PROGRAMS OF STUDY

Programs of Study

Advanced Manufacturing and Skilled Trades

Career General Engineering Technologies AAS
Computer Aided Drafting and Design (CADD) CERT
Advanced Manufacturing Technology/Film
Manufacturing Technology CSC
Career Industrial Electronics Technology AAS
Industrial Controls CSC
Industrial Maintenance Electronics CSC
Residential/Commercial/Industrial Electrician CSC
Career Technical Studies: *Specialization:* Motorsports Technology AAS
Motorsports Technician CSC
Automotive Technology CERT
Heating, Ventilation, Air Conditioning & Refrigeration (HVAC) CERT
HVAC CSC
Industrial Welding CERT
Welding CSC
Auto Body Technology CSC
Building Trades Technology CSC
Culinary Arts CSC
HOPE Customer Service CSC
HOPE Food Service CSC
Horticulture CSC
HOPE Logistics CSC
Logistics Supervision CSC
Viticulture CSC

The Arts

DL, Transfer General Studies AA&S
Transfer *Specialization:* Media Design and Production
Media Design and Production CSC
Transfer *Specialization:* Music
Transfer *Specialization:* Performing Arts
Theatre Arts CSC
Transfer *Specialization:* Visual Arts
Art Studies CSC

Business

DL, Transfer Business Administration AA&S
DL, Career Business Technology: Major: Accounting AAS
DL Bookkeeping CERT
Career Business Technology: Major: Administrative Support Technology AAS
Clerical Studies CERT
Office Assisting CSC
Career Business Technology: Major: Administrative Support Technology AAS
Career *Specialization:* Medical Office
Medical Transcription CSC
Office Assisting CSC
DL, Career Business Technology: Major: Management AAS
DL General Business CERT
Management Assistant CSC
Supervision CSC
DL, Career Business Technology: Major: Management AAS
DL, Career *Specialization:* Agribusiness
DL, Career *Specialization:* Culinary and Hospitality Mgmt.
DL, Career *Specialization:* Entrepreneurship/Sm. Business
Entrepreneurial and Small Business Management CSC
Culinary and Hospitality Management CSC
Career Legal Assisting AAS

Health Sciences and Public Safety

Career Administration of Justice AAS
Justice Studies CSC
Career Emergency Medical Services -Paramedic AAS
Emergency Medical Technician-Intermediate CSC
Emergency Medical Technician-Paramedic CSC
Transfer General Studies AA&S
Transfer *Specialization:* Criminal Justice
Career Health Technology: Nursing AAS
DL, Transfer Science AA&S
Transfer *Specialization:* Medical Science
Transfer *Specialization:* Pre-BSN
Health Sciences CERT
Practical Nursing CERT
Therapeutic Massage CERT
Nurse Aide Training CSC
Pharmacy Technician CSC

Information Technology

Transfer General Studies AA&S
Transfer *Specialization:* Information Technology
Career Information Systems Technology AAS
Computer Service Technician CSC
Internet Webmaster CSC
Career Information Systems Technology AAS
Career *Specialization:* Accounting Information Systems
Career *Specialization:* Game Design and Development
Career *Specialization:* Internet Services
Internet Webmaster CSC

Transfer Studies and Education

Career Education Assisting AAS
Early Childhood Education CERT
Early Childhood Instruction CSC
DL, Transfer General Studies AA&S
DL, Transfer *Specialization:* Human Services
DL, Transfer *Specialization:* Recreation, Parks, & Leisure Studies
DL, Transfer *Specialization:* Teacher Education Preparation
DL, Transfer Science AA&S
DL General Education CERT
Infant and Toddler Care CSC

AAS - Associate of Applied Science Degree
AA&S - Associate of Arts and Sciences Degree
CERT – Certificate consisting of 30 or more credits
CSC- Career Studies Certificate consisting of 9 -29 credits
See page 33 for full description of awards offered.

