNE results are available via the Penn Foster website.

There are many job opportunities and responsibilities. After graduation, they includes but aren't limited to the following areas: managing a veterinary practice, operating and maintaining a veterinary pharmacy, providing postoperative nursing care and therapeutic support, assisting veterinarians in surgical procedures, administering anesthesia and monitoring anesthetized animals, performing laboratory tests, and properly handling and restraining all species of animals. For tuition details, please visit our [Veterinary Technician Associate Degree tuition page](#).

## Student Health Policies

Students are responsible for their own medical care and health insurance during Clinical Externship 1 and Clinical Externship 2 in the Penn Foster Veterinary Technology Program. The student is responsible for the costs associated with obtaining medical insurance and any costs associated with needed medical care. Neither the college nor the program nor the externship site is responsible for needed medical care. Proof of medical insurance will need to be provided to the school as part of the clinical externship documents.

Veterinary Technology students should inform the program faculty immediately if there's any health condition that will interfere with their participation in the Clinical Externships. It's important to note that all students are required to perform all skills in each of the Clinical Externships in order to graduate from the program. Program faculty can discuss the options the student has for waiting to complete the Clinical Externship Course. Students will also need to keep our normal enrollment guidelines in mind. They may have to purchase a study time extension, or re-enroll into the program depending on the length of time that has passed. There are additional guidelines in the following Pregnancy Policy for students who may become pregnant.

Students need to be aware of the risk of zoonotic diseases (rabies, ringworm, intestinal parasites, toxoplasmosis, and so on) that are associated with participation in the clinical externship courses and with the veterinary technician profession in general. Zoonotic diseases are diseases that can be passed from animals to people. People working in the veterinary field are generally considered to be at high risk for encountering zoonotic diseases due to their daily interactions with animals. Rabies is one example of a zoonotic disease. Students are strongly encouraged to seek preexposure rabies vaccination prior to their first clinical externship.

- After discussion with their personal physician, students can elect to waive the rabies vaccination. Students who aren't vaccinated are prohibited from handling nonvaccinated animals or animals of unknown vaccine status during their clinical externships.
- Vaccinated students are highly encouraged to handle only animals with a known vaccine status while completing their clinical externships.

- The student is required to complete the rabies vaccination form provided by the school. The form will inform the school of the student's vaccination status.

Students will be handling animals during Clinical Externship 1 and Clinical Externship 2. Because of the professional nature of the program, the college is in no way liable for students being bitten or scratched while handling animals during their clinical externship courses. It's our policy that students shouldn't handle aggressive animals during their clinical externships. Students should only be handling nonaggressive animals with a known vaccine history. Even with these policies in place, animals can be unpredictable, and bites, scratches, and other injuries may occur. If a student gets injured during their clinical externship, they should follow the clinic's protocol and seek appropriate medical care as soon as possible. Students are also required to submit any documentation regarding any injuries they received during the externship to the clinical coordinator.

## Student Pregnancy Policy

Students who become pregnant while enrolled in the Veterinary Technology Program have the option to voluntarily inform the program faculty of their pregnancy. This must be given to the program in writing and must include the expected date of delivery. A student won't be considered pregnant until this written disclosure is received by the program. Upon written disclosure, the student will meet with program faculty to discuss the risks and possible harmful effects of exposure to animals, radiation, anesthetic gases, and other risks to the fetus that are inherent in the practice of veterinary medicine as a technician. Program faculty will discuss the options available to the student to fulfill the educational requirements of the program. The pregnant student must follow the established program policies and meet the same clinical and educational criteria as all other students before graduation from the program.

- The student may remain in the Program if the student is not at the Clinical Externship 1 or Clinical Externship 2, and therefore is able to continue with their coursework.
- If the student has reached, but not yet started, Clinical Externship 1 or Clinical Externship

2 – they can stop progress in the program. They'll be allowed to restart the program in accordance with our normal enrollment guidelines. Students may be required to pay for a study time extension when they're ready to start the program again. If the student is at risk of going beyond the six year time limit of the program, they will have to re-enroll into the program according to our normal policies.

- If the student is currently in clinical externship 1 or clinical externship 2 – they can voluntarily stop progress in their externship. They'll need to notify the clinical coordinator when they can continue with their clinical externship. Students will have to re-apply for the clinical externship and may be required to restart the clinical externship from the beginning. Students will also need to keep our normal enrollment guidelines in mind. They may have to purchase a study time extension or re-enroll into the program depending on the length of time that has passed.
- Students may undeclare their pregnancy at any time. This must be done in writing. If they choose this option, they'll be considered not pregnant and will be required to complete the coursework as designed (including the clinical externships).
- Although it is both the policy and practice of the program to offer the utmost in safety precaution for its student, Penn Foster College or its affiliates won't be responsible for injury to either the pregnant student or child due to hazard exposure during pregnancy.

All students will be required to sign a form before each clinical externship verifying that they have read and understand this policy.

### **Penn Foster's Institutional Animal Care and Use Committee (IACUC) Procedures**

The Penn Foster's IACUC mission statement is to provide clinical instructional oversight and evaluation of the veterinary academy program's externships by ensuring compliance with federal regulations related to the proper care, use, and humane treatment of animals used in research, testing, and education. The veterinary technician externships are created in accordance with the American Veterinary Medical Association's (AVMA) Committee on Veterinary Technician Education and Activities' (CVTEA) standards. The veterinary assistant externship is created in accordance with the National Association of Veterinary Technicians in America (NAVTA) Essential Skills for Assistant Training.

### **Animal Usage**

Clinical procedures shouldn't be performed on animals more often than once every three days, and no animal may be used for more than three total procedures, unless the attending veterinarian determines that there's a medical reason to perform the procedure. Students are allowed a maximum of two attempts per procedure per animal.

### **Policy on reporting complaints in regards to Penn Foster's use of animals:**

1. Penn Foster's Veterinary Academy is committed to the ethical and humane care and use of animals in teaching situations. If a clinical supervisor, student, or faculty member is aware of any potential violation to the stated animal care and use criteria or observes the mistreatment of animals, they're strongly encouraged to report their concerns.

2. Concerns can be reported directly to the chair and veterinarian by emailing to [vettechpracticum@pennfoster.edu](mailto:vettechpracticum@pennfoster.edu) Attention: Vicki McLain (Chair).

3. The chair will compose a written document of the issue, the committee's actions/recommendations, and any other pertinent information.

4. Depending on the committee's recommendations, the document may be forwarded to the Institution Official, the Program Director, and the appropriate state veterinary board if deemed necessary.

5. Any action deemed necessary will be clearly documented and handled as appropriate. All information will be filed with the IACUC documents.

6. Penn Foster's Veterinary Academy will not tolerate the harassment or any retaliation directed at anyone who reports actual or possible violations. The Penn Foster IACUC will protect the positions and reputations of those who, in good faith, make allegations of animal welfare violations. Investigations will be conducted as carefully and discreetly as possible.

### **Meetings**

The IACUC meetings are conducted semi-annually. At this time, the committee will discuss animal welfare issues where applicable in the Veterinary Academy. We will evaluate our animal care and use protocols, clinical externships, and ensure compliance with the Animal Welfare Act.

The meeting minutes are kept by the chair, who will prepare and distribute them after the meeting to each committee member, the program director, and the institutional officer (IO).

If there's a need to appoint a new member of the IACUC, they must be approved by the CEO, and the incoming member must accept the position.

### VTNE Policy

It is our belief that students should wait until after they have completed the program to take the Veterinary Technician National Examination (VTNE). The Clinical Externship 2 course is like another review course for the VTNE. During your Externship 2, you will need to review information before completing skills, actually perform the skills, and then complete all the materials to be submitted for the skills. These tasks will help prepare you for the VTNE. We are aware that a small number of states will allow students to take the VTNE before graduation if the school can verify the graduation date. Penn Foster is unlike a traditional school. Students study at a pace that is right for them, and students can begin the program at a time convenient for them. Due to this, we are unable to provide exact graduation dates for our students before they have completed the program.

It is our policy that we will only fill out state VTNE Application forms after a student completes the program. A student may petition to have us fill out a form before they have completed the program if they can meet all of the following criteria:

1. The student is active in Clinical Externship 2.
2. The student has never had an incomplete or failing grade posted for Clinical Externship 2.
3. The student has at least 24 skills accepted by their faculty evaluator in Clinical Externship 2.
4. The student's study time has not expired.
5. The student has not gone beyond the maximum time allowed in the program (see standards of progression in the student handbook).

If a student has met all the criteria, they can petition the Veterinary Academy to have a form completed. The student must provide all necessary forms and information to Penn Foster if they want their request considered. It is the student's responsibility to check with their state licensing agency regarding the application process for the VTNE. Students can find information regarding the VTNE and links to the various state agencies at [www.aavsb.org](http://www.aavsb.org).

### Program Goal

The Veterinary Technician associate degree, program will prepare students to work as veterinary technicians in small or large animal hospitals or clinics. The program also prepares students to take the Veterinary Technician National Examination.

### Program Outcomes

Upon completion of the program, students will be able to:

- Demonstrate effective written and interpersonal communication skills
- Demonstrate a high level of inquiry, analytical, and problem-solving skills
- Demonstrate effective quantitative skills
- Demonstrate computer & information literacy
- Demonstrate an understanding of the liberal arts, natural sciences, and social sciences
- **Offic and Hospital Procedures, Client Relationships, and Communication**
  - Participate in facility management utilizing traditional and electronic media and appropriate medical terminology and abbreviations
  - Communicate in a professional manner in all formats—written, oral, non-verbal, and electronic
  - Follow and uphold applicable laws and the veterinary technology profession's ethical codes to provide high quality care to patients
- **Pharmacy and Pharmacology**
  - Safely and effectively administer prescribed drugs to patients
- **Nursing**
  - Demonstrate and perform patient assessment techniques in a variety of animal species
  - Understand and demonstrate husbandry, nutrition, and therapeutic and dentistry techniques appropriate to various animal species
- **Anesthesia**
  - Safely and effectively manage and maintain patients in all phases of anesthesia
- **Surgical Nursing**
  - Understand and integrate all aspects of patient management for common surgical procedures in a variety of animal species
  - Understand and provide the appropriate instruments, supplies, and environment to maintain asepsis during surgical procedures

- **Laboratory Procedures**
  - Properly package, handle, and store specimens for laboratory analysis
  - Properly carry out analysis of laboratory specimens
- **Imaging**
  - Safely and effectively produce diagnostic radiographic and non-radiographic images
- **Laboratory Animal Procedures**
  - Safely and effectively handle common laboratory animals used in animal research
- **Avian, Exotic, Small Mammals, and Fish Procedures**
  - Understand the approach to providing safe and effective care for birds, reptiles, amphibians, guinea pigs, hamsters, gerbils, and ferrets

Below is an in-depth look at the curriculum in our program:

#### Semester 1

SYP 104: Starting Your Program	0
VET 102: Introduction to Veterinary Technology	2
ILS 103: Information Literacy	1
CSC 115: Office Applications	1
SCI 120: Introduction to Biology	3
VET 115: Animal Anatomy and Physiology 1	3
VET 116: Animal Anatomy and Physiology 2	3
Proctored Examination	
<b>Total</b>	<b>13</b>

#### Semester 2

ENG 100: English Composition	3
VET 106: Veterinary Office Management and Skill with People	3
MAT 102: Mathematical Applications	3
VET 110: Medical Nursing for Veterinary Technicians	3
MAT 140: Medical Mathematics	3
VET 124: Pharmacology for Veterinary Technicians	3
Proctored Final Examination	
VET 131: Clinical Externship 1	4
<b>Total</b>	<b>22</b>

#### Semester 3

VET 201: Clinical Pathology 1	3
VET 202: Clinical Pathology 2	3
Arts and Humanities Elective (choose one)	3
HUM 102: Art Appreciation	
HUM 104: Music Appreciation	

VET 212: Anesthesia for Veterinary Technicians	3
VET 214: Surgical Nursing for Veterinary Technicians	3
VET 222: Clinical Parasitology for Veterinary Technicians	3
Proctored Examination	
<b>Total</b>	<b>18</b>

#### Semester 4

VET 220: Radiography for Veterinary Technicians	3
VET 224: Small and Large Animal Medicine	3
SSC 130: Essentials of Psychology	3
VET 225: Animal Nutrition, Reproduction, Genetics, and Aging	3
VET 228: Laboratory Animal Medicine and Nursing	3
VET 229: Veterinary Technician National Examination Review	1
Proctored Final Examination	
VET 231: Clinical Externship 2	4
<b>Total</b>	<b>20</b>
<b>Total Credits</b>	<b>73</b>

*Penn Foster College reserves the right to change program content and materials when it becomes necessary.*

## Veterinary Practice Management Undergraduate Certificate

The Penn Foster Veterinary Practice Management Undergraduate Certificate will provide you with the education to develop strategies, procedures, policies, and management skills to run the daily operations of a veterinary business and to satisfy the college semester hours required for CVPM certification. A veterinary practice manager is an individual who is responsible for the day-to-day business operations of the veterinary practice. For tuition details please visit our [Veterinary Practice Management Undergraduate Certificate tuition page](#).

### Program Goal

To prepare students to seek a veterinary practice manager position by providing them with the education to develop strategies, procedures, policies, and management skills to run the daily operations of a veterinary business and to satisfy the college semester hours required for CVPM certification.

## Program Outcomes

Upon completion of the program, students will be able to:

- Identify individual life goals and steps needed to fulfill them, similarities between personal financial goals and business goals, the basics of setting up a budget, and starting up and maintaining a business
- Discuss both the business environment and a manager's role in decision-making, planning, organizing, leading, controlling, and developing an ethical perspective
- Comprehend the management of the facility's finances, such as patient fees and billing
- Discover the importance of understanding and implementing laws and requirements in a veterinary practice.
- Examine how to provide exceptional customer service to their clients while helping the veterinary practice to grow financially
- Describe the human resources function as it relates to the business environment
- Examine the factors affecting marketing plans to promote the business's products or services through an understanding of marketing principles, consumer buying habits, and advertising strategies
- Discover the importance and methods of marketing and promotion for a veterinary practice
- Summarize the ethical and legal standards in the business environment
- Analyze relevant business ethics issues when confronted with a new decision situation in a veterinary practice.

### Semester 1

BUS 100: Business Orientation	1
BUS 110: Principles of Management	3
ACC 113: Basic Accounting	3
VET 250: Veterinary Practice Management	3
HRM 201: Human Resources Management	3
MKT 301: Marketing	3
BUS 400: Business Ethics	3
<b>Total</b>	<b>19</b>

# Veterinary Technology Bachelor of Applied Science

## Program Goal

To prepare students for additional career pathway opportunities above and beyond the entry-level general practice opportunities afforded by an Associate Degree in Veterinary Technology. These would include both additional clinical opportunities as well as hospital management opportunities.

The Bachelor of Applied Science Degree in Veterinary Technology is a Bachelor's completion degree program. Students must have an Associate's degree from an AVMA accredited program in order to enroll into program. Students are required to transfer in 60 credits from an AVMA accredited program. The program consists of 61 credits. The student will complete the program with 121 credits.

## Program Outcomes

Upon completion of the program, students will be able to:

- Demonstrate effective written communication skills
- Demonstrate effective interpersonal communication skills in a professional manner in all formats – written, oral, non-verbal, and electronic
- Demonstrate a high level of analytical, problem-solving, and critical thinking skills
- Demonstrate an understanding of and integrate all aspects of patient surgical management in a variety of animal species
- Demonstrate an understanding of and integrate all aspects of patient preventative healthcare as well as medical management in a variety of animal species
- Demonstrate an understanding of a Veterinary Technician Specialty (VTS) or of a Certified Veterinary Practice Manager (CVPM)
- Demonstrate an understanding of leadership and management skills as a manager of a veterinary practice or a research/corporate institution



**Semester 1**

HUM 108: Career Readiness	1
VET 302: Understanding the Human-Animal Bond	3
ENG 300: Advanced Composition	3
Mathematics Elective (choose one)	3
MAT 115: Intermediate Algebra	
MAT 210: Business Statistics	
VET 305: Advanced Veterinary Pharmacology	3
BUS 110: Principles of Management	3
<b>Total</b>	<b>16</b>

**Semester 2**

VET 307: Introduction to Research in Veterinary Technology	1
SCI 300: Essentials of Biochemistry	3
ACC 113: Basic Accounting	3
General Education Elective (choose one)	3
ENG 200: Speech	
FIN 210: Personal Financial Management	
SSC 310: Sociology of Diversity	
BUS 340: Organizational Behavior	
CSC 221: Advanced PC Applications	
BUS 315: Legal Environment of Business	
VET 303: Preventive Healthcare and Integrative Medicine for Animals	3
VET 250: Medicine Practice Management	3
<b>Total</b>	<b>16</b>

**Semester 3**

VET 304: Advanced Animal Medicine and Domestic Animal Species Nursing	3
VET 306: Safety and Regulatory Compliance in Veterinary Medicine	1
BUS 350: Supervision and Leadership	3
VET 402: Veterinary Emergency and Critical Care	3
HRM 201: Human Resources Management	3
General Education Elective (choose one)	3
ENG 200: Speech	
FIN 210: Personal Financial Management	
SSC 310: Sociology of Diversity	
BUS 340: Organizational Behavior	
CSC 221: Advanced PC Applications	
BUS 315: Legal Environment of Business	

**Total** **16**

**Semester 4**

MKT 301: Marketing	1
VET 403: Advanced Animal Anesthesia and Surgical Nursing	3
BUS 400: Business Ethics	3
VET 450: Veterinary Technology Capstone	4

**Total** **13**

**Total Credits** **61**

*Penn Foster College reserves the right to change program content and materials when it becomes necessary.*



# Course Descriptions

## Accounting

### **ACC111 Financial Accounting (3 credits)**

This course will provide students with a basic understanding of the principles of Financial Accounting. Topics covered include analyzing transactions; completing the accounting cycle; merchandising businesses; inventories, assets, and liabilities; and corporations, stocks, bonds, and cash flow. PREREQ: None

### **ACC112 Managerial Accounting (3 credits)**

This course provides an introduction to managerial accounting; analysis; C-V-P and management; budgeting and performance evaluation; decentralized operations; differential analysis and product pricing; capital investment analysis; and cost activities. PREREQ: Financial Accounting

### **ACC113 Basic Accounting (3 credits)**

This course meets the needs of students who need to understand accounting language but aren't planning on becoming accountants. Students will learn what accounting information is, what it means, and how it's used. Topics covered include financial statements, return on investment, bookkeeping process, cost accounting, and report systems. PREREQ: None

### **ACC201 Intermediate Accounting 1 (3 credits)**

This course will provide students with the knowledge to apply accounting theory, concepts, and procedures to financial problems. Topics covered include: computing earnings per share; lease transactions; income tax accounting; cash flow information; pension and benefit information; financial statement analysis. PREREQ: Managerial Accounting

### **ACC202 Intermediate Accounting 2 (3 credits)**

This course will provide students with an expansion on materials presented in Intermediate Accounting 1. Topics examined and discussed include: inventories; investments; intangible

assets; current, contingent, and estimated liabilities; premium and discount on long-term debt; stockholder's equity. PREREQ: Intermediate Accounting 1

### **ACC210 Cost Accounting (3 credits)**

Students will be able to use cost data in budgeting and capital planning for various types of manufacturing operations and use a personal computer to perform various accounting functions. Topics covered include timekeeping and payroll procedures; setting overhead rates; accounting for spoiled and defective goods; development of cost analysis; process cost accounting; job-order cost accounting. PREREQ: Managerial Accounting

### **ACC211 Computer Applications in Accounting (3 credits)**

Builds on concepts learned in Financial and Managerial Accounting and covers Sage 50 Accounting. Combines real-world accounting systems and examples with computer-based solutions. The course is a blend of problem-solving, reading, case projects, and computer applications to problems encountered in today's accounting environment. PREREQ: Computer Applications, Financial Accounting, Managerial Accounting

## Allied Health

### **ALH201 Pharmacology (3 credits)**

#### **135 Lecture hours**

Introduces the students to the essentials of drugs and pharmaceuticals. The course covers drug classifications, dosage calculations, mechanisms of action, therapeutic effects, and adverse reactions to drugs commonly used in medical offices. PREREQ: None

### **ALH209 Clinical Procedures Theory 1 (1 credit)**

#### **45 Lecture hours**

Students are introduced to Clinical Procedures Theory. Topics include an overview of the medical assisting profession, healthcare settings and the healthcare team, the history of medicine, therapeutic communication skills, coping skills for the medical assistant, the

therapeutic approach to the patient with a life-threatening illness, legal considerations, ethical considerations emergency procedures and first aid, infection control and medical asepsis, the patient history and documentation, vital signs and measurements, the physical examination, basic pharmacology, the calculation of medications, and dosage and medication administration. PREREQ: Pharmacology, Anatomy and Physiology 1, Anatomy and Physiology 2

### **ALH210 Clinical Procedures Theory** **(3 credits) 135 Lecture hours**

The role of pathogenic organisms in disease; how to control and prevent infection; assessing patients; the three components of patient examination; assessing vital signs; diagnostic tests; treatment procedures; major drug and medication categories. PREREQ: Anatomy and Physiology 1 and 2; Pharmacology

### **ALH211 Clinical Procedures Theory 2** **(2 credits) 90 Lecture hours**

Students will finish the final portion of Clinical Procedures Theory. Topics covered include obstetrics and gynecology, pediatrics, gerontology, male reproductive system, examinations and procedures of body systems, assisting with office/ambulatory surgery, diagnostic imaging, rehabilitation and therapeutic modalities, nutrition in health and disease, electrocardiography, safety and regulatory guidelines in the medical laboratory, introduction to the medical laboratory, phlebotomy, venipuncture, capillary puncture, hematology, urinalysis, basic microbiology, specialty laboratory tests, the medical assistant as an office manager, the medical assistant as a human resource manager, preparing for medical assisting credentials, and employment strategies. PREREQ: Pharmacology, Anatomy and Physiology 1, Anatomy and Physiology 2

### **ALH215 HIPAA Compliance (3 credits)** **135 Lecture hours**

The HIPAA Compliance course gives healthcare professionals and those involved with privacy and security a better understanding of the Health Insurance Portability and Accountability Act as well as the implications of HIPAA legislation on healthcare organizations. Students will learn the

purpose and key features of HIPAA along with those affected by HIPAA, as well as the impact of the privacy rules on the healthcare industry. Students will also learn the implementation of dates for compliance and penalties for noncompliance to HIPAA regulations.

### **ALH225 Healthcare Management (3 credits)**

The Healthcare Management course begins with an overview of management, focusing on the supervisor's role and continuing with decision-making, planning, and organizing. Additional topics include human resources management, labor relations, budgeting, and leadership.

### **ALH280 Practicum in Healthcare Management** **(4 credits)**

A comprehensive overview designed to prepare the Healthcare Management student to perform functions and demonstrate competencies related to healthcare management services in a variety of settings. Students will be tested on healthcare management knowledge, perform project and research work, practice skills, and gain workplace experience in a variety of settings under the supervision of an externship site supervisor.

## **Business**

### **BUS100 Business Orientation (1 credit)**

Introduction to distance learning; study skills and techniques; reading textbooks and study guides; reviewing for examinations. Four basic life goals, individual life goals, and steps needed to fulfill them; similarities between personal financial goals and business goals; determining personal financial goals; setting up a budget; researching, planning, starting up, and maintaining a business. PREREQ: None

### **BUS101 Introduction to Business (3 credits)**

This course outlines the elements of business and the challenges businesses face in a global environment, such as competition and economic factors. You'll learn why accounting, technology and information systems, marketing, and management are essential to starting and growing a business. You'll also learn the basics of managing financial and human resources and the ethical and social responsibilities required of a successful manager. PREREQ: None

**BUS105 Customer Service (1 credit)**

Customer service is presented as an integral part of any career, in terms of understanding what customer service encompasses and why it is essential; recognizing, understanding, and meeting customer needs and communicating with customers, including verbal and nonverbal messages, active listening skills, dealing with hostility, and necessary skills in various mediums such as internet and telephone. PREREQ: None

**BUS110 Principles of Management (3 credits)**

This course familiarizes the student with both the business environment and the manager's role within it. It covers decision-making, planning, organizing, leading, and controlling, as well as developing an ethical perspective. PREREQ: None

**BUS115 Introduction to Supervision and Leadership (1 credit)**

This course introduces the student to effective leadership and interpersonal skills needed to succeed in a supervisory position. This course provides students with an understanding of the significance of the supervisor, including key opportunities available in the industrial sectors. Students will learn the importance of effective communication, problem-solving to overcome obstacles, creating successful working relationships among team members, and the skills required to successfully hire, manage, and terminate employees. PREREQ: Economics 1

**BUS121 Economics 1 (3 credits)**

This course will provide an overview of macroeconomics and the modern market economy. Law of supply and demand, cost of living, monetary systems, international factors, and short-run economic fluctuations will be examined and discussed. PREREQ: None

**BUS122 Economics 2 (3 credits)**

This course will provide an overview of microeconomics and the modern market economy. Supply and demand, the role of government, public sector, tax system design, firm behavior; organization of industry, and labor markets will be examined and discussed. PREREQ: Economics 1

**BUS213 Business Law 1 (3 credits)**

This course is an introduction to the legal environment of business. Topics covered include American court practice and procedure; torts; employment law; international law; environmental law; contract law. PREREQ: None

**BUS214 Business Law 2 (3 credits)**

This course is a continuation of Business Law 1. Topics covered include sales; consumer law; negotiable instruments; personal and real property law; wills and trusts; insurance; secured transactions; bankruptcy; torts and crimes. PREREQ: Business Law 1

**BUS220 Supply Chain Management (3 credits)**

This course teaches the planning and the control of materials that move into, through, and out of stores. It covers transportation planning, inventory control, warehouse management, development of customer service standards, as well as the design and operation of supply and distribution systems. This course also discusses how the internet and information systems support the previous activities. PREREQ: Principles of Management; Economics 1

**BUS310 Merchandising Planning and Buying (3 credits)**

Methods, practices, and operations conducted to promote and sustain certain categories of commercial activity; principles and procedures used in planning, selecting, pricing, and selling goods in retail stores; domestic and foreign market purchasing; assessing product needs. Students will learn merchandising systems, assortment plans, and inventory control methods. PREREQ: Introduction to Business; Mathematics for Business and Finance

**BUS315 Legal Environment of Business (3 credits)**

The nature and sources of law; the U.S. court systems; litigation and alternative methods of dispute resolution; constitutional and administrative law; tort law and product liability; contract law; agency law; business organizations; business ethics and social responsibility; property rights for both personal and real property. PREREQ: None

**BUS330 Risk Management (3 credits)**

This course provides students with a framework for managing the effects of risk and a basic understanding of risk management and insurance. Topics include an introduction to the objective of risk management, general theory of insurance markets, personal insurance issues, employee-employer risk, business risk management, and contracts for risk management. PREREQ: MAT210 Business Statistics

**BUS340 Organizational Behavior (3 credits)**

This course covers management approaches; human decision-making; conflict management; communication in groups; power and influence; organizational environment, structure, and design; and fundamental forces of change. PREREQ: Principles of Management or similar management course

**BUS350 Supervision and Leadership (3 Credits)**

Students will learn supervisory leadership perspectives and practices, as well as the knowledge and skills needed to apply them in contemporary organizations. The course provides perspective on the challenges of guiding and leading a workforce in today's complex society. PREREQ: Essentials of Psychology; Introduction to Sociology

**BUS400 Business Ethics (3 credits)**

This course explores the ethical and moral responsibilities of businesses in a capitalist system. It examines different approaches to ethics and morality, including the principles of egoism, utilitarianism, Kant's categorical imperative, and Rawls's theory of justice. The course also focuses on how different moral philosophies might best be applied to business organizations and their activities. Many examples and case studies are used to explain how the ethical issues facing businesses ultimately affect everyone. PREREQ: Business Law 1 or Legal Environment of Business

**BUS415 Business Research Methods (3 credits)**

This course is an overview of concepts on business research methods covering variables, types of variables, literature review, conceptual framework, research questions, hypothesis,

research design, elements of research design, concepts of measurement, reliability and validity in measurement, survey research methods review, secondary data sources, questionnaire design, qualitative techniques, sampling technique, data collecting, data coding, and data analysis. PREREQ: Intermediate Algebra; Business Statistics; Advanced Composition; Advanced PC Applications

**BUS425 Strategic Business Management (3 credits)**

This course establishes the foundation necessary to understand strategic business management in today's economy. Students will integrate knowledge from this course with skills acquired in previous courses to make sound management decisions. PREREQ: Principles of Management; Corporate Finance; Marketing; Legal Environment of Business

**BUS430 International Business (3 credits)**

This course is an introduction to the opportunities and risk of doing business outside the US. Students will learn about country-market differences, trade and investment patterns, the international- financial environment; issues in business-government relations and strategies for international business are also covered. PREREQ: Introduction to Business; Principles of Management; Marketing; Corporate Finance

**BUS450 Senior Capstone: Business (4 credits)**

Students use real fact patterns, real data, and the expertise they acquired from courses completed throughout their business curriculum to complete two business case projects. Students will estimate the market size and market share required to break even, and in a separate case, they will execute the quantitative analysis of financial data. This course also includes a lab experience designed to expose students to real-world business activities in their community. PREREQ: Business Statistics; Intermediate Algebra; Computer Applications; Managerial Accounting; Business Research Methods

## Civil Engineering

### **CET111 Basic Surveying 1 (3 credits)**

Tapes and accessories; electronic measurements; use of transit and theodolite; adjustment of instruments; angle measurements; trigonometric leveling; error of closure; computation of area by latitudes and departures or planimeter. PREREQ: Foundation Skills in Math

### **CET112 Basic Surveying 2 (3 credits)**

Tangents and horizontal curves; grades and vertical curves; transition curves; field layout of simple, compound, and spiral curves; elevations on vertical curves. PREREQ: Basic Surveying 1

### **CET115 Land Surveying (3 credits)**

Determination of true meridian; latitudes and longitudes; subdivision of townships and sections; legal descriptions. PREREQ: Basic Surveying 2

### **CET120 Concrete (2 credits)**

Production of concrete; design of concrete mixes; test for concrete; field methods in concrete construction. PREREQ: Foundation Skills in Math

### **CET123 Topographic Drawing and Surveying (5 credits)**

Use of drafting instruments; plotting traverses; plotting cross sections and profiles; city and village maps; plane table surveying; topographic maps; methods of control. PREREQ: Basic Surveying 1

### **CET127 Earthwork (1 credit)**

Surveys for determining grade; cross-sectioning; formation of embankments; shrinkage and swell; moving cut to fill mass diagrams. PREREQ: Basic Surveying 2

### **CET223 Geodetic Surveying (3 credits)**

Monuments and markers; triangulation surveys; methods of projection; subdivision of city blocks into lots. PREREQ: Topographic Drawing and Surveying; Land Surveying

### **CET236 Structural Steel Design (3 credits)**

Allowable unit stresses; design of connections; composite design of steel and concrete; design of column base plates. PREREQ: Mechanics of Materials

### **CET239 Reinforced Concrete Design (2 credits)**

Investigation and design of rectangular beams; T-beams; double-reinforced beams, and continuous beams; design of processed concrete beams. PREREQ: Mechanics of Materials

### **CET241 Highway Construction and Design 1 (3 credits)**

Soil studies; subgrades and drainage; location surveys; volume and speed studies; signs. PREREQ: Topographic Drawing and Surveying

### **CET242 Highway Construction and Design 2 (2 credits)**

Stabilized soil-bound surfaces; design of concrete pavements; design of pipe culverts. PREREQ: Basic Surveying 2; Concrete

## Communication

### **COM110 Public Relations 1 (3 credits)**

Public Relations 1 begins by introducing students to the role of public relations writers, including their ethical and legal responsibilities. Some of the general topics covered include persuasion, research skills, the public relations planning process, writing clearly and simply, and using proper grammar, spelling, and punctuation. Specifically, the course covers writing styles and processes for emails, memos, letters, reports, proposals, news releases, broadcasts, ad copy, material for the internet, speeches, newsletters, brochures, magazines, and annual reports. The course concludes with an examination of how to communicate information during a crisis. PREREQ: Advanced Composition

### **COM115 Public Relations 2 (3 credits)**

Public Relations 2 begins with an overview of public relations, including such topics as ethics, professionalism, public relations departments and firms, research techniques, planning and evaluating a public relations program, and the communication process. The course also includes the preparation and handling of news releases, media alerts, and pitch letters. Finally, the course covers topics that affect a public relations employee: conflict management, public opinion, new technologies in public relations, corporate public relations, public relations and the government, global public relations, and public relations for nonprofit organizations. PREREQ: Public Relations 1

# Computer Information Systems

## **CIS235 Structured Systems Analysis (3 credits)**

The system development cycle; information gathering and reporting activities on the analysis phase; interaction of various participants in the systems process. PREREQ: Introduction to Computers; Business Computer Systems and Applications or equivalent

## **CIS240 Systems Design (3 credits)**

Role of the systems analyst in developing business applications; hierarchy charts; IPO; decision tables; structured English. PREREQ: Structured Systems Analysis.