DL = Programs available entirely through distance learning, as well as classroom-based coursework
Career = Associate degree programs designed primarily for employment in the field upon completion
Transfer = Associate degree programs designed primarily to transfer to a 4-year college or university upon completion
HOPE = High Demand Occupational Programs for Employment

GENERAL INFORMATION CONCERNING ACADEMIC PROGRAMS

Associate Degree Programs: PHCC awards associate degrees in arts and sciences and in applied science. Associate of Arts and Science (AA&S) degrees provide the first two years of instruction in major fields that prepare students for transfer to colleges and universities to complete baccalaureate degrees. Students are encouraged to investigate the requirements of the institution to which transfer is anticipated. Associate of Applied Science degrees (AAS) provide knowledge and skills leading to employment in specialized fields.

Certificate Programs: Certificate programs (CERT) are less than two years in length with a major in an occupational area; career studies certificates (CSC) require less than a full year of study in an occupational area. Certificate programs differ from associate degree programs because they are presented at a different educational level and are developed in response to employment needs identified by local curriculum advisory committees. Several of these programs are offered on a part-time, day or night basis for students who are already employed.

Career Studies Certificate Programs: Many students seek post-secondary career programs of study that are less than the conventional one-or two-year programs. The Career Studies Certificate (CSC) program is a response to the needs of many adults within PHCC's service region and is intended to represent the minimum amount of college course work needed in these fields of study. Each of the program options is designed as a distinct "mini-curriculum" within a broader range of adult educational possibilities**.** Career Studies Certificates vary in length and normally amount to the minimum equivalent of one semester of full-time community college work and not more than the equivalent of a year (9-29) credits.

Admission Requirements: Unless special admission requirements are noted under program information, students must meet the general admission requirements established by the college. Students who are not college ready in English or mathematics may be required to complete appropriate developmental education courses.

Other Information: Students planning ahead for transfer curriculums will find it most helpful to have completed college preparatory curriculum courses in high school in areas such as English, mathematics (two units of algebra and one of plane geometry), laboratory science, social studies, and foreign language.

Transfer Information: Any student who plans to transfer should become familiar with the requirements of the major department in the college or university to which the student is considering transfer and also consult the assigned academic advisor before planning a program of study. In order to prepare for junior class standing at a four-year college or university, the student must complete a program that is comparable in length and course content to the first two years of the program at the four-year institution.

Advisors have access to transfer guides from many institutions to assist in selection of courses. Every institution has unique requirements, so the student should investigate the programs of each institution under consideration for transfer. **Students should be particularly careful to select electives that correspond to requirements of the transfer institution.**

Curriculum Requirements: Students must successfully complete all of the requirements (general education and program requirements) listed under the program information to be awarded the specified credential (associate degree, certificate, or career studies certificate) for that program.

Advising Sheet Suggested Schedules: Courses in advising sheets are displayed under the semester in which the courses are regularly offered. It is possible that a course shown on the schedule for a particular semester may not be offered due to low enrollment or other factors.

Awarding of Degrees and Credentials: Students intending to receive a degree, diploma, certificate, or career studies certificate should submit an "Application to Graduate" to the Registrar's office. Degrees and credentials may be automatically awarded to students who successfully meet the requirements for a credential, award, or degree. An award opt out form is available in the Office of the Registrar for students who do not want the award assigned to their academic record.

Graduation Requirements: In order to meet Patrick Henry Community College graduation requirements, all associates-degree students must complete Virginia Community College Core Competency testing. Testing is an ongoing process and will be primarily administered during the capstone course (or other designated course) associated with a given degree. Please see the program advisor to determine and schedule appropriate times to complete Core Competency testing.