## **CIS245 Structured Systems Analysis and Design (3 credits)**

This course begins with the planning process for software development and then shows the students how to convert the user's business needs into a computer information system. PREREQ: Introduction to Computers; Business Computer Systems and Applications or equivalent.

# Computer Science

## **CSC101 Computer Literacy (3 credits)**

Hardware and software; computer networks; information systems; personal computer systems; legal and ethical dilemmas. PREREQ: None

## **CSC103 Introduction to Computers (3 credits)**

Hardware and software; computer networks; information systems; personal computer systems; legal and ethical dilemmas. Software applications include creating a resume, spreadsheet, and slide presentation. PREREQ: None

## **CSC104 Computer Applications (3 credits) 135 Lecture hours**

Students will learn about PC applications in word processing, spreadsheets, and presentation software, as well as how to create documents, spreadsheets, and presentations. Students will also learn how to integrate the applications. PREREQ: None

## **CSC105 Introduction to Programming (3 credits)**

Examines the basic logic common to all programming languages; shows students how to create their own programs not based on any particular programming language; concentrates on the basic guidelines and best practices for developing good programming skills. PREREQ: Introduction to Computers or equivalent

## **CSC107 Introduction to Microsoft® Windows® (3 credits)**

This course gives the student a complete overview of the Windows® operating system, including an introduction, hands-on applications, managing and supporting tips, and more advanced techniques. PREREQ: Computer Literacy

## **CSC108 Essential Computer Skills (3 Credits)**

This course includes material about internet basics, computer hardware, online library resources, and search engines, as well as PC applications in word processing and spreadsheet software. PREREQ: None

## **CSC110 The Microcomputer and its Application (3 credits)**

The course gives the student an understanding of the fundamentals of PC applications software. Students gain proficiency in word processing, spreadsheets, and presentation software applications. PREREQ: None

## **CSC111 PC Applications (3 credits)**

The course gives the student an understanding of the fundamentals of PC applications software. Students gain proficiency in word processing, spreadsheets, and presentation software applications. PREREQ: None

## **CSC115 Office Applications (1 credit)**

This course will teach you how to use three popular tools from the Microsoft Office Suite—Word, Excel, and PowerPoint. In this course, you'll learn how to use Word to create and edit text documents, insert figures and tables, and format pages for a variety of uses. You'll then learn how to use Excel to organize and format data, including charts, formulas, and more complex tables. Next, you'll learn how to use PowerPoint to create and deliver slide

show presentations. Finally, you'll complete a computer application graded project, which will test the skills acquired in Word, Excel, and PowerPoint. PREREQ: None

### **CSC218 Visual Basic® (3 credits)**

This course takes students through the basics of writing software, to working with data structures, using XAML, and building Windows applications. Students learn debugging, structured error handling, how to build class libraries and register assemblies, programming with SQL Server and ADO.NET, and develop Windows 8 applications. PREREQ: PC Applications or equivalent

### **CSC221 Advanced PC Applications (3 credits)**

Database applications; integrating word processing, spreadsheet, and presentation software applications. PREREQ: PC Applications or equivalent

### **CSC246 Visual C#® (3 credits)**

Building C# applications; input devices and using timers; dialog boxes and menus; adding graphics and ActiveX controls to applications; document interfacing; toolbars, status bars, and working with files; ADO applications, classes, modules, DLLs, and multitasking; ActiveX controls and internet applications. PREREQ: Visual Basic® or equivalent

### **CSC 275 Computer Forensics (3 credits)**

This course teaches how to conduct a high-tech investigation, from acquiring digital evidence to reporting the findings. Coverage includes how to set up a forensics lab, how to acquire the necessary tools, and how to conduct an investigation and subsequent digital analysis. Featured in the textbook are free downloads of several forensics software programs for students to become familiar with the tools of the trade. PREREQ: Visual Basic® or equivalent

## **Construction Technology**

### **BCT110 Introduction to Construction Technology (3 credits)**

This course introduces management and building practices used throughout the construction industry. Site planning and excavating processes are described, followed by construction methods that apply to foundations, steel and wood frames, concrete,

and masonry. Students obtain an overview of the challenges often faced by construction managers, including scheduling, cost-control, contracting process, safety, and productivity improvement. PREREQ: None

### **BCT125 Construction Materials and Methods (3 credits)**

Students will gain a comparative knowledge of material properties and applications in construction. The course provides an overview of materials used in construction; the fundamental principles of structural, physical and long-term performance; material and product manufacturing techniques, and common construction methods. PREREQ: None

### **BCT160 Architectural Drawing (3 credits)**

An introduction to the basic drafting skills required for the development of a set of architectural drawings. Students learn line technique, lettering, dimensioning and symbols, and how these concepts apply to drawings for construction. The course also covers site plans, foundations, walls, wall sections, floors, roof design, stairs, elevations, sections, and construction details. PREREQ: Drafting with AutoCAD®

### **BCT210 Statics/Strengths of Construction Materials (3 credits)**

Students learn the basic principles of vector analysis, equilibrium of force systems, friction, sectional properties, stress/strain, and deformation as they apply to construction materials. Lessons cover the support characteristics of trusses, frames, beams, columns, connections, and combined stresses. Students learn to analyze the integrity of simple structures. PREREQ: Technology Orientation

### **EST215 AutoCAD® Applications – Construction (3 credits)**

Students are presented with a broad introduction into two-dimensional and three-dimensional Computer-Aided Design (CAD) focused on construction-specific applications. Students will use AutoCAD® in hands-on exercises, assignments, and projects. PREREQ: Drafting with AutoCAD®



**BCT220 Building Systems (3 credits)**

This course provides students with technical information related to the mechanical and electrical systems used in various types of buildings. Topics covered include design, installation, and operation of building systems, including HVAC, plumbing, fire-protection, electric, lighting, and communication systems. PREREQ: None

**BCT240 Basic Surveying and Measurement (3 credits)**

This course instructs students on the principles of elementary surveying, including leveling, angle measurement, bearings and azimuths, traversing, topographic mapping, and areas and volumes. Students learn traditional and GNSS (Global Navigational Satellite System) surveying methods. PREREQ: Intermediate Algebra

**BCT250 Codes and Specifications (3 credits)**

Students learn the essentials of construction specifications and how they relate to national, state, and local building codes. The course also provides in-depth coverage of job safety and OSHA regulations as they apply to the modern construction environment. PREREQ: None

**BCT255 Green Building Practices (3 credits)**

Students learn building techniques and practices aimed at reducing the consumption of traditional fossil fuels and energy sources. The course includes focused units on improved insulation practices and materials, alternative energy adaptations for residential and small commercial buildings, and efficiency adaptations to traditional HVAC systems. PREREQ: None

**BCT260 Construction Estimating (3 credits)**

This course covers unit-price cost estimating, quantity takeoff, labor, material, mechanical and electrical systems, equipment unit pricing, and computer-aided estimation applications. Students will also examine bidding strategies, worker and equipment productivity, and value engineering. PREREQ: None

**BCT275 Construction Planning and Control (3 credits)**

In this course, students learn to review and analyze requirements and preparation of construction planning and scheduling. The course covers scheduling techniques,

resource and equipment allocation, time-cost relationships, as well as monitoring and controlling the work progress. Students learn PC applications for scheduling and planning. PREREQ: None

**BCT280 Architectural Design (3 credits)**

Students are introduced to the basic fundamentals of architectural design. Concepts include proportion, relationship of masses, figure, ground, shades, color and symmetry, with emphasis on the physical properties of architectural design. Students will also learn the basic relationships of spaces and specific program requirements governing the creation of these spaces. PREREQ: Drafting with AutoCAD®

## Criminal Justice

**CJS100 Criminal Justice Orientation (1 credit)**

Discusses the strategies for completing the criminal justice studies program as an independent learner, as well as the role of criminal justice in society. PREREQ: None

**CJS101 Introduction to Criminal Justice (3 credits)**

This course examines the purpose and functions of the criminal justice system with attention paid to the police, courts, and corrections on the local, state, and federal levels. It explains the limitations of a system initially designed to respond to the needs of Colonial America. The course also focuses on individuals' involvement in the criminal justice system, as citizens and as actors and how that involvement affects the system. PREREQ: None

**CJS105 Ethics in Criminal Justice (3 credits)**

Begins the study of ethics from the larger issues of what constitutes morality and moral behavior; looks at how ethics develop; discusses the issues of ethics and specific aspects of criminal justice, including justice, law enforcement, courts, punishment and corrections, and management; reviews the consideration of professionalism and of ethics for everyone in society. PREREQ: Introduction to Criminal Justice

**CJS120 Police Studies (3 credits)**

Looks at the role of policing in America; discusses the existence of a police subculture, the role of management, and the nature of patrolling; considers different strategies for investigating and solving problems; includes a discussion about ethics, civil liability, and possible directions for policing in the future. PREREQ: Introduction to Criminal Justice; Criminology

**CJS123 Courts (3 credits)**

This course looks at the relationship among the judiciary, defense, and prosecution involved in the United States Courts system. Your studies start with an overview of the basic structures of courts. You'll also look to the successive steps involved in prosecutions and cover topics such as plea bargains, trials, juries, sentencing, and appeals. PREREQ: Introduction to Criminal Justice

**CJS238 Criminal Law (3 credits)**

Reviews the history of criminal law, from its start in the common law (and the principles of applying case law) to its contemporary forms of statutory and regulatory law; looks at crimes and their underlying elements, thereby teaching what a prosecutor needs to show, beyond a reasonable doubt, to secure a conviction; considers the traditional form of criminal law as well as strict liability and victimless crimes; discusses range of criminal offenses, such as inchoate and property-based crimes, to crimes of violence and administrative crimes, and of the excuses, justifications, and defenses to prosecution of such activities. PREREQ: Introduction to Criminal Justice; Courts

**CJS130 Police Management (3 credits)**

Considers the development of the police subculture and how that has shaped different strategies for police management; proceeds to examine those basic organizational concepts unique to policing; looks at the different responsibilities and how to satisfy those responsibilities within the context of policing; studies the image that collective bargaining has on management of police. PREREQ: Introduction to Criminal Justice; Ethics in Criminal Justice; Police Studies

**CJS135 Introduction to Private Security (3 credits)**

Examines the history and development of private security; reviews the state of private security today, including, but not limited to, liability and the relationship between public and private security; focuses on issues regarding prevention and loss control; looks at investigation and prosecution; discusses trends in security, including the contemporary development of security systems and approaches toward security in light of recent events. PREREQ: Introduction to Criminal Justice

**CJS203 Criminal Procedures (3 credits)**

Examines issues involved in the search and arrest of individuals, as well as issues dealing with self-incrimination and access to counsel through the lens of the Bill of Rights protections that focus on prosecution; presents the rationale underlying decisions like the Miranda warning and the Terry stop-and-frisk. PREREQ: Introduction to Criminal Justice; Police Studies; Courts; Criminal Law

**CJS205 Juveniles and the Legal Process (3 credits)**

Considers the difference in mission and goals between juvenile and nonjuvenile courts; focuses on how this court's different mission reflects society's views towards the care and management of juveniles; looks at situations where juveniles can and do face the possibility of prosecution in traditional courts and looks at the roles that different actors can play in processing juveniles; it then considers how many of the new issues a society faces first come to the attention of society through juvenile court proceedings. PREREQ: Introduction to Criminal Justice; Courts; Criminal Law

**CJS210 Crime Scene Investigation Basics (3 credits)**

This course provides an understanding of the scientific theory as well as the actual practices and techniques used to process a crime scene. The student will learn how crime scene professionals protect themselves and the evidence at a crime scene and the different roles law enforcement professionals execute at the scene of a crime. The course also describes the many types of evidence and how evidence is collected and secured before it is processed by a crime lab. PREREQ: Police Studies

**CJS211 Correctional Institutions (3 credits)**

Focuses on what the public generally believes is the most common punishment: incarceration in a correctional institution; presents the early attempts at rehabilitating offenders in secure, custodial facilities; focuses on the different types of correctional facilities that have developed, with an eye towards how issues of safety can literally shape the facility; considers issues relating to the management and operation of such facilities; explains the Supreme Court's philosophy towards "prisoners' rights" in the context of issues, such as access to counsel; looks to how treatment strategies differ based upon the nature and needs of certain groups. PREREQ: Introduction to Criminal Justice; Courts; Criminal Law

**CJS215 Terrorism (3 credits)**

Discusses the most pressing topic for law enforcement: terrorism; reviews some of the theories advanced to account for acts of terror; considers history and how some groups have used acts of terror to accomplish their goals; looks at foreign and domestic acts of terror and the political agendas of those engaged in such acts; and looks to pressing issues, such as the forms that acts of terror can take. PREREQ: Police Studies

**CJS220 Organized Crime (3 credits)**

Course opens with a consideration of how organized crime has developed and the structure of organized crime; looks at the different types of criminal activity typical to organized crime; reviews international organized crime as the principles underlying organized crime would naturally lead to expansion. Course closes with a consideration of the tools and means available to law enforcement to battle organized crime. Each chapter includes links to internet sites where students can go to find more information on the subject matter covered in the chapter. PREREQ: None

**CJS225 White Collar Crime (3 credits)**

Presents the distinctions between crimes of violence and property-based crimes; specifies what constitutes white collar crime; explores how criminal activity often causes more damage to society than do crimes of violence; looks at the laws involved in prosecuting such crimes; and how to detect and gather evidence of such crimes. Also looks at corporate crime and political crime. PREREQ: Courts; Criminal Law

**CJS230 Criminalistics (3 credits)**

Focuses on forensic science and its application during investigations; looks at the range of types of evidence present and considers the methods for analyzing that evidence; covers the gamut of physical evidence as well as nonphysical evidence, such as evidence on the internet. PREREQ: Criminology

**CJS235 Multicultural Law Enforcement (3 credits)**

Provides a comprehensive review of the impact that race, gender, and ethnicity have on criminal justice; includes research on police practices, sentencing, and corrections, with attention paid to racial profiling and how certain ethnic groups receive disparate treatment; discusses how discrimination affects criminal justice. PREREQ: Police Studies

**CJS238 Criminal Law (3 credits)**

With this course, you'll review the history of criminal law, from its start in the common law (and the principles of applying case law) to its contemporary forms of statutory and regulatory law. You'll look at crimes and their underlying elements, consider what a prosecutor needs to show in order to secure a conviction beyond a reasonable doubt, examine the traditional form of criminal law as well as strict liability and victimless crimes, discuss a range of criminal offenses, such as inchoate and property-based crimes, crimes of violence and administrative crimes, and consider the excuses, justifications, and defenses to the prosecution of such activities.

**CJS245 Security and Loss Prevention (3 credits)**

Begins with a review of issues involving private security systems and then looks at zones of protection, that theoretical area between private and public security issues; discusses issues involving risk management and loss control; considers principles of crime prevention involving a threat environment; considers issues relating to legal aspects of private security. PREREQ: Introduction to Private Security

**CJS255 Computer-Based Crime (3 credits)**

Begins with a review of issues involving information, security, and the privacy of information; and proceeds to examine a broadening range of additional criminal threats, based upon actual cases. Includes a consideration of cybercrime, systems abuse,

and the hacker culture; looks to issues of prevention and information security, with an emphasis on the need to take immediate steps against this likely criminal activity. PREREQ: Security and Loss Prevention

### **CJS260 Crisis Intervention (3 credits)**

Presents the latest research, theories, and techniques of what to do in a crisis, along with case material based on real crisis situations; presents the skills and strategies needed to take crisis intervention theory and technique out of the classroom and onto the street; details a six-step model to give practitioners a systematic way of dealing with people in crisis (Defining the Problem, Ensuring Client Safety, Providing Support, Examining Alternatives, Making Plans, and Obtaining Commitment). Throughout the textbook, the model is applied to many different crisis situations, such as suicide, domestic violence, sexual assault, addiction, post-traumatic stress disorder, and school violence. PREREQ: Police Studies

### **CJS265 Security Management (3 credits)**

Examines the range of issues involved in security management across disciplines and around the world; includes a consideration of industrial security in light of business concerns; examines the context for security and legal aspects of security management and prevention; presents specific security applications and the investigational intelligence gathering used to assess security systems. PREREQ: Introduction to Private Security; Security and Loss Prevention

### **CJS308 Criminology (3 credits)**

Criminology is the discipline that studies crime and criminal behavior. In this course, you'll study the causes of crime, reactions, and different forms of criminal behavior. Criminology is focused on the study of the phenomena of crime and criminality. The study of crime (criminology) is interesting because it's a topic that relates to everyone. Various theories explain the causes of crime. As you read the textbook, you'll be able to see the many interrelationships of the criminal enterprise, the criminal justice system, and the study of the reasons for criminality. At the end of this course you'll have a far greater, deeper understanding of the intricacies of crime. PREREQ: Introduction to Criminal Justice

### **CJS307 Victimology (3 credits)**

Looks to how criminal justice has responded to the heightened interest of society paying more attention to the victims of crime in the last few decades; presents the laws designed to support victims, including but not limited to programs and services; examines the growing Victim Rights Movement; explores a range of kinds of victimization, its origins, and will consider what segments of society have been most vulnerable to certain crimes. PREREQ: Introduction to Criminal Justice; Ethics in Criminal Justice; Criminal Law

### **CJS350 Community Corrections (3 credits)**

Looks at the role that community corrections plays in the criminal justice process; deals largely with corrections outside of prison and includes issues involving diversion and pretrial release; teaches the evolution of the field, the range and type of different community correction options, and future trends for the field. PREREQ: Police Studies

### **CJS400 Administration of Justice (3 Credits)**

This course will focus on the most common agencies involved in running the criminal justice system on both the state and federal levels. The organization of each agency will be examined with a detailed review of its function, administrative procedures, personnel, planning, budgeting, and record keeping. PREREQ: Criminology; Introduction to Public Policy; Criminal Law

### **CJS415 Evidence (3 credits)**

This course examines the fundamental rules of evidence from inception, preservation, and admission at trial. All types of evidence will be studied including the historical development of the hearsay and exclusionary rules, together with their permitted exceptions. PREREQ: Criminal Law; Criminology

### **CJS450 Senior Capstone: Criminal Justice (4 Credits)**

In order to provide the students with an understanding of the practical application of the criminal justice system in their respective jurisdictions, they will undertake a comprehensive research project. The research project will be based on a topic assigned by the instructor and allow the students to conduct detailed research and writing in a relevant area of the law of their jurisdictions. The research

project will be reviewed and supervised from inception through final submission. PREREQ: Advanced Composition; Criminology; Research and Statistics; Legal Research and Writing

## Early Childhood Education

### **ECE100 Orientation to Early Childhood Education (1 credit)**

This course provides a snapshot of contemporary child day care and the need for professionals, as well as strategies for completing the Early Childhood Education Program as an independent learner. PREREQ: None

### **ECE107 Play in the Lives of Young Children (3 credits)**

A study of play that provides current perspectives on culture and gender differences in play through a blend of research, theory, and practical applications. Topics include brain research and information on how and why play is important for children. The course attempts to illustrate the need to understand play and children with disabilities, integrate play into classroom curricula, and be aware of special places for play. PREREQ: Fundamentals of Early Childhood Education

### **ECE111 Fundamentals of Early Childhood Education (3 credits)**

A survey course which discusses the similarities and differences in young children, the components of quality early childhood education programs, and the role of the professional early childhood educator. PREREQ: None

### **ECE120 Infant and Toddler Care (3 credits)**

The course focuses on trust and mutual respect as the basic building blocks of all future development. Infants who can trust that they'll be cared for and who are treated with respect and love develop into healthy, curious, affectionate toddlers. PREREQ: Orientation to Early Childhood Education; Child Growth and Development

### **ECE130 Health, Safety, and Nutrition for the Young Child (3 credits)**

This course presents information on the importance of health, safety, and nutrition as crucial factors in the development of young children. Provides strategies for the monitoring

of standards in the care environment and development of good habits in young children. PREREQ: None

### **ECE160 Cultural Diversity in the Early Childhood Program (3 credits)**

This course focuses on how cultural influences affect professional practices and the children and families educators interact with. The major focus is on the areas of language and communication, social skills, school readiness, and emergent literacy. PREREQ: Fundamentals of Early Childhood Education; Curriculum for Early Childhood Education

### **ECE203 Working with Children with Special Needs (3 credits)**

This course is designed to give the student a broad overview of special education, including research and laws that authorize and fund early education and preschool special education programs. Content also includes the design of buildings, rooms, and outdoor facilities to accommodate children with special needs, as well as the use of technology to enhance the special education environment. PREREQ: Orientation to Early Childhood Education; Child Growth and Development

### **ECE210 Child, Family, and Community (3 credits)**

This course serves as a guide for students of early childhood education to the body of current research on interactions between families, schools, and communities. PREREQ: None

### **ECE212 Guidance in Early Childhood Education (3 credits)**

Guidance is the use of positive strategies to teach children the skills they need to succeed by helping them solve problems and handle confusing emotions as well as teaching them developmentally appropriate expectations. This course will explore the many ways that teachers can work with children and families, using effective guidance strategies in a variety of settings. PREREQ: Fundamentals of Early Childhood Education; Curriculum for Early Childhood Education.

**ECE213 Art, Music, and Movement (3 credits)**

This course explores the ideas of art, music, and movement and their roles within a child's development. By tailoring teaching strategies, assessment techniques, and environments to the creative needs of students, teachers reach one of the most important goals of teaching: to make learning fun. PREREQ: Fundamentals of Early Childhood Education; Curriculum for Early Childhood Education

**ECE215 Curriculum for Early Childhood Education (3 credits)**

Defines and explores the fundamental components of the early childhood curriculum, including creativity, sensory experience, curiosity, exploration and discovery, growth in literacy, and concepts of mathematics, science, and social science. PREREQ: Fundamentals of Early Childhood Education

**ECE216 Language and Literacy Development in Young Children (3 credits)**

This course is designed to provide early childhood education professionals with a new approach to teaching early literacy skills with a multicultural perspective. The multicultural approach to literacy presented in this course provides an understanding of how children develop literacy skills and cultural awareness. The four major components of communication—speaking, listening, writing, and reading—are fully explored with each age group. PREREQ: None

**ECE217 Developing Math and Science Skills in Young Children (3 credits)**

This course emphasizes the integration of mathematics and science with the other content areas for young children from preschool through the primary grades. It follows the guidelines of the National Association for the Education of Young Children. Developmentally appropriate assessment is explained. PREREQ: Fundamentals of Early Childhood Education and Curriculum for Early Childhood Education

**ECE220 Child Growth and Development (3 credits)**

This course presents a variety of theoretical viewpoints to provide students with a well-balanced view of a child's developmental process. Current studies and research provide

students with an understanding of the principal topics of child psychology, as well as recent trends in socially relevant problem areas. PREREQ: None

**ECE221 Administration of an Early Childhood Education Center (3 credits)**

A comprehensive view of the procedures involved in establishing and administering a child care education program. Administrators will need to have the knowledge, skills, and dispositions to work with communities, families, and staff in providing high-quality early childhood education. PREREQ: None

**ECE223 Working with Preschoolers (3 credits)**

This course is packed with ideas that will help early childhood professionals to establish an effective and developmentally appropriate learning environment built with interest centers that allow for individualization. PREREQ: Orientation to Early Childhood Education, Child Growth and Development

**ECE225 Family Child Care (3 credits)**

This course includes the practical consideration of issues and responsibilities in providing family child care for infants and young children. Topics include developmental domains, developmentally appropriate practices, curriculum and creating a successful environment. PREREQ: Orientation to Early Childhood Education; Child Growth and Development

**ECE230 Field Experience (6 credits)**

During the fourth semester, students will spend 300 hours in an approved early childhood center that includes infants, toddlers, and preschoolers in order to observe and participate in the direct application of theory. Students will have specific assignments during this time. They will have a maximum of six months to complete the field experience. PREREQ: Students must be enrolled in Semester Four of the Early Childhood Education Program

**ECE240 Assessment in Early Childhood Education (3 credits)**

In this course, students will learn the purpose of observation and assessment in the early childhood classroom; describe the process of

collecting and recording observations; foster child development in each learning area and share their observations with the children's family members. PREREQ: None

## Electricity and Electronics

### **EET101 Fundamentals of Electricity**

**(3 credits)**

This course introduces to the basic concepts, terminology, and applications relating to electricity such as circuits, capacitors and inductors, magnets and electromagnets, conductors, and cells and batteries. It also covers motors and generators, alternating current, alternators, and the overall electrical system. PREREQ: None

### **EET103 Fundamentals of Electronics**

**(3 credits)**

This course introduces the basic concepts, terminology, and applications relating to electronics such as rectification, basic semiconductor components, switching devices, electron tubes, optoelectronics, and fiber-optic components. The course also covers electronic hardware, power supplies, amplifiers, oscillators, and modulation and demodulation. PREREQ: Fundamentals of Electricity

### **EET105 Electrical/Electronic Measurements and Instruments (3 credits)**

Transformer fundamentals; checking simple circuits; troubleshooting with basic meters; how a voltmeter works; how an ammeter works; AC measuring instruments; multi-purpose test instruments; oscilloscopes; component testers; digital test equipment. PREREQ: Fundamentals of Electricity; Fundamentals of Electronics

### **EET115 Electrical-Electronics Theory**

**(3 credits)**

This course provides a foundation in electrical and electronics terminology, theory, and concepts essential for students in a wide range of technology programs. Students learn the basic principles of electricity and the fundamental applications of Ohm's law to circuit analysis, as well as magnetism and electromagnetism, and alternating current theory and circuit applications. The student also

learns theory and applications of most basic components, devices, and machines, including capacitors, inductors, batteries, DC and AC motors, conductors, insulators, and basic rectification devices. PREREQ: None

### **EET160 Introduction to Microprocessor**

**(2 credits)**

Introduction to computers; introduction to microprocessor applications; microprocessor basics. PREREQ: None

### **EET182 Electronic Circuits (3 credits)**

Electronic systems; electronic devices and amplifications; audio and RF circuits; oscillators; feedback; electronic power supply systems; industrial receivers, transmitters and video systems; servo and control systems; pulse and logic circuits; troubleshooting electronic equipment and systems; logical troubleshooting methods; measuring techniques; interpreting data and results. PREREQ: Fundamentals of Electronics

### **EET210 Electric Motors and Controls (3 credits)**

Principles of generator and motor operation; principles of induction motors and synchronous motors; performance and speed control; principles of motor control systems; solid-state drive systems; SCRs as AC to DC converters; installation and maintenance of drive systems. PREREQ: Fundamentals of Electricity; Fundamentals of Electronics

### **EET212 Electrical Equipment (3 credits)**

Sizing and selecting conductors, raceways, devices, and controls incorporated in electrical systems; identifying key characteristics of electrical equipment, including circuit protection, outlets, and control devices; creating ladder logic relay diagrams. PREREQ: None

### **EET214 Interpreting the National Electric Code® (3 credits)**

Locating the applicable code section to identify specific electrical installation requirements; interpreting and applying code specifications during the electrical-system design process; evaluating sample installations to ensure code compliance. PREREQ: None

**EET215 Electronic Process Control (3 credits)**

Students will learn the basics of electronic control technology, the fundamentals of motor-control theory, process control and instrumentation, and applications of sensors, programmable controls, and motion controls. PREREQ: Fundamentals of Electricity, Fundamentals of Electronics

**EET216 Electrical Installations (3 credits)**

How electricity is generated and distributed; interpreting blueprints that represent various types of electrical systems; evaluating industrial electrical system requirements; specifying the correct equipment, conductor type and capacity for electrical systems; the role of each major component in a utility's electrical distribution system; the basic design characteristics of underground distribution systems. PREREQ: Fundamentals of Electricity

**EET218 Basic Industrial Computer Systems (3 credits)**

Programmable controllers found in motor-control and other industrial systems; hexadecimal and binary number systems; basic commands for PLCs; the role of computers in telecommunications systems; an introduction to common computer network installations, their key components, and the role they play. PREREQ: Fundamentals of Electronics

**EET221 Pulse Circuits (3 credits)**

Pulse circuits; pulse techniques; pulse generators; timing and synchronization; troubleshooting pulse circuits. PREREQ: Fundamentals of Electronics

**EET222 Logic Circuits (3 credits)**

Logic devices and diagrams; logic families; troubleshooting logic circuits. PREREQ: Fundamentals of Electronics

**EET233 Telecommunications 1 (3 credits)**

History and impact of telecommunications technology; transmission and reception of amplitude modulated signals; frequency modulation technology; single-sideband technology; telephone technology; network systems; digital communications coding and transmission. PREREQ: Fundamentals of Electronics

**EET234 Telecommunications 2 (3 credits)**

Design of transmission lines; wave propagation; antennas; radar systems; microwave communications systems; laser communications; fiber optic technology. PREREQ: Fundamentals of Electronics

**EET235 Digital Electronics (3 credits)**

Digital Electronics provides in-depth coverage of number and logic systems; the essentials of Boolean algebra, including OR gate applications, adders and collections gates, flip-flops and shift registers; counting and timing circuits, including D/A and A/D conversions and the application of these concepts to modern circuit designs. PREREQ: Fundamentals of Electricity, Fundamentals of Electronics

**EET236 Power Plant Operations (3 credits)**

Primary operating systems of coal- or natural gas-fired steam power plant; fundamental science behind power generation; fuel flow paths; water treatment systems; steam flow paths; boiler, station electrical power, and other auxiliary equipment. PREREQ: Fundamentals of Electronics

**EET300 Drafting Electrical and Electronic Schematics (3 credits)**

In this course, you'll learn basic skills for DC theory and AC theory related to circuits, learn the electrical measurement skills needed to build a circuit, as well as learn how to create schematic drawings using AutoCAD.

## Engineering Science Technology

**EET100 Introduction to Technical Drawings (3 Credits)**

This course provides students with an overview of visual communication skills necessary to successfully complete the wide range of courses in technology programs that require learning to read and interpret technical drawings. Students learn print reading, interpretation of symbols and abbreviations, dimensioning, tolerancing, and the application of these skills to actual print reading. The course also contains an overview of computer-aided drawing and its role in modern technology.



### **EST110 Manufacturing Materials and Practices (3 credits)**

This course covers a comprehensive collection of manufacturing and materials processing techniques. Students learn the historical perspectives and basic science of manufacturing and its related materials, specific manufacturing methods as they are applied to specific materials, and the theory of the automation of today's manufacturing environment, productivity, and quality improvement systems. PREREQ: None

### **EST200 Fluid Power (3 credits)**

This course is a comprehensive overview of hydraulics and pneumatics, including the basic scientific principles and concepts necessary for understanding the operation and applications of hydraulic and pneumatic components and systems. Students learn power system controls, system schematics, and essential troubleshooting practices. PREREQ: None

### **EST210 AutoCAD® Applications – Engineering Technology (3 credits)**

Principles of generator and motor operation; principles of induction motors and synchronous motors; performance and speed control; principles of motor control systems; solid-state drive systems; SCRs as AC to DC converters; installation and maintenance of drive systems. PREREQ: None

### **EST220 AutoCAD® Applications – Electrical/Electronics (3 credits)**

Students are presented with a broad introduction into two-dimensional and three-dimensional computer-aided design (CAD) focused on electrical/electronics specific applications. Students will use AutoCad® in hands-on exercises, assignments, and projects. PREREQ: Drafting with AutoCAD®

## **English**

### **ENG100 English Composition (3 credits) 135 Lecture hours**

This course teaches the skills and techniques of effectively developing, drafting, and revising college-level essays toward a specific purpose and audience: active reading, prewriting strategies, sentence and paragraph structure, thesis statements, varied patterns of

development (such as illustration, comparison and contrast, and classification), critical reading toward revision of structure and organization, editing for standard written conventions, and use and documentation of outside sources. Students submit two prewriting assignments and three essays (process analysis, comparison and contrast, and argumentation). PREREQ: None

### **ENG101 Foundation Skills in Writing (3 Credits)**

This course provides an overview of writing styles for technology applications. Students will review basic grammar, including parts of speech, active and passive voices, sentence structure, and paragraph construction. The course also includes practical information on writing memos and emails and organizing material. PREREQ: None

### **ILS103 Information Literacy (formerly ENG 103) (1 credit) 45 Lecture hours**

This course introduces students to the techniques and strategies necessary to research successfully in a cyber environment. Topics include the need for information literacy and how to formulate a search statement, navigate online search engines, cite sources, and organize and use information honestly and responsibly. PREREQ: None

### **ENG115 Introduction to Literature (3 credits) 135 Lecture hours**

This course will allow you to develop your critical thinking skills and broaden your knowledge of the main genres of literature—fiction, poetry, and drama. PREREQ: None

### **ENG121 Business and Technical Writing (3 credits)**

This course provides an introduction to the various methods of organizing material for a professional setting. Students will compose business documents using the ABC method. These include: memos, emails, outlines, reports and proposals, descriptions, and organizing materials. Students also work on honing their grammar skills. PREREQ: None