General Engineering Technologies

Award: Associate of Applied Science
Length: 67-68 credits

CADD

Award: Certificate
Length: 40 credits

Advanced Manufacturing

Award: Career Studies Certificate
Length: 28 credits

PROGRAM CONTENT COMPARISON					
	General Engineering Technologies (AAS)	**CADD (CERT)**	**Advanced Manufacturing (CSC)**	**Mechatronics Level 1 Concentration (Industry Certification Prep.)**	**Mechatronics Level 2 Concentration (Industry Certification Prep.)**
CST 110 (3)	●				
ENG 111 (3)	●	●			
MTH 103 (3) or MTH 166(4)	●	●			
PHY 201 (4)	●				
PHY 202 (4)	●				
SOC.EEE (3)	●				
SDV 108 (1)	●	●	●		
HLT 105 (1)	●				
EGR 110 (3)	●	●			
EGR 123 (2)	●				
EGR 135 (3)	●				
EGR 136 (3)	●				
EGR 216 (3)	●	●	●		
EGR 298 (1)	●				
MEC 119 (3)	●	●			●
MEC 140 (3)	●		●	●	
MEC 165 (3)	●			●	
SAF 126 (3)	●		●		
Technical Electives (18) select any non-repeat	●	CAD- 201, 202, 203, 232, 233, 241, 242, 243	IND 101, 125, 195, 290, 295; MEC 112	EGR 277; MEC 155, IND 243	ELE 233; ETR 246, 266; IND 181, 295; INS 230

General Engineering Technologies

Award: Associate of Applied Science
Length: 67-68 credits

Purpose: Successful completion of this program provides the knowledge and skills leading to immediate employment in the field of engineering technologies and manufacturing related fields. People who wish to prepare for industry certification or qualify for promotion in a present position to another field may benefit from this program. Students may use their 18 credits of technical electives to explore a variety of technical electives but are strongly urged to pursue a concentration in one of four pathways:

General Education Requirements (20-21 Credits):

CST 110 Introduction to Communication (3)
ENG 111 College Composition I (3)
MTH 103 Applied Technical Mathematics (3)
[or MTH 166 Precalculus with Trigonometry(4)]
PHY 201 General College Physics I (4)
PHY 202 General College Physics II (4)
Social Science Elective (3) *See page 161-163*

Core Program Requirements (29 Credits):

EGR 110 Engineering Graphics (3)
EGR 123 Introduction to Engineering Design (2)
EGR 136 Strength of Materials for Engineering Technology (3)
EGR 135 Statics for Engineering Technology (3)
EGR 216 Computer Methods in Engineering (3)

EGR 298 Seminar and project (1)
HLT 105 Cardiopulmonary Resuscitation (1)
MEC 119 Basic CNC and CAM (3)
MEC 140 Introduction to Mechatronics (3)
MEC 165 Applied Hydraulics, Pneumatics and Hydrostatics (3)
SAF 126 Principals of Industrial Safety (3)
SDV 108 College Survival Skills (1)

Technical Electives (18 Credits)

Students may choose from ANY of these 18 technical electives OR may choose to complete one of the three pathways to a certification. Some prerequisites may be required

CADD Certification	Advanced Manufacturing	Mechatronics Level I and II Industry Certification prep.
CAD 201 Computer Aided Drafting and Design I (3) CAD 243 Parametric Solid Modeling III (3) CAD 202 Computer Aided Drafting and Design II (3) CAD 203 Computer Aided Drafting and Design III (3) CAD 241 Parametric Modeling I (3) CAD 232 Computer Aided Drafting II (3) CAD 233 Computer Aided Drafting III (3) CAD 242 Parametric Modeling II (3)	IND 195 Introduction to Manufacturing and Advanced Film Technology (3) IND 101 Quality Assurance Technology (3) MEC 112 Processes of Industry (3) IND 125 Installation and Preventive Maintenance (3) IND 295 Topics in Advanced Film Technology (3) IND 290 Coordinated Internship (3)	EGR 277 Digital Logic (3) IND 181 World Class Manufacturing (3) IND 243 Principles and Applications of Mechatronics (3) IND 246 Industrial Robotics Programming (3) MEC 155 Mechanisms (3)

Minimum required for degree: 67-68 Credits

<u>Students should consult their faculty advisor to discuss program options</u>.

Potential Industry Certifications:
A student may elect to take an industry specific certification/ license exam. Examinations generally require a testing fee paid by the student. After completion of this program, a student will be academically prepared to take the following exams:

- CADD Certification pathway-**Autodesk Certified User for Inventor**, **Autodesk Certified User for Revit**
- Advanced Manufacturing pathway -**Certified Production Technician**
- Mechatronics preparation pathway-
  - Level 1: **Siemens Certified Mechatronic Systems Assistant**
  - Level 2: **Siemens Certified Mechatronic Systems Associate**

Occupational Objectives:
The associate degree in engineering technology qualifies graduates for an entry-level position as a technician. Concentration in one of the three pathways will prepare a graduate for more specific roles such as engineer's assistant, supervisor trainee, manufacturing specialist, quality assurance auditor, CAD technician, maintenance lead person, team leader, and computer controlled process technician.

Advancement Options:
Program specializations offer Siemens Mechatronic System Certification. Old Dominion University offers Graduates of this program advanced credit transfer options for completing a baccalaureate degree.

Core Program Learning Outcomes: A student will be able to:

- Apply basic principles of engineering design.
- Demonstrate effective engineering communication skills in geometric analysis and spatial relationships of fundamental geometric elements; points, lines, planes and solids.
- Demonstrate proficiency in mathematical skills to calculate static equilibrium and perform structural analysis on rigid bodies.
- Demonstrate proficiency in scientific reasoning to understand the engineering design process through the basics of hydraulic, electrical, computer, and mechanical systems.
- Demonstrate advanced level experience in using a computer as a tool for solving technical problems and performing office functions.

Students are encouraged to enroll early for **summer semester classes** to satisfy general studies and core course program degree requirements.

CADD

Award: Certificate
Length: 40 credits

Purpose: Students will learn to use advanced computer workstations with various CADD software applications. Students will receive instruction and practice in the planning, design, and preparation of high quality technical drawings for a variety of projects. In addition to technical courses, there are supporting courses in communications, mathematics, and social science. These courses serve to broaden the student's general education background and thus better prepare students for employment and advancement in the career field.

Program Learning Outcomes: Program graduates have generic and specific occupational skills to be competitive in

technical drawing creation and manipulation positions (CADD positions) in a variety of manufacturing, engineering, architectural and civil settings. Graduates demonstrate proficiency in 21st Century skills and use of current technological tools of the profession.

Occupational Objectives: Graduates may seek immediate employment or continue their education in the General Engineering Technology Degree program at PHCC. The curriculum is designed to provide educational background and skills training that would be required for students seeking employment in entry level architectural and industrial drafting such as architectural drafting technician, engineering drafting technician, engineering assistant, CAD operator or CAD drafter.

General Education Requirements (7 Credits):

ENG 131 Technical Report Writing I (3)
[or ENG 111 College Composition I (3)]
MTH 103 Applied Technical Mathematics (3)
SDV 108 College Survival Skills (1)

Program Requirements (33 Credits):

CAD 201 Computer Aided Drafting and Design I (3)
CAD 243 Parametric Solid Modeling III (3)
CAD 202 Computer Aided Drafting and Design II (3)
CAD 203 Computer Aided Drafting and Design III (3)
MEC 119 Introduction to Basic CNC and CAM (3)
CAD 232 Computer Aided Drafting II (3)
CAD 233 Computer Aided Drafting III (3)
CAD 241 Parametric Modeling I (3)
CAD 242 Parametric Modeling II (3)
EGR 110 Engineering Graphics (3)
EGR 216 Computer Methods in Engineering Technology (3)

Minimum required for certificate: 40 credits

Advanced Manufacturing

Award: Career Studies Certificate
Length: 28 credits

Purpose: This program is provided to meet the demands for an emerging technical workforce and is a direct response to local workforce and industry demand. Therefore, implementation of this program will expand employment and educational opportunities for area citizens.

Program Learning Outcomes: A student will be able to:

- Demonstrate knowledge of safety, quality practices, processes and procedures, and preventive maintenance within the manufacturing production environment.
- Demonstrate proficiency in applied mathematics, reading for information, and locating information.
- Demonstrate understanding of and proficiency in machine operations especially those relevant to advanced films manufacturing, including coating, laminating, and web handling.