### **ENG122 Technical Writing (3 credits)**

Specialized training is offered in writing of proposals, reports, instructions, letters, abstracts, résumés, and more. PREREQ: None

**ENG124 Applied Research Skills (2 credits)**

Directed research on topics related to employment searches. Access to the internet is required. PREREQ: None

**ENG200 Speech (3 Credits)**

This course provides students with a foundation in the basic concepts of public speaking. Students will learn how to research, organize, and write effective speeches; incorporate presentation aids; and rehearse and deliver speeches effectively. Students will prepare, rehearse, record, and submit speeches in a number of rhetorical styles to be graded. PREREQ: None

**ENG300 Advanced Composition (3 Credits)**

Course begins with an introduction on how to plan a paper with sources, find sources, take notes, and write a paper; students are guided through the processes as they write a literary analysis, an extended definition, an analysis of a short story, an argumentation essay, and a final paper. PREREQ: English Composition

## Fashion

**FSH101 Introduction to the Fashion Industry (3 credits)**

Traces the development of fashion and the fashion industry; shows how consumer demand affects fashion marketing; explains fashion change and consumer acceptance; covers market research and analysis; traces the development, production, and marketing of raw materials; covers international fashion centers as well as retailing, merchandising, and marketing. PREREQ: None

**FSH110 History of Fashion (3 credits)**

This course presents the history of costume in the West. Beginning with ancient times, it covers the dress of each era in the context of historical events, societal values, and technology that influenced clothing and its production, how the organization and function of the fashion industry changed as it became more complex is also covered. PREREQ: None

**FSH120 Introduction to Textiles (3 credits)**

Introduces students to textiles in a non-technical way; covers laws and regulations of the textile industry; identifies yarns, fabric formation, coloration, and finishes; examines the properties of fibers. PREREQ: Introduction to the Fashion Industry; Color Theory

**FSH205 Fashion Promotion (3 credits)**

Students will learn the process of promotion, as well as the tools available for creating successful campaigns. Emphasis is on the changing nature of promotion in a global marketplace; promotion strategies and techniques, personal and non-personal; covers the role and organizational structure of promotion and advertising and the creative elements involved. PREREQ: Introduction to the Fashion Industry; Marketing

**FSH220 Product Development (3 credits)**

This course takes the students through the preproduction processes of apparel product development. Students will learn how to coordinate planning, forecasting, fabricating, developing silhouettes and specifications, pricing, and sourcing. Also covers the evolving partnerships among textile suppliers, product developers, manufacturers, and retailers. PREREQ: Introduction to the Fashion Industry

## Finance

**FIN101 Financial Management (3 credits)**

This course will introduce students to the world of finance, including financial concepts, instruments, and financial decision making. Topics covered include financial assets; investing in long-term assets; capital structure and dividend policy; financial planning and working capital management. PREREQ: None

**FIN210 Personal Financial Management (3 credits)**

This course will introduce students to the fundamental concepts and importance of personal financial management, including analysis and management of personal assets and financial instruments. PREREQ: None

### **FIN305 Securities and Investments (3 credits)**

In this course, you'll gain an understanding of the steps in making investment decisions, the nature of securities and markets, how technical analysis is performed, and how to set up a portfolio. PREREQ: None

### **FIN310 Corporate Finance (3 Credits)**

This course addresses one of the most important components of every business operation — financial decision-making. All business decisions have some financial implications, either directly or indirectly. Many of the financial concepts addressed in this course arise and may be applied to personal financial and economic decisions. It is very important, therefore, to develop a broad, basic understanding of the study of finance and corporate finance. PREREQ: Mathematics for Business and Finance

## **Graphic Design**

### **GRD101 Graphic Design Orientation (1 credit)**

The Graphic Design Orientation course discusses the computer as an artistic medium and the tools of computer art, as well as the strategies for completing the graphic design technology course as an independent learner. PREREQ: None

### **GRD105 Color Theory (3 credits)**

Color Theory covers the analysis of the dynamic interaction of color and its implications for designers and artists. This course also covers the physics of color, colored light, colored pigments, and the color wheel. Students are introduced to basic color principles, industry terminology, and Johannes Itten's color theory and applications, with an emphasis on manipulating color. PREREQ: Graphic Design Orientation

### **GRD110 Introduction to Graphic Design (3 credits)**

Introduction to Graphic Design covers the basics of design and what distinguishes good design from poor design. This course focuses on the different components used in design, such as the four basic design principles, color relationships, essential aspects of typography,

including contrasts and categories, and incorporating proximity, alignment, repetition, contrast, color, and type into a design. It also provides tips and tricks on how to create various pieces. PREREQ: Graphic Design Orientation

### **GRD115 Graphic Design and Production (Illustrator®) (3 credits)**

This course places emphasis on the conceptualization of computer illustration techniques using Illustrator® and its implementation in page layout. PREREQ: Graphic Design Orientation; Color Theory; Introduction to Graphic Design

### **GRD130 Photo Image Editing 1 (Photoshop®) (3 credits)**

Photo Image Editing 1 begins coverage of Adobe® Photoshop® in regard to the production of print and web-based graphics. Students learn how to use Photoshop® software and apply smart design principles to multimedia products such as print brochures, dynamic graphics, animation, websites, video, and interactive CD-ROM content. PREREQ: Graphic Design Orientation; Color Theory; Introduction to Graphic Design

### **GRD135 Photo Image Editing 2 (3 credits)**

Photo Image Editing 2 focuses on visual communication through diverse theme-based projects where issues of representation and meaning production are emphasized. It also addresses main design notions such as visual organization, information hierarchy, and typography. PREREQ: Graphic Design Orientation; Introduction to Graphic Design; Photo Image Editing 1

### **GRD201 Typography (3 credits)**

Typography is an exploration of different components of type, typefaces, and their identification, which are legibility, visual organization, proportion, and weight. When and where, procedures, and methods for use in print and web-based graphic creations. PREREQ: Introduction to Graphic Design; Photo Image Editing 2

### **GRD205 Electronic Publishing (3 credits)**

The Electronic Publishing course focuses on the integration of text and graphics using desktop publishing software. The student develops digital design skills. PREREQ: Introduction to Graphic Design; Photo Image Editing 2; Typography

### **GRD208 Electronic Publishing Projects (3 credits)**

In this advanced-level desktop publishing course, students will examine the page-design tools in-depth, thereby improving their production skills. Students will create content for cross-media publishing, as well as create an interactive and dynamic web page. PREREQ: Graphic Design and Production; Photo Image Editing 1; Electronic Publishing

### **GRD212 Corporate Design (3 credits)**

Corporate Design explores the development of corporate communications and identity programs. Topics covered are trademarks, branding, logo design, brochure design, and online presence design. PREREQ: Introduction to Graphic Design; Color Theory; Photo Image Editing 2; Typography

### **GRD220 Web Design (3 credits)**

Web Design teaches students about creating web graphics using Photoshop.® Students create graphics for use in web design and other web-based projects by completing hands-on and case projects and creating professional-level web graphics. PREREQ: Photo Image Editing 1; HTML Coding

### **GRD225 Portfolio Development (3 credits)**

Portfolio Development covers the process of developing and maintaining an electronic portfolio. Topics covered are the preparation and organization of graphic creations, such as logos, websites, and brochures. This course culminates in the presentation of an electronic portfolio utilizing graphics created throughout this course. PREREQ: Introduction to Graphic Design, Photo Image Editing 1, and Electronic Publishing

## **Health Information Technology**

### **HIT100 Introduction to Allied Health (1 credit) 45 Lecture hours**

This course is designed to provide a discussion of strategies for completing the Allied Health programs as an independent learner. In addition, it gives an introduction to healthcare, the allied health industry, and the role that allied health professionals play in that industry. Focus is on the different elements and jobs in the allied health field. The course also provides an overview of the history of medicine and documentation, healthcare reimbursement, technology in healthcare, important professional skills, and professional organizations helpful to allied health professionals. PREREQ: None

### **HIT105 Law and Ethics in Medicine (3 credits) 135 Lecture hours**

Legal and ethical issues in the delivery of healthcare are presented. A grounding in the parts of tort and contract law that affect healthcare delivery is set forth along with broad ideas concerning the functioning of the legal system. Special attention is given to confidentiality, privileged communications, informed consent, the elements of and defenses against malpractice, legal and practical issues commonly encountered by medical assistants, end-of-life and beginning-of-life legal and ethical issues, and the effect of managed care on ethical issues faced by healthcare practitioners. PREREQ: None

### **HIT107 Medical Terminology (3 credits) 135 Lecture hours**

The development of a vocabulary used in medicine by acquiring skills to pronounce, define, and spell word terms. Students will analyze and interpret medical reports related to specific body systems. PREREQ: None

### **HIT109 Confidentiality of Health Information (3 credits) 135 Lecture hours**

Ethical and legal rules concerning the confidentiality of health information is presented with particular emphasis on the Health Insurance Portability and Accountability Act. Background material will include operation of the legal system and principles of legal liability. PREREQ: Law and Ethics in Medicine

### **HIT113 Medical Information Management and Office Practice (3 credits) 135 Lecture hours**

This course introduces students to the management of information within a healthcare setting. The course focuses on preparing, correcting, and filing medical records, as well as communicating with others inside and outside of a medical facility. It also covers healthcare delivery systems, information and communication technologies, and data storage, retrieval, and security. PREREQ: Introduction to Health Information Management, Medical Terminology, Law and Ethics in Medicine, The Confidentiality of Health Information

### **HIT115 Reimbursement Methodologies (3 credits) 45 Lecture hours**

This course is designed to introduce the health information technology student to major reimbursement systems in the United States. Focus is on prospective payment systems, third-party payers, and billing and insurance procedures. The course also covers additional information including prepaid health plans, fee-for-service methodologies, chargemasters, fee schedules, and managed care. PREREQ: None

### **HIT130 Electronic Medical Records (3 credits)**

The Electronic Medical Records course provides a basic overview on how to successfully manage electronic medical records (EMRs) in different healthcare settings. Students will learn EMR concepts, terminology, regulations, and procedures, and receive hands-on training using electronic medical record software. PREREQ: None

### **HIT201 Quality (2 credits) Management/Performance Improvement**

This course is designed to introduce the health information technology student to principles of clinical quality management and performance improvement in the healthcare industry. The focus is on standards and implementation of quality programs and principals and concepts of performance improvement. The course also covers additional areas such as utilization management, risk management, and tools and techniques used in performance improvement and quality management. PREREQ: Medical Information Management and Office Practice

### **HIT203 Medical Coding (3 credits) 135 Lecture hours**

This course explores the basics of medical coding. You'll learn how to interpret the ICD-10, HCPCS Level II, and CPT coding manuals and apply them to coding scenarios. You'll examine specialty areas such as cardiology and obstetrics/gynecology, radiology, pathology, and laboratory work. You'll learn the steps you need to take in order to assign correct codes to diagnoses and procedures. Finally, you'll learn how to use each of the coding manuals in conjunction with the others to create a full set of codes for a patient visit. PREREQ: Medical Terminology

### **HIT207 Medical Transcription (3 credits) 135 Lecture hours**

An introduction to the technical and legal aspects of medical transcription, as well as career opportunities available in the field. The student will begin to transcribe and format various types of medical records. PREREQ: Medical Terminology, Anatomy and Physiology 1, Anatomy and Physiology 2

### **HIT208 Medical Transcription 2 (3 credits) 135 Lecture hours**

Medical Transcription 2 will direct the student on the use of various types of medical transcription, with an emphasis on increasing speed, accuracy, and formatting of reports. This course bridges the gap between Medical Transcription 1, with easy-to-understand dictation, and the harder-to-understand, difficult dictation of the work environment. Medical Transcription 2 will provide the student with the skills necessary to complete complex reports within the major medical specialties. PREREQ: Medical Transcription

### **HIT209 Department Management (2 credits)**

Presents the management and supervisory functions and skills of a health information management department. The focus is on the fundamentals of management, basic management functions, principles of supervision, and the supervision of specific health information management functions. The course also covers organizational structure, human resources management, staff development, and management budgeting and finance functions. PREREQ: Medical Information Management and Office Practice, Reimbursement Methodologies, Quality Assurance/Performance Improvement.

### **HIT210 Healthcare Statistics (3 credits)**

This course is designed to introduce the health information technology student to the calculation, compilation, analysis, and presentation of healthcare statistics. The focus is on basic descriptive and inferential statistics and the concepts of data validity and reliability. The course also covers data collection methods, the interpretation of data, calculation of statistical formulas, and uniform reporting requirements. PREREQ: Mathematics for Business and Finance

### **HIT290 Practicum in Health Information Technology (4 credits)**

A comprehensive overview designed to prepare the student to perform functions and demonstrate competencies related to health information services in a variety of settings. Students will be tested on health information knowledge, perform project and research work, practice skills, and gain clinical workplace experience in a variety of settings under the supervision of a clinical practice supervisor. PREREQ: The student must have completed Semesters 1, 2, and 3 and Medical Transcription 2.

## **Human Resources Management**

### **HRM201 Human Resources Management (3 credits)**

An overview of Human Resources Management (HRM) as it's understood today. This course illustrates the dynamic interaction of how the personnel functions with each other and with the objectives of an organization. PREREQ: Principles of Management

### **HRM355 Training Concepts (3 credits)**

A synthesis of accepted theory regarding training and the management of the training function in organizations and an examination of successful and unsuccessful training practices. PREREQ: Principles of Management, Human Resources Management

### **HRM210 Compensation Management (3 credits)**

The course covers the basic components of a total compensation package (salary, bonus, and benefits), the development, implementation, and maintenance of a program, the impact of internal and external equity, and additional factors which must be considered for the overall success of a program. PREREQ: Human Resources Management

### **HRM320 Employee Benefit (3 credits)**

This course will introduce the many different elements that comprise employee benefits. The course will not only help the career of the benefit specialist, but it will also cover the history and many of the governmental issues concerning benefit programs today. Employee Benefits covers the total employee benefit planning process. PREREQ: Human Resources Management, Compensation Management

### **HRM350 Labor Relations (3 credits)**

The study of labor relations examines the interactions between organized labor unions and company management. These interactions between unions and management include rights and responsibilities, negotiations, and collective bargaining. PREREQ: Human Resources Management

## **Humanities**

### **HUM102 Art Appreciation (3 credits)**

#### **135 Lecture hours**

In this course, the student will gain an understanding of artistic media, historical periods and artistic movements, the roles of the artist and the viewer, and the principles of art criticism. PREREQ: None

### **HUM104 Music Appreciation (3 credits)**

#### **135 Lecture hours**

In this course, the student will understand how to appreciate music and learn about the roles of the composer and the listener, the principles of music theory and instrumentation, musically significant historical periods, and varying styles of music. PREREQ: None

### **HUM106 Interpersonal Communication**

#### **(1 credit) 45 Lecture hours**

Developing more effective personal communication skills to increase chances for professional success; increasing skill levels involving the use and selection of words, gestures, tone of voice, facial expressions, listening skills, as well as overall physical appearance. PREREQ: None

### **HUM108 Career Readiness (1 credit)**

This course provides an overview of baseline responsibilities common to most jobs, as well as personal, people, and workplace skills. Students will develop an understanding of productivity, adaptability, time management, organization,

prioritization, and goal setting. Students will learn effective written and interpersonal communication skills, decision-making and problem-solving processes, open-mindedness, and how to interact with customers in a professional manner with the goal of providing the customer with a positive experience. Topics include: the importance of teamwork, characteristics of leadership, and strategies for overcoming conflict. PREREQ: None

## Industrial Engineering Technology

### **IET105 Introduction to Manufacturing (1 credit)**

This course introduces students to the "who, what, when, how, and why" behind the manufacturing industry. Students will become familiar with different manufacturing methods and demonstrate job-specific technical, professional, analytical, and problem-solving skills. Students will also be able to identify relevant components, and steps of the manufacturing process and compare different manufacturing techniques. PREREQ: None

### **IET110 Manufacturing Processes (4 credits)**

Cutting tools; machine tools; welding techniques; magneforming; testing of materials; nondestructive testing techniques; micrometers; gauges; basic numerical control. PREREQ: Foundation Skills in Math

### **IET121 Engineering Economy (1 credit)**

Operating costs; investment methods; interest tables; engineering valuation. PREREQ: Foundation Skills in Math

### **IET135 Lean Manufacturing (1 credit)**

This course will provide an introduction to lean manufacturing techniques, the history of lean, and continuous improvement (CI) fundamental principles based upon the Toyota Production System. Students will be able to define the foundation and principles of lean, describe the methods and tools used in lean, identify continuous-improvement methods and tools, and demonstrate job-specific technical and professional skills. Additional topics: standard work, 5S, the visual workplace, direct observation, value stream mapping, continuous-improvement methods and tools, mistake-proofing, and gemba walks. PREREQ: None

### **IET235 Operational Analysis (2 credits)**

Operation analysis procedures; selection of process and tooling; plant layout and material handling. PREREQ: Foundation Skills in Math

### **IET237 Materials Management and Inventory Control (3 credits)**

Production scheduling, planning, and MRP; capacity management (CRP); production activity control; demand forecasting; inventory processes; warehousing and materials handling; just-in-time planning; product-quality control; total-quality management (TQM).