IND 101 Quality Assurance Technology I (3)
IND 125 Installation and Preventive Maintenance (3)
IND 195 Introduction to Manufacturing and Advanced Films Technology (3)
IND 290 Coordinated Internship (3)
IND 295 Topics in Advanced Films Technology (3)
EGR 216 Computer Methods in Engineering & Technology (3)
MEC 112 Processes of Industry (3)
MEC 140 Introduction to Mechatronics (3)
SAF 126 Principles of Industrial Safety (3)
SDV 108 College Survival Skills (1)

Students must complete the above 28 credit hours to be awarded the Career Studies Certificate in Advanced Manufacturing with specialization in Advanced Films Technology.

Advising Sheet Suggested Schedules: Courses in advising sheets are displayed under the semester in which the courses are regularly offered. It is possible that a course shown on the schedule for a particular semester may not be offered due to low enrollment or other factors.

Advising Sheet for AAS: General Engineering Technologies 2016-17

Developmental English Pre-requisites met: _____yes _____no			
Required	ENF1	ENF2	ENF3
Met			

Developmental Math Pre-requisites met: _____yes _____no			
Required	MOD1	MOD2	MOD3
Met			

Fall Semester Courses:			**Completed**
ENG.111	College Composition I	3.0	_____
MTH.103 or MTH.166	Applied Technical Mathematics/Precalculus with Trigonometry	3.0-4.0	_____
SAF.126	Industrial Safety	3.0	_____
MEC.140	Introduction to Mechatronics	3.0	_____
SDV.108	College Survival Skills	1.0	_____
TEC.EEE	Technical Elective	3.0	_____
	Total	16-17	

Next Actions which follow or can be accomplished during the First Semester

1. During Early Bird Registration, meet with academic advisor to enroll in the spring semester

Spring Semester Courses:			**Completed**
EGR.123	Introduction to Engineering Design	2.0	_____
EGR.216	Computer Methods in Engineering	3.0	_____
CST.110	Introduction to Communication	3.0	_____
EGR.110	Engineering Graphics	3.0	_____
TEC.EEE	Technical Elective	6.0	_____
	Total	17	

Next Actions which follow or can be accomplished during the Second Semester

1. During Early Bird Registration, meet with academic advisor to enroll in the summer and fall semesters.

Fall Semester Courses:			**Completed**
EGR 135	Statics for Engineering Technology	3.0	_____
PHY.201	General College Physics I	4.0	_____
MEC.165	Applied Hydraulics, Pneumatics and Hydrostatics	3.0	_____
HLT.105	Cardiopulmonary Resuscitation	1.0	_____
SOC.EEE	Social Science Elective	3.0	_____
TEC.EEE	Technical Elective	3.0	_____
	Total	17	

Next Actions which follow or can be accomplished during the Third Semester

1. During Early Bird Registration, meet with academic advisor to enroll in the spring semester
2. Meet with academic advisor or transfer advisor to discuss four-year transfer options.
3. Meet with Experiential Learning Coordinator to prepare resume, plan internships, and/or receive assistance with job search.
4. Apply for degree graduation.

Spring Semester Courses:			**Completed**
EGR.136	Strength of Materials for Engineering Technology	3.0	_____
MEC.119	Basic CNC and CAM	3.0	_____
PHY.202	General College Physics II	4.0	_____
EGR.298	Seminar and Project	1.0	_____
TEC.EEE	Technical Elective	6.0	_____
	Total	17	

Industrial Electronics Technology

Award: Associate of Applied Science
Length: 66 credits

Industrial Controls

Award: Career Studies Certificate
Length: 24 credits

Industrial Maintenance Electronics

Award: Career Studies Certificate
Length: 24 credits

Residential/Commercial/Industrial Electrician

Award: Career Studies Certificate
Length: 22 credits

PROGRAM CONTENT COMPARISONS				
	Industrial Electronics Technology (AAS)	**Industrial Controls (CSC)**	**Industrial Maintenance Electronics (CSC)**	**Residential/Commercial/ Industrial/Electrician (CSC)**
CST 110 (3)	●			
ENG 111 (3) or ENG 131 (3)	●			
MTH 103 (3)	●			
Humanities Elective (3)	●			
Social Science Elective (3)	●			
ETR or ELE Elective (3)	●	●	●	●
EGR 110 (3) or ELE 110 (3)	●			●
EGR 216 (3)	●		●	
EGR 277 (3)	●	●		
ELE 113 (3)	●	●	●	●
ELE 156 (3)	●		●	●
ETR 141 (3)	●		●	
ETR 142 (3)	●		●	
ETR 150 (3)	●	●		●
ETR 230 (3)	●			
ETR 266 (3)	●	●		
ETR 281 (3) or ETR 168 (3)	●	●	●	
ETR 298 (1)	●			
HLT 105 (1)	●			●
INS 230 (3)	●	●		●
MEC 140 (3)	●			●
MEC 155 (3)	●		●	
MEC 165 (3)	●	●		
SDV 108 (1)	●			

Industrial Electronics Technology

Award: Associate of Applied Science
Length: 66 credits

Purpose: The focus of this program is to provide highly skilled industrial technicians for a regional workforce. Qualified electronic technicians are needed in ever increasing numbers to assist local business and industry in taking full advantage of computerized systems, automation, and controls. The manufacturing environment of the 21st century integrates several advanced technologies including sensors, transducers, automated controls, programmable logic controls, motor control circuits, motor drives, pneumatics, microprocessors, computer hardware, and software applications. A strong educational background is required to install, maintain, troubleshoot, and repair such advanced systems.

Program Learning Outcomes: A student will be able to:

- Demonstrate proficiency in oral communication.
- Demonstrate effective written communication skills.
- Demonstrate proficiency in mathematical skills to solve problems.
- Demonstrate proficiency in scientific reasoning.
- Demonstrate proficiency in information technology.
- Demonstrate the ability to reason critically and apply logic to solve problems.
- Students will receive training in PLC's that will enable them to write a ladder program with two inputs and one output.
- Students will learn schematic symbols that apply to building a circuit with electronic devices on a bread board from a schematic diagram.
- Three phase motor structure and function will be emphasized to enable students to wire a single start-stop control station wit h a motor starter from a line diagram.

Potential Certifications: Students will have the opportunity to earn a number of industry recognized certifications designed to enhance their abilities and ultimately improve their performance in specialized areas. All certifications listed below are offered through Siemens, the industry leader in automation.
NOTE: (Students will be responsible for testing fees).

*Siemens Certification in Level 1 Mechatronics
*Siemens Certification in Level 2 Mechatronics
*Siemens Certification in Programmable Logic Controllers
*Siemens Certification in Variable Frequency Drives

Occupational Objectives: Employment opportunities for graduates of this program include positions as electronics technician, industrial electronics technician or service technician.
Admission

General Education Requirements (15 Credits):

CST	110	Introduction to Communication (3)
ENG	111	College Composition I (3)
		[or ENG 131 Technical Writing (3)]
MTH	103	Applied Technical Mathematics I (3)
Humanities Elective (3)		*See page 161-163*
Social Science Elective (3)		*See page 161-163*

Program Requirements (51 Credits):

EGR	110	Engineering Graphics (3)
		[or ELE 110 Home Electric Power (3)]
EGR	216	Computer Methods in Engineering (3)
EGR	277	Digital Logic (3)
ELE	113	Electricity I (3)
ELE	156	Electrical Control Systems (3)
ETR	141	Electronics I (3)
ETR	142	Electronics II (3)
ETR	150	Machine Control Using Relay & Programmable Logic (3)
ETR	230	Mechatronic Process Control (3)
ETR	266	Microprocessor Applications (3)
ETR	281	Digital Systems (3) or ETR 168 Digital Circuit Fundamentals (3)
ETR	298	Seminar and Project (1)
HLT	105	Cardiopulmonary Resuscitation (1)
INS	230	Instrumentation I (3)
MEC	140	Introduction to Mechatronics (3)
MEC	155	Mechanisms (3)
MEC	165	Applied Hydraulic, Pneumatics and Hydrostatics (3)
SDV	108	College Survival Skills (1)
ETR or ELE Elective (3)		*See page 161-163*

Minimum required for degree: 66 Credits

Industrial Controls

Award: Career Studies Certificate
Length: 24 credits

Purpose: This program is designed to prepare students for Siemens PLC certification. Students will also receive skills needed for installation, maintenance and repair of advanced technology production equipment.