### **IET243 Industrial Safety (3 credits)**

Procedures for handling various materials; operating different kinds of machinery; performing job tasks safely; survey of the regulations designed to improve industrial safety. PREREQ: Foundation Skills in Math

### **IET248 CNC Technology (3 credits)**

Numerical control basics; how CNC based machine tools operate; basic CNC programming; angular and contour programming; types of CNC equipment; machining centers; future of numerical control.

## Interior Design

### **BCT101 History of Interior Design (3 credits)**

This introductory course provides a chronological examination of interior design. Focus is on architectural details, furnishings, and decorative objects. PREREQ: None

### **BCT105 Drawing for Interiors (3 credits)**

Drawing for Interiors teaches students the simple drawing techniques needed for the preliminary phase of design presentation. The focus is on sketching basics — including line, light, and texture — and perspective drawing. PREREQ: None

### **BCT115 Interior Design Fundamentals (3 credits)**

Interior Design Fundamentals covers the basics of the profession for both commercial and residential environments. Topics covered include space planning, environmental sensitivity, and multicultural design. PREREQ: History of Interior Design

**BCT135 Textiles (3 credits)**

This course provides students with a basic knowledge of the production and performance characteristics of textiles. Topics include fabric development; fibers and their properties; yarn processing and classification; fabrication techniques, such as weaving and knitting; textile care and sustainability; and environmental issues associated with the textile industry. PREREQ: History of Interior Design; Color Theory; Interior Design Fundamentals

**BCT140 History of Furniture (3 credits)**

This course profiles the history of furniture development from the ancient world to modern-day styles. Students will learn about how the cultural, political, social, and economic factors of each time period influenced furniture designs and the creative arts. PREREQ: History of Interior Design; Interior Design Fundamentals; Textiles

**BCT145 CAD for Interiors (3 credits)**

CAD for Interiors uses a step-by-step approach to teach beginning interior designers how to create professional floor plans for their design projects. Students will learn how to draw a base plan; add text, dimensions, and layers; and create interior sections and elevations. PREREQ: Drawing for Interiors

**BCT150 Building Systems for Interior Design (3 credits)**

This course explains technical building systems and engineering issues to interior designers. Topics include heating and air conditioning systems, environmental issues, water and waste, thermal comfort, electricity, lighting, security and communications systems, fire safety, and transportation systems. PREREQ: Interior Design Fundamentals

**BCT165 Materials for Interiors (3 credits)**

Materials for Interiors covers the nonstructural materials used in typical design projects. Topics include paint, wallcoverings, carpet, wood, ceilings, and kitchen and bathroom materials. Special attention is paid to environmental concerns and recycling of materials. PREREQ: Interior Design Fundamentals; Textiles; History of Furniture

**BCT201 Residential Design (3 credits)**

This course teaches the fundamental skills needed to create well-designed interior spaces of all types — from entryways and hallways to kitchens, bathrooms, and living spaces. The focus is on ergonomics and required clearances, organizational flow, building codes, electrical and mechanical concerns, lighting, fixtures, storage, and appliances in residential spaces. PREREQ: Building Systems for Interior Design; Materials for Interiors

**BCT202 Commercial Design 1 (3 credits)**

Students in this course will learn about all aspects of commercial space planning, including code requirements, design applications, and historical perspectives of commercial buildings. Types of facilities covered include office spaces, lodging facilities, and healthcare facilities. PREREQ: Building Systems for Interior Design; Materials for Interiors

**BCT205 Marketing and Sales in Interior Design (3 credits)**

This course teaches beginning interior designers to develop effective marketing strategies for their businesses. Course topics include establishing a professional brand and profile, targeting and qualifying clients, building strong and lasting client relationships, creating contracts, handling complaints, and charging for services. PREREQ: Interior Design Fundamentals

**BCT215 Codes for Interiors (3 credits)**

Codes for Interiors covers the breadth of codes and standards needed by interior designers. It discusses occupancy classifications; performance codes; fire codes; building and finish standards; plumbing, mechanical, and electrical codes; energy codes; and Americans with Disabilities standards. PREREQ: Building Systems for Interior Design; Residential Design; Commercial Design 1

**BCT225 Professional Practice (3 credits)**

Professional Practice covers the legal, financial, management, marketing, administrative, and ethical issues encountered by interior designers. Topics include establishing personal and professional goals, establishing and growing a new design business, marketing and developing your business, and determining project compensation and fees. PREREQ: Marketing and Sales in Interior Design; Codes for Interiors



**BCT230 Kitchen and Bath Design (3 credits)**

This course covers the fundamental design principles and planning procedures for kitchens and bathrooms. Design codes and structural requirements are covered first, followed by detailed explanations of the components of each room. Special emphasis is placed on cabinetry, countertops, storage, appliances, plumbing, electrical/mechanical considerations, and sustainability. PREREQ: Residential Design; Codes for Interiors

**BCT235 Architectural Lighting Design (3 credits)**

Students enrolled in this course will learn interior and exterior lighting techniques for residential and commercial spaces. The concepts of daylighting, special effect lighting, retrofitting, and energy code calculations are introduced. Also discussed are lighting applications for specific spaces, including residences, workspaces, classrooms, healthcare settings, hospitality settings, and retail settings. PREREQ: Building Systems for Interior Design; Materials for Interiors

**BCT245 Environmentally Responsible Design (3 credits)**

This course teaches design professionals how to apply “green” principles to their projects. Topics include global sustainability, indoor environmental quality, energy and water issues, evaluating finishes and furnishings, evaluation instruments, certification programs, and US Green Building Council (USGBC) and Environmentally Responsible Interior Design (ERID) specifications. PREREQ: Building Systems for Interior Design; Materials for Interiors; Codes for Interiors

**BCT248 Commercial Design 2 (3 credits)**

This course is a continuation of Commercial Design 1. Students enrolled in this course will learn about all aspects of commercial space planning, including code requirements, design applications, and historical perspectives of commercial buildings. Types of facilities covered include food and beverage facilities, retail spaces, senior living facilities, institutional facilities, and cultural/recreational areas. PREREQ: Commercial Design 1

**BCT300 Drafting and Engineering Mechanics (3 credits)**

In this course, you'll learn how to prepare drawings using AutoCAD for the four drafting disciplines: structural drafting, civil drafting, HVAC/sheet metal drafting, or electrical/electronic drafting. This course explains how civil drafting correlates with surveying and reviews the methods, laws, and procedures used in engineering mechanics.

## Internet Technology

**INT101 Computer Technology Orientation (1 credit)**

Overview of internet technology; role of technology in society; strategies for completing the Internet Technology Program as an independent learner. PREREQ: None

**INT114 Internet Marketing and E-Commerce (3 credits)**

Provides a concise introduction to electronic commerce with balanced coverage of both technology and business topics; contains a comprehensive online companion that links the concepts in the book to real online examples; security, implementation, ethics, and legal issues in electronic commerce; case studies of real businesses. PREREQ: Computer Literacy

**INT120 HTML Coding (3 credits)**

Teaches how to create web pages with hypertext links, tables, frames, and forms; covers cascading style sheets, programming with JavaScript,<sup>®</sup> working with content and layout, controlling mouse and keyboard events, and creating new frames and windows. PREREQ: Computer Applications

**INT125 Internet Server Environments (3 credits)**

Designed to teach Java™ to those studying programming for the first time but is also appropriate for those building on experiences in another programming language. Introduces object-oriented techniques early; features short code examples built from the bottom up; offers more thorough coverage of the basics with many examples; devotes an entire chapter to Swing. PREREQ: Computer Literacy

### **INT128 Network Protocols and Internetworking (3 credits)**

Covers topics related to how computers communicate with each other, how computers are grouped together to form networks, networking concepts and issues that are key to the successful implementation of computer networks, and the different networking implementation strategies and technologies currently available. PREREQ: Computer Literacy; Internet Server Environments

### **INT130 Internet Security (3 credits)**

Explores web security risks and how to minimize them; aimed at web users, administrators, and content providers, and it covers cryptography, SSL, the public key infrastructure, digital signatures, digital certificates, privacy threats (cookies, log files, web logs, web bugs), hostile mobile code, and web publishing (intellectual property, P3P, digital payments, client-side digital signatures, code signing, PICS). PREREQ: Computer Literacy

### **INT201 Web Site Project Management (3 credits)**

Provides future developers and designers information on how to think about creating a successful website; covers planning and analysis, designing and developing, and marketing. This text is for the programmer or developer who is serious about exploring the nature of a successful website. PREREQ: Computer Literacy

### **INT205 Introduction to Internet Multimedia (3 credits)**

Provides an overview of multimedia on the web and multimedia elements such as text and graphics, as well as sound, animation, and video; describes multimedia-authoring programs and the development and design of multimedia titles; covers the management and distribution of multimedia titles. PREREQ: Computer Applications

### **INT210 Creating Web Pages with PHP (3 credits)**

Students will master the basics of coding in PHP by creating web pages, not by spending time wading through manuals; provides step-

by-step instructions on how to get MySQL, Apache, and PHP up and running on a Windows® or Linux® machine; teaches how to use PHP variables; display dynamic content; use cookies; create a contact management system; create custom logs and reports; authenticate and track users; display dynamic content. PREREQ: HTML Coding

### **INT215 Programming in Java™ (3 credits)**

Introduces object-oriented techniques early; features short code examples built from the bottom up; offers more thorough coverage of the basics, explanations and examples using the StringBuffer class; devotes an entire chapter to Swing; designed to teach Java™ to those studying programming for the first time, but is also appropriate for those building on experiences in another programming language. PREREQ: HTML Coding

### **INT220 Programming in CGI/Perl (3 credits)**

Teaches how to create common gateway interface script (CGI) using practical extraction and report language, more commonly known as Perl; covers how to add functionality to web pages using features such as hyperlinks, forms, data files, and databases; create truly interactive web applications using subroutines, string manipulation, cookies, hidden fields, and redirects. PREREQ: HTML Coding; Programming in Java™

### **INT225 Introduction to Database Technology (3 credits)**

Offers an overview of essential database concepts, with a focus on the relational model of database management; covers Structured Query Language (SQL) design methodology, functions of a database management system, and database administration; includes advanced topics such as object-oriented (OO) databases, data warehouses, and client server systems. PREREQ: Internet Server Environments

### **INT238 Multimedia and Interactive (3 credits)**

This course will provide instruction on how to develop engaging interactive projects integrating video, sound, graphics, and animation that you can publish to a variety of platforms. PREREQ: HTML Coding

## **INT242 Advanced Database**

### **Technology-Oracle: SQL (3 credits)**

This course will give you the necessary background in relational database theory and Oracle Database concepts. It will show you how to implement an Oracle Database correctly and give you significant insight into the routine of a database administrator. Lastly, you'll learn about the fine art of performance tuning.

## **Marketing**

### **MKT301 Marketing (3 credits)**

This course covers the principles of marketing. Topics covered include assessing, analyzing, understanding, and targeting the marketplace, as well as the creation, capture, delivery, and communication of value. Students will learn how to develop a marketing plan, use social and mobile marketing effectively, integrate ethics into marketing strategies, influence the consumer decision process, perform market research, perform SWOT and STP analyses, make decisions concerning branding, packaging, and developing new products, price products and services fairly, set advertising objectives, and more. PREREQ: None

### **MKT310 Advertising Principles (3 credits)**

Students will learn about the global effect of advertising and integrated marketing communications (IMC), as well as how to use advertising and IMC strategies to create compelling marketing strategies and campaigns. PREREQ: Marketing

### **MKT320 Consumer Behavior (3 credits)**

This course will teach you the principles involved in how and why consumers make decisions. Topics covered include influencing consumer behavior, consumer decision-making, effects on research and marketing, factors that affect purchasing behavior, and consumer acceptance of products. PREREQ: Marketing

### **MKT340 Retail Management (3 credits)**

This course is designed to introduce students to retailing in a rapidly changing environment. Topics covered include organization of retail stores, basics of retailing, management of a successful retail business, and merchandising principles. PREREQ: Marketing

## **MKT260 Marketing Research (3 credits)**

Nature and scope of marketing research; sampling and sampling methods; primary and secondary data sources; questionnaire scales; data analysis; development of summary statistics. PREREQ: Business Statistics

## **Mathematics**

### **MAT100 Foundation Skills in Math (3 credits)**

Students learn the essential math skills necessary for future success in an AS technology program. The course of study includes a review of basic math functions, including trades-based examples, the metric system, formulas, introductory algebra, applied geometry, and some practical applications of trigonometry. PREREQ: None

### **MAT102 Mathematical Applications (3 credits)**

This course provides a foundation in basic mathematical operations. Subjects covered include percentages, discounts, interest, pricing, depreciation, insurance, symbols and their applications, equations and formulas, and the importance of statistics. PREREQ: None

### **MAT106 Mathematics for Business and Finance (3 credits) 135 Lecture hours**

This course will provide the student with a foundation in basic mathematical operations. Topics covered include percentages; discounts; interest; present worth; sinking funds; installment buying; pricing; depreciation; investments; insurance; use of symbols and their applications, equations and formulas; and the importance of statistics. PREREQ: None

### **MAT110 Technical Mathematics 1 (2 credits)**

Use of formulas; algebraic operations; use of determinants; use of exponents; logarithms. PREREQ: None

### **MAT115 Intermediate Algebra (3 credits)**

Study basic algebraic concepts. Review the systems of equations, polynomials, and radicals. Learn how to factor polynomial expressions and simplify rational expressions. PREREQ: None

### **MAT122 Technical Mathematics 2 (2 credits)**

Practical geometry; plane trigonometry; polygons and solids; angles; trigonometric functions. PREREQ: Technical Mathematics 1

**MAT140 Medical Mathematics (3 credits)**

This course provides a review of basic math and then covers medication administration, systems of measurement, and calculating medication dosages. PREREQ: Mathematical Applications

**MAT210 Business Statistics (3 credits)**

Presentation of data; frequency distribution; averages; dispersion and skewness; index numbers; time series analysis; correlation and forecasting; the theory of probability and statistical inference. PREREQ: Mathematics for Business and Finance

**MAT215 Merchandising Math (3 credits)**

Students will learn the concepts of profit and the calculation, interpretation, and analysis of the profit-loss statement; pricing factors used in buying decisions and the calculations used when pricing and/or repricing retail merchandise; the calculations of the various types of markup; procedure of determining the total value of the stock-on-hand and shortages; the planning and control of stocks and purchases; as well as invoice mathematics.

**MAT220 Analytic Geometry and Calculus (4 credits)**

Rectangular coordinates; graphics of linear equation; average rate of change; applications of integrals; derivatives and their applications; applications of calculus to shapes and moments. PREREQ: Foundation Skills in Math

**MAT222 Precalculus (3 credits)**

This course covers precalculus concepts that all college students need as prerequisites to calculus and other related courses required in many undergraduate majors. Specific topics include exponents, logarithms, sequences, series, trigonometric functions, analytic trigonometry, systems of equations and inequalities, matrices, conic sections, polar coordinates, and limits. PREREQ: Intermediate Algebra

**MAT245 Applied Mathematics (3 credits)**

The practical application of calculus to electronics; graphic differentiation; partial derivatives; the application of double integrals to electrical circuits. PREREQ: Analytic Geometry and Calculus

**MAT260 Survey of Mathematics (3 credits)**

Designed for liberal arts and business majors. A sampling of the history of mathematics and calculations using algebra, geometry, and trigonometry; problems and exercises that provide “real life” applications of concepts. PREREQ: Mathematics for Business and Finance, Medical Math

**MAT415 Research and Statistics (3 Credits)**

Your Research and Statistics course addresses the application of scientific methods of inquiry to various research goals. You'll be introduced to the research methods used by criminal justice professionals to prove or disprove criminal justice theories and to evaluate applications and policies; PREREQ: Business Statistics

## Mechanical Engineering Technology

**MET100 Orientation to Engineering Technology (1 credit)**

This course discusses the fundamentals of various technologies that are encountered in daily life such as smart building, internet and web, and the traction control system in cars. You'll learn how electricity and natural gas is generated and transported, and you'll explore the requirements of various types of technician jobs. PREREQ: None

**MET101 Basic Drafting (3 credits)**

Recognizing and interpreting various types of drawings; using drafting equipment; drawing techniques; creating projections; adding dimensions, sections, auxiliary views, and breaks to drawings; geometric drawing systems. PREREQ: None

**MET123 Engineering Materials (2 credits)**

Composition and properties of metals, ceramics, concrete, glass, graphite, plastics, and wood. PREREQ: Foundation Skills in Math

**MET126 Mechanics of Materials (2 credits)**

Simple stresses; welded, bolted, and riveted joints; fixed and moving loads on beams; reaction at beam support; theory of column design; radius of gyration. PREREQ: Engineering Mechanics

**MET170 Engineering Mechanics (3 credits)**

Branches of engineering mechanics; free-body diagrams; kinematics; force-mass acceleration method; impulse momentum; collision of two bodies. PREREQ: Foundation Skills in Math

**MET202 Drafting with AutoCAD® (3 credits)**

Computer-aided drafting and design systems; AutoCAD® menus and features; file and entity creation; drawing organization; displaying, modifying, and annotating drawings; data exchange and output methods. PREREQ: Introduction to Technical Drawings

**MET220 Fluid Mechanics (3 credits)**

Properties of materials; intensity of pressure; center of pressure; flow of water in open channels; rate of discharge through water. PREREQ: Engineering Mechanics

**MET221 Quality Control Systems (3 credits)**

Establishing quality systems; interpreting conventional and GD&T system drawings; setting up and using inspection tools and equipment; developing part acceptance procedures; statistical process control (SPC) fundamentals and practical applications. PREREQ: Foundation Skills in Math

**MET231 Mechanical Design 1 (3 credits)**

Stress analysis; work, energy, and power; design stress; moment diagrams; friction; lubrication systems; ball and roller bearings. PREREQ: Mechanics of Materials; Manufacturing Processes

**MET232 Mechanical Design 2 (3 credits)**

Shaft design and seals; fasteners; couplings; welding and weld designs; belting; power screws; gears; cams; flywheels; fluid power; governors; professional registration. PREREQ: Mechanical Design 1

**MET240 Electro/Mechanical Control Technology (3 credits)**

As a control systems technician, you'll need to understand how electronic systems are combined to deliver acceptable data signals to computers. This course is designed to help you learn the fundamentals of instrumentation, as well as control system

components and operation. The information in your textbook will provide you with a solid foundation in the operating principles of industrial instrumentation devices, the control systems they serve, and so on. You'll learn how a control system works, and how instrumentation provides the control system with the information for operation. You'll study specific types of systems, including those that use fluid analyzers. You'll continue to study signal transmission topics before finishing your program with a detailed look at several specific control-system applications. PREREQ: Foundation Skills in Math and Physical Science

**MET241 Tool Design 1 (3 credits)**

This course will introduce the student to the fundamentals of designing manufacturing tooling. The course will cover the basic tooling concepts, the material used for tooling, and the concepts of work holders, jigs, and fixtures. The course will also introduce the student to the process of geometric dimensioning and tolerancing, and discuss its relationship to the design of tooling. PREREQ: Manufacturing Processes

**MET242 Tool Design 2 (3 credits)**

This course will introduce the student to the various methods used in the design of dies and the processes used for the joining of materials. We also will cover the use of presses and the uses of forging techniques to form materials. Finally, the course will cover how computers are used in the tool and die industry. PREREQ: Tool Design 1

**MET243 Tool Design (3 credits)**

In the course, the word tool refers to devices used in manufacturing industries. These devices, or tools, include cutting tools, jigs, fixtures, gages, and so on. The specific types of tools used in a particular manufacturing plant depend on the product the plant produces. Tool design involves the definition of a need for a tool, analysis of that need, collection of data for the design, preliminary design, final design, toolmaking, application, and testing. To be a tool designer, a person needs a working knowledge of the following major subject areas: mathematics (algebra, trigonometry, and geometry), engineering drawing, manufacturing processes, machine tools, and properties of engineering materials. Today, tool designers

use computers to prepare tool drawings and to design tools. PREREQ: Manufacturing Processes, Manufacturing Materials and Practices. PREREQ: Manufacturing Processes

### **MET245 Geometric Dimensioning and Tolerancing (3 credits)**

This course focuses on the use of the geometric dimensioning and tolerancing (GDT) system in the design and manufacture of detailed parts and assemblies. Students will learn how to use and interpret GDT drawing symbols, how to adjust manufacturing and inspection processes to meet the requirements of GDT specifications, and evaluate the use of the geometric dimensioning and tolerancing methods and specifications used in modern manufacturing. Students will also be able to demonstrate effective quantitative skills along with job-specific technical and professional skills. PREREQ: Foundation Skills in Math

### **MET248 Industrial Plastics (3 credits)**

Students receive an introduction to the basic chemical principles that are relevant to the plastics industry. They will understand the properties and uses for various types of plastics, how to test and identify the plastic's properties, and the effects of introducing certain additives. The course also includes a discussion of manufacturing processes, such as molding, machining, finishing, material selection, process control, and extruding. PREREQ: None

### **MET300 Precision Machining Operations (3 credits)**

In this course, you'll learn the basic concepts of milling programs, various lathe operations and safety requirements, and the major components of machining centers.

## **Medical Assistant**

### **MAS204 Clinical Procedures Lab 1 (1 credit) 45 Lab hours**

Students will be initiated into the clinical aspects of medical assisting, vital signs, and medical asepsis. Students will receive a clinical skills kit that will allow them to receive the hands-on training of required skill sets. Students will demonstrate competencies in each clinical skill by recording themselves performing the skill and performing the skill under the supervision of an approved proctor. Each skill must be

successfully demonstrated and approved by Penn Foster faculty in order to earn credit for the course and advance to the externship. All costs associated with the procedures lab course are the responsibility of the student. These costs are not included in the tuition. PREREQ: Clinical Procedures Theory 1

### **MAS205 Clinical Procedures Lab (1 credit) 45 Lab hours**

Students will be initiated into the clinical aspects of medical assisting, vital signs, and medical asepsis. Students will receive a clinical skills kit that will allow them to receive the hands-on training for those required skill sets. Students will demonstrate competencies in each clinical skill by recording themselves performing the skill and performing the skill under the supervision of an approved proctor. Each skill must be successfully demonstrated and approved by Penn Foster faculty in order to earn credit for the course and advance to the externship. All costs associated with the procedures lab course are the responsibility of the student. These costs aren't included in the tuition. PREREQ: Clinical Procedures

### **MAS206 Clinical Procedures Lab 2 (1 credit) 45 Lab hours**

The students will continue with the clinical aspects of medical assisting: sterilization and disinfection, appropriate site placement for EKG leads, identifying a vein for venipuncture, collecting a sputum specimen, OSHA, CLIA, patient education for a mid-stream urine specimen, pediatric mensuration, and educating a patient on metered dose inhaler. Students will continue to use the materials required to complete the skills from the clinical skill kit provided to the student for Clinical Procedures Lab 1. Students will demonstrate competencies in each clinical skill by recording themselves performing the skill and performing the skill under the supervision of an approved proctor. Each skill must be successfully demonstrated and approved by Penn Foster faculty in order to earn credit for the course and advance to the externship. All costs associated with the procedures lab course are the responsibility of the student. These costs are not included in the tuition. PREREQ: Clinical Procedures Theory 2

### **MAS219 Externship 1 (1 credit)**

#### **45 Externship hours**

When the student completes all of ALH209 Clinical Procedures Theory 1 and MAS204 Clinical Procedures Lab 1, the student would be able to begin clinical hours. The student will need to complete hours in a healthcare setting in order to be able to obtain all of the required skills completed. The student will be required to complete a daily journal of their experiences and document how they're completing the course objectives. Forty clinical hours would be required in this semester. Sites required in this semester would include a family practice. Students would need to have completed every single skill to graduate with no exceptions. PREREQ: Clinical Procedures Theory 1, Clinical Procedures Lab 1

### **MAS220 Externship (4 credits)**

#### **200 Externship hours**

When the student completes all the academic courses and the clinical procedures lab, the student will extern in a healthcare setting. The student will use their knowledge and skills derived from the medical assistant program and demonstrate competencies in the areas of clinical, administrative, and general medical assisting. The externship will be for the duration of 200 hours. PREREQ: Semesters 1-4

### **MAS221 Externship 2 (2 credits)**

#### **160 Externship hours**

When the student completes all of ALH211 Clinical Procedures Theory 2 and MAS206 Clinical Procedures Lab 2, the student would be able to begin clinical hours. The student will need to complete hours in a healthcare setting in order to be able to get all of the required skills completed. The student will be required to complete a daily journal of their experiences and document how they're completing the course objectives. One hundred sixty clinical hours would be required in this second semester. PREREQ: Clinical Procedures Theory 2, Clinical Procedures Lab 2

### **MAS225 Externship (3 credits)**

#### **160 Externship hours**

The medical assistant externship provides the student with hands-on training in a primary care clinic, an urgent care clinic, or a medical practice. The goal of this externship is to provide

the student with the hands-on experience necessary for developing their skills as a medical assistant. The student will practice under the direct supervision of a certified medical assistant, nurse, physician assistant, or medical doctor. This externship consists of 160 hours of clinical experience. The student is required to complete and submit weekly timesheets signed by their externship preceptor. PREREQ: ALH210, MAS205

## **Nutrition**

### **NTR203 Sports Nutrition (3 credits)**

Sport-specific nutrition; aerobic and anaerobic metabolism; the onset of fatigue; carbohydrate, protein, and fat requirements; vitamins and minerals; hydration; the glycemic index; pre-, during-, and post-exercise consumption; ergogenic aids; weight management; and body composition. PREREQ: None

## **Paralegal Studies**

### **PLS101 Introduction to Paralegal Studies (1 credit)**

Occupation of the paralegal; strategies for completing the paralegal studies program as an independent learner; value of the paralegal in the practice of law as it's conducted in the traditional legal community, as well as in government, education, and business. PREREQ: None

### **PLS105 Legal Terminology (2 credits)**

Basic legal terminology needed to embark on a career as a paralegal; avoiding inaccuracies that can give rise to serious legal consequences; basics of critical thinking in the drafting of good legal arguments. PREREQ: None

### **PLS110 Ethics (2 credits)**

Professional responsibilities that apply to paralegals as they assist their employers and their clients, including maintaining confidentiality and competence; handling fees and funds carefully; and avoiding unauthorized practice of law, conflicts of interest, and potential malpractice. PREREQ: None

**PLS113 Law and the Legal System (2 credits)**

How history has shaped the organization and structure of our contemporary courts; definition of law; moral or value systems from which our laws have sprung; how the law works. PREREQ: Legal Terminology

**PLS114 Investigations and Interviews (2 credits)**

Types of questions that can be used in an interview; identification of the objectives of an interview; ethical considerations about interviewing; summarizing the information obtained through an interview. PREREQ: Law and the Legal System

**PLS121 Torts (3 credits)**

Principles of tort law that an attorney applies in a personal injury practice; the importance of the attorney-paralegal team in the practice of personal injury law; basics of the legal system, and the elements of the most common intentional and unintentional torts are discussed. PREREQ: Interpersonal Communication; Investigations and Interviews

**PLS202 Legal Research and Writing (4 credits)**

Provides training in the kind of research and writing that students will actually be doing as paralegals, including the use of lexis.com, other online resources, and traditional print sources, in order to complete three writing and research projects. PREREQ: None

**PLS205 Civil Litigation (3 credits)**

Use of the court system to resolve disputes; involvement of paralegals in litigation support, including discovery; alternative dispute resolution methods; how paralegals can develop their skills as arbitrators and/or mediators in these methods. PREREQ: None

**PLS211 Criminal Litigation (3 credits)**

Introduction to the practice and theory of criminal law; substantive criminal law; criminal procedure; criminal responsibility; major felonies recognized in most, if not all, jurisdictions; constitutional dimensions of criminal procedure; practical aspects of the criminal justice process. PREREQ: None

**PLS213 Family Law (3 credits)**

Description of the current state of family law and the role of the attorney-paralegal team within it; changes in the practice of family law. PREREQ: None

**PLS215 Real Estate Law (3 credits)**

Introductory course in real property law; basics of real property law; areas of a modern real estate practice; preparation for assisting transactional real estate attorneys; legal forms used in real estate law. PREREQ: None

**PLS217 Wills, Trusts, and Estate Administration (3 credits)**

Basic, practical, everyday duties of paralegals working in the fields of wills, trusts, and estate administration; terminology and general principles of law that are the basis for drafting wills and trusts; planning and administering estates. PREREQ: None

## PC Maintenance Technology

**PCM101 Orientation to PC Maintenance Technology (1 credit)**

A discussion of strategies for completing the PC support technology program as an independent learner. PREREQ: None

**PCM103 Introduction to PC Repair (2 credits)**

This course provides the student with a broad view of PC repair, focusing on the essential elements of hardware and software, as well as the importance of safety. It also explains the essential characteristics of a PC maintenance technician and the various types of employment available. PREREQ: Computer Literacy

**PCM105 PC Hardware 1 (3 credits)**

Defines and describes the elements and function of hardware devices that are part of a modern personal computer system. PREREQ: Introduction to PC Repair

**PCM106 PC Hardware 2 (3 credits)**

This course provides the student with more sophisticated techniques in PC repair, including external i/o devices, printers, notebooks/laptops/PDAs, purchasing and building PCs, troubleshooting, support, virus protection, data protection, and recovery. PREREQ: PC Hardware 1



### **PCM107 PC Operating Systems (3 credits)**

This course provides a systematic overview of operating systems, including Windows® operating systems, as well as Mac operating systems. The course also describes the use of software for virus protection, data protection, and recovery. PREREQ: PC Hardware 2

## **Science**

### **SCI110 Earth Science (3 credits)**

Surveys a broad range of topics within the fields of geology, meteorology, oceanography, and astronomy. PREREQ: None

### **SCI120 Introduction to Biology (3 credits)**

#### **135 Lecture hours**

An introductory course that explains the origin of life and the relationships among all living things. It describes how a significant number of organisms are structured and how they work, in order to enable students to discuss intelligently the various forms of life and their processes.

PREREQ: None

### **SCI135 Anatomy and Physiology 1**

#### **(3 credits) 135 Lecture hours**

The anatomy and physiology of the human body is presented as an integrated science. Each major body system is described and analyzed to illustrate normal function, as well as pathology.

Topics include basic biochemical elements, skin, bone, muscles, the nervous system, the senses, and the endocrine system.

PREREQ: None

### **SCI136 Anatomy and Physiology 2 (3 credits)**

#### **135 Lecture hours**

A continuation of Anatomy and Physiology 1. Topics include the cardiovascular system, the lymphatic system, immunity and infection control, respiration, digestion, nutrition, the urinary system, reproduction, and genetics.

PREREQ: Anatomy and Physiology 1

### **SCI140 Nutrition (3 credits)**

#### **135 Lecture hours**

Personal decision-making about nutrition; nutrition science; water; exercise; human growth and aging; safety of the food supply; the global view. PREREQ: None

### **SCI162 Physics (3 credits)**

Heat; electricity; light; sound; the nature and properties of each; circuits; infrasonics and ultrasonics. PREREQ: Foundation Skills in Math

### **SCI165 Technical Science (2 credits)**

Use of metrics; nature of heat; expansion of gases; fundamental laws of chemistry; organic chemistry. PREREQ: Foundation Skills in Math

### **SCI167 Physical Science (3 credits)**

Principles that define and govern the physical universe as we know it; chemistry; physics, earth and space sciences. PREREQ: Foundation Skills in Math

### **SCI300 Essentials of Biochemistry**

#### **(3 credits)**

This course will introduce the student to biochemistry through the study of the essential elements found in living things. Students will examine the characteristics and properties of lipids, cell membranes, and carbohydrates. They'll learn about the structure and functions of proteins, enzyme kinetics, and cell metabolism. Students will also examine metabolic systems and concepts related to DNA, RNA, and protein synthesis.

## **Social Science**

### **SSCI105 World Civilizations (3 credits)**

This course serves as an introduction to many of the major events of the fifteenth through twenty-first centuries. It also examines the causal relationships between events and trends all across the globe. PREREQ: None

### **SSCI125 Introduction to Sociology (3 Credits)**

The course begins with an introduction to the field of sociology; discusses social structure and social interaction through groups, networks, and organizations; also discusses deviance, crime, and social control; describes the effects of stratification, racial and ethnic inequality, sex, gender, and sexuality; discusses the role of health, family, education, and religion in sociology; concludes with the topics of politics, the economy, population, social movements, technology, and social change. PREREQ: None

### **SSC130 Essentials of Psychology (3 credits)**

**135 Lecture hours**

This course covers biology and behavior, consciousness, memory, thought and language, intelligence, personality and gender, stress, and community influences. PREREQ: None

### **SSC200 History of Labor in the United States (3 credits)**

This course introduces students to the labor movement in the United States using readings, online discussion, research, and writing. Students will examine critical aspects of the past, present and future of the US labor movement. This course is appropriate for students with some knowledge of the labor movement who want to reflect upon the workings, history, and challenges of organized labor activities specific to the US workforce. PREREQ: None

### **SSC260 Adolescence and Adulthood (3 Credits)**

This course will explore the lives and diverse experiences of young people focusing on biological & cognitive foundations, cultural contexts and the media, gender, identity, family relationships, peers and friends, dating/love/sexuality, school, work, and the future. Problems such as drug use, violence, eating disorders, suicide, and teen pregnancy will be discussed. PREREQ: None

### **SSC265 Introduction to Public Policy (3 Credits)**

This course examines the aspects and institutions involved in the development of public policy. The course is a survey of issues in American public policy as will aid the student's ability to formulate, assess, and evaluate public policy. Students will also obtain knowledge of substantive policy issues being discussed and debated in government today. PREREQ: None

### **SSC310 Sociology of Diversity (3 Credits)**

This course examines minority groups and diverse heritages in contemporary society from a sociological perspective and explores the current trends and issues in contemporary society such as immigration, assimilation, and acculturation. PREREQ: Introduction to Sociology

## **Veterinary Technology**

### **VET101 Orientation to Veterinary Technology (1 credit)**

Overview of veterinary medicine and veterinary technology; roles of the various members of the veterinary healthcare team; professional ethics and legal aspects of veterinary practice; aspects of distance education in veterinary technology and strategies for success. PREREQ: None

### **VET102 Introduction to Veterinary Technology (2 credits)**

Introduction to animal science and an orientation to career opportunities in the field of animal care; typical behavior characteristics of animal species with regard to humane restraint and handling; the veterinary technician's role in patient history, physical exam, grief counseling, and client education; introduction to medical terminology. PREREQ: None

### **VET105 Veterinary Office Management (2 credits)**

Veterinary technician's role in practice management; accounting basics; personnel management; leadership skills; stress management; customer relations; practice ethics. PREREQ: None

### **VET106 Veterinary Office Management and Skill with People (3 credits)**

This course will introduce students to the various support staff positions within a veterinary practice. Students will discover how the veterinary practice operates in terms of bringing in clients, facility care and maintenance, as well as recordkeeping and filing. Students will learn the art of communication between the staff and the clients, from improving speech, managing telephone calls, to making appointments and greeting clients. Students will acquire skills for finding a job, including where to look for a job, creating a résumé, and preparing for an interview. Also presented in this course is information about personal growth, including the importance of continuing education, time and money management, as well as managing stress. PREREQ: None

### **VET110 Medical Nursing for Veterinary Technicians (3 credits)**

Veterinary emergency care, first aid, wound and bandage management, dental prophylaxis, general nursing care, and sample collection and treatment techniques. PREREQ: Introduction to Veterinary Technology, Animal Anatomy and Physiology 1 and 2

### **VET113 Animal Anatomy and Physiology 1 (4 credits)**

Structures and function of the animal body with emphasis on the similarities and differences of domestic animals. Principles of biology, body organization and metabolism of cells, tissues, and organ systems, including the integumentary, skeletal, muscular, nervous, and endocrine systems. PREREQ: Introduction to Biology

### **VET114 Animal Anatomy and Physiology 2 (4 credits)**

Continuation of Anatomy and Physiology 1; circulatory, lymphatic, cardiovascular, respiratory, digestive, and genitourinary systems. PREREQ: Introduction to Biology, Animal Anatomy and Physiology 1

### **VET115 Animal Anatomy and Physiology 1 (3 credits)**

Anatomy is the study of the structure of living things. Physiology is the study of the way body parts function—what they do and how they work. Understanding the anatomy and physiology of animals will help you care for them and enable you to communicate with veterinarians and other team members more effectively. In addition, the knowledge you gain will help you enhance your own skills and complete your expected responsibilities professionally and adequately. PREREQ: Introduction to Biology

### **VET116 Animal Anatomy and Physiology 2 (3 credits)**

Continuation of Animal Anatomy and Physiology 1; immunity and defense, cardiovascular, respiratory, digestive, and genitourinary systems in mammals. Then avian, amphibian, and reptilian physiology. PREREQ: Introduction to Biology, Animal Anatomy and Physiology 1

### **VET120 Diagnostic Imaging (3 credits)**

Radiation and ultrasound; x-ray production, film types and development, equipment operation and care, darkroom and developing procedures; radiation safety and preventative measures; positioning the animal for radiograph production.

PREREQ: Introduction to Veterinary Technology, Animal Anatomy and Physiology 1 and 2

### **VET123 Veterinary Pharmacology (3 credits)**

Use of drugs in veterinary medicine; introduction to drug testing methodology and the use/handling of prescriptions; calculation of dosages and administration techniques; drug actions, interactions, and adverse reactions. PREREQ: Introduction to Biology, Medical Mathematics

### **VET124 Pharmacology for Veterinary Technicians (3 credits)**

Use of drugs in veterinary medicine; introduction to drug testing methodology and the use/handling of prescriptions; calculation of dosages and administration techniques; drug actions, interactions, and adverse reactions. PREREQ: Introduction to Biology, Medical Mathematics, Medical Nursing for Veterinary Technicians

### **VET130 Practicum 1 (4 credits)**

The first of two clinical practicums at a veterinary hospital, be part of the working veterinary team and practice the knowledge and skills acquired from semesters 1 and 2. PREREQ: Semesters 1 and 2

### **VET131 Clinical Externship 1 (4 credits)**

The first of two clinical externships at a veterinary hospital, be part of the working veterinary team and practice the knowledge and skills acquired from semesters 1 and 2. PREREQ: Semesters 1 and 2

### **VET200 Animal Care and Management (3 credits)**

Veterinary emergency care, first aid, wound and bandage management, dental prophylaxis, general nursing care, and sample collection and treatment techniques. PREREQ: Introduction to Veterinary Technology, Animal Anatomy and Physiology 1 and 2

**VET201 Clinical Pathology 1 (3 credits)**

Microbiology, histology, cytology, and urinalysis; basics of microbiology; microorganisms and their effect on humans, animals, and the world around you; study of morphology, genetics, virology, and immunology. PREREQ: Introduction to Biology, Animal Anatomy and Physiology 1 and 2, Medical Mathematics

**VET202 Clinical Pathology 2 (3 credits)**

Hematology, clinical chemistry, and immunology; theoretical basis for analysis of body chemicals, urinalysis, hematologic, serologic, and cytologic evaluations; familiarization of equipment, reagents, and techniques required to utilize blood as a diagnostic aid; clinical laboratory safety, record keeping, quality control, necropsy sample collection, and storage. PREREQ: Introduction to Biology, Animal Anatomy and Physiology 1 and 2, Medical Mathematics, Clinical Pathology 1

**VET211 Surgical Procedures (3 credits)**

Principles and practices of surgical nursing; methods and mechanics of the process of sterilization; identification, use, and maintenance of surgical instruments; common surgical procedures. PREREQ: Animal Anatomy and Physiology 1 and 2

**VET212 Anesthesia for Veterinary Technicians (3 credits)**

Pharmacology of commonly used anesthetic agents, patient induction, monitoring, and recovery, anesthetic equipment and procedures, dose calculations, and anesthetic emergencies. PREREQ: Medical Mathematics, Animal Anatomy and Physiology 1 and 2, Pharmacology for Veterinary Technicians

**VET213 Anesthesiology (3 credits)**

Pharmacology of commonly used anesthetic agents, patient induction, monitoring, and recovery, anesthetic equipment and procedures, dose calculations, and anesthetic emergencies. PREREQ: Medical Mathematics, Animal Anatomy and Physiology 1 and 2, Veterinary Pharmacology, Surgical Procedures

**VET214 Surgical Nursing for Veterinary Technicians (3 credits)**

Principles and practices of surgical nursing; methods and mechanics of the process of sterilization, identification, use and maintenance

of surgical instruments; common surgical procedures. PREREQ: Animal Anatomy and Physiology 1 and 2, Medical Nursing for Veterinary Technicians

**VET221 Animal Parasitology (3 credits)**

Common endo- and ectoparasites, their life cycle, identification, treatment, prevention, and effects on animals; zoonotic and public health concerns and how they relate to parasites; fecal examinations. PREREQ: Introduction to Biology, Animal Anatomy and Physiology 1 and 2

**VET220 Radiography for Veterinary Technicians (3 credits)**

Radiation and ultrasound; x-ray production, film types and development, equipment operation and care, darkroom and developing procedures; radiation safety and preventative measures; positioning the animal for radiograph production. PREREQ: Introduction to Veterinary Technology, Animal Anatomy and Physiology 1 and 2, Medical Nursing for Veterinary Technicians

**VET222 Clinical Parasitology for Veterinary Technicians (3 credits)**

Common endo- and ectoparasites, their life cycle, identification, treatment, prevention, and effects on animals; zoonotic and public health concerns and how they relate to parasites; fecal examinations. PREREQ: Introduction to Biology, Animal Anatomy and Physiology 1 and 2, Medical Nursing for Veterinary Technicians

**VET223 Animal Diseases, Pathology, and Immunology (3 credits)**

Basic disease processes as they relate to various body systems; transmission, diagnosis, treatment, and prevention of diseases that affect domestic animals; healing processes; immunological responses and vaccination types and techniques; zoonosis and preventative measures. PREREQ: Introduction to Biology, Animal Anatomy and Physiology 1 and 2

**VET224 Small and Large Animal Medicine (3 credits)**

Basic disease processes as they relate to various body systems; transmission, diagnosis, treatment, and prevention of diseases that affect domestic animals; healing processes; immunological responses and vaccination types and techniques; zoonosis and preventative

measures. PREREQ: Introduction to Biology, Animal Anatomy and Physiology 1 and 2, Medical Nursing for Veterinary Technicians, Clinical Parasitology for Veterinary Technicians

### **VET225 Animal Nutrition, Reproduction, Genetics, and Aging (3 credits)**

Science of nutrition and its application to feeding practices of domestic, farm, and companion animals; basic nutrients and nutritional requirements of individual species, approximate food analysis, interpretation of food and feed labels, and types of animal foods; physiology of reproduction, aging, and genetics. PREREQ: Medical Mathematics, Animal Anatomy and Physiology 1 and 2

### **VET227 Laboratory Animal Science (3 credits)**

Biomedical research and the ethical considerations centering on the use of laboratory animals in research; state, federal, and local animal welfare regulations; biology, care, utilization, and diseases of commonly used laboratory animals. PREREQ: Introduction to Biology, Animal Anatomy and Physiology 1 and 2, Animal Parasitology

### **VET228 Laboratory Animal Medicine and Nursing (3 credits)**

Biomedical research and the ethical considerations centering on the use of laboratory animals in research; state, federal, and local animal welfare regulations; biology, care, utilization, and diseases of commonly used laboratory animals. PREREQ: Introduction to Biology, Animal Anatomy and Physiology 1 and 2, Clinical Parasitology for Veterinary Technicians, Small and Large Animal Medicine

### **VET229 Veterinary Technician National Examination Review (1 credit)**

Comprehensive review to assist the student in preparation for state and national certifying examinations for the veterinary technician; reviews basic science, clinical practices, diagnostics, and ethical concerns; covers birds, reptiles, laboratory animals, and large and small animal species. PREREQ: Semesters 1–4

### **VET230 Practicum 2 (4 credits)**

The second clinical practicum at a veterinary hospital; be part of the working veterinary team and practice the knowledge and skills acquired from semesters 1 – 4. PREREQ: Practicum 1 and Semesters 3 and 4

### **VET231 Clinical Externship 2 (4 credits)**

The second clinical externship at a veterinary hospital; be part of the working veterinary team and practice the knowledge and skills acquired from semesters 1 – 4. PREREQ: Clinical Externship 1 and Semesters 3 and 4

### **VET250 Veterinary Practice Management (3 credits)**

Students will learn the importance of understanding and implementing laws and requirements in a veterinary practice. Students will also learn the benefits of developing a professional, efficient, and knowledgeable team that provides exceptional customer service to their clients. Additionally, the course will provide students with instructions and information on how to help their practice to grow financially. PREREQ: None

### **VET302 Understanding the Human-Animal Bond (3 credits)**

This course focuses on the bond that is created between animals and their owners. The primary emphasis will be on pets but also includes bonds with many types of animals. Essential components of the bond will be discussed and will include information on how veterinary technicians can work with pet owners to enhance the bond and promote a better quality of life together. Information on pet death, euthanasia, and the grieving process will also be covered.

### **VET303 Preventative Healthcare and Integrative Medicine for Animals (3 credits)**

This course provides a sound understanding of proper preventative health care and rehabilitation for animals. Emphasis will be on the dog and the cat. Concepts to be covered will include current preventative healthcare standards such as proper nutrition, parasite control, and vaccine protocols. Lifelong wellness will be discussed for all life stages during an

animal's life. Current and future integrative medicine procedures for animals will also be covered.

### **VET304 Advanced Animal Medicine and Domestic Animal Species Nursing**

**(3 credits)**

This course will take an in-depth look at many of the common diseases found in companion animal species. One of the major topics in this course is medical and surgical intervention when preventative health strategies didn't work to prevent an animal disease. Another major topic covered is the role of the veterinary technician in assisting the veterinarian in the medical and surgical management of disease. Discussion of diseases will focus on dogs and cats and be organized according to organ systems. Prerequisites: Vet302, SCI300, VET305

### **VET305 Advanced Veterinary Pharmacology**

**(3 credits)**

This course gives the veterinary technician a greater understanding of the science behind the therapeutics used in veterinary medicine today. Understandable explanations will be discussed of the "how" and "why" behind drugs, their actions, their mechanisms, and their problems. Included in the discussions will be clinical case studies of both proper and improper uses of drugs.

### **VET306 Safety and Regulatory Compliance in Veterinary Medicine**

**(1 credit)**

In this course students will learn about specific workplace safety and regulatory compliance topics applicable to veterinary technicians and related to the wider veterinary team. Topics include personal safety hazards, patient safety hazards, building or institutional safety hazards, and current Occupational and Safety Health Administration (OSHA) regulations. Prerequisites: VET250, VET302, VET303, VET304, VET305

### **VET307 Introduction to Research in Veterinary Technology**

**(1 credit)**

This course will prepare the student for finding accurate scientific data and will prepare them for writing their capstone project at the end of the program. Critical thinking and evidence-

based research will be highlighted using current biological issues of importance to society as the vehicle through which learning will occur. Issues may include, but are not limited to, methods of science, ethical issues in science, biological impact of environmental change, genes and genomes, biodiversity and evolution, populations, ecology and conservation of species and natural habitats, sociobiology, reproductive strategies, and the biological basis of cancer, AIDS, and other diseases.

### **VET402 Veterinary Emergency and Critical Care**

**(3 credits)**

In this course, students will take an in-depth look at emergency cases presented in both after-hours emergency practices, as well as in daytime practices. Critical care fundamentals and techniques will be discussed. Specific types of animal emergencies will also be looked at in detail. Prerequisites: VET302, VET304, VET305, VET306

### **VET403 Advanced Animal Anesthesia and Surgical Nursing**

**(3 credits)**

This course integrates surgical anesthesia fundamentals and techniques that allow for humane surgery to be performed on all animal species. A major topic to be discussed is the role of veterinary anesthesia and surgical nursing in working closely with a veterinary surgeon. Other topics to be covered include effective anesthesia protocols for a variety of cases, use of advanced medical and surgical nursing skills preoperatively, as well as peri- and post- operatively, and advanced monitoring techniques. VET302, VET304, VET306

### **VET450 Veterinary Technology Capstone**

**(4 credits)**

This course gives the student the opportunity to explore a Veterinary Technician Specialist (VTS) career pathway or a Certified Veterinary Practice Manager career after graduation from the program. Information learned throughout this program will assist the student in developing this capstone project. Prerequisites: VET250, VET302, VET303, VET304, VET305, VET306, VET307, VET402, VET403

# Ownership, Governance, Administration, and Faculty

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B.S., Penn State University

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- Certified Electronic Health Records Specialist  
- Advanced Certified Patient Account Representative  
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### **Ariel Neves**

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