Program Learning Outcomes: Graduates will have fundamental skills for installation and repair of electrical control systems. Graduates will demonstrate proficiency in programmable logic controllers and mechatronic process controls.

EGR	277	Digital Logic (3)*
ELE	113	Electricity I (3)
ELE	233	Programmable Logic Controller Systems I (3)*
ETR	150	Machine Control (3)
ETR	168	Digital Systems (3)
ETR	266	Microprocessor Applications (3)*
INS	230	Instrumentation (3)*
MEC	165	Applied Hydraulics and Pneumatics (3)*

Students must complete the above 24 credits to be awarded the Career Studies Certificate in Industrial Controls.

Industrial Maintenance Electronics

Award: Career Studies Certificate

Purpose: This program is designed to prepare students for Siemens VFD certification. Students will also receive skills and knowledge needed for maintenance and repair of modern production equipment.

Program Learning Outcomes: Graduates will have fundamental skills for installation and repair of electrical systems. Graduates will demonstrate proficiency in machine technology and mechanical systems maintenance.

EGR	216	Computer Methods/ Engineering and Tech. (3)
ELE	113	Electricity I (3)
ELE	156	Electrical Control Systems (3)
ETR	141	Electronics I (3)
ETR	168	Digital Systems (3)
ETR	142	Electronics II (3)
ETR	246	Electronic Motor Drive Systems (3)*****
MEC	155	Mechanisms (3)*****

***** *denotes classes required for Mechatronics certification*

Student must complete the above 24 credits to be awarded the Career Studies Certificate in Industrial Maintenance Electronics.

Residential/Commercial/Industrial Electrician

Award: Career Studies Certificate
Length: 22 credits

Purpose: This program is designed to provide skills for entry-level positions in the practice of electrical servicing and preparation of the National Electrical Code Examination.

Program Learning Outcomes: Graduates will have fundamental skills for entry-level electrical installation and repair. Graduates will demonstrate proficiency in electrical codes, OSHA safety criteria, wiring circuits and mechatronic system troubleshooting.

ELE	110	Home Electric Power (3)
ELE	113	Electricity I (3)
ELE	156	Electrical Control Systems (3)
ELE	138	National Electric Code (3)
ETR	150	Machine Control Using Relay & Programmable Logic (3)
HLT	105	Cardiopulmonary Resuscitation (1)
INS	230	Instrumentation I (3)
MEC	140	Introduction to Mechatronics (3)

Students must complete the above classes for a total of 22 credits to be awarded the Career Studies Certificate in Residential/Commercial/Industrial Electrician.

Advising Sheet Suggested Schedules: Courses in advising sheets are displayed under the semester in which the courses are regularly offered. It is possible that a course shown on the schedule for a particular semester may not be offered due to low enrollment or other factors.

Advising Sheet for AAS: Industrial Electronics Technology 2016-17

Developmental English Pre-requisites met: _____yes _____no			
Required	ENF1	ENF2	ENF3
Met			

Developmental Math Pre-requisites met: _____yes _____no									
Required	MOD1	MOD2	MOD3						
Met									

Fall Semester Courses:			**Completed**
ELE.113	Electricity I	3.0	_____
ETR.141	Electronics I	3.0	
ETR.168	Digital Circuit Fundamentals	3.0	
MEC.140	Introduction to Mechatronics	3.0	_____
MEC.155	Mechanisms	3.0	
SDV.108	College Survival Skills	1.0	
		Total 16	

Next Actions which follow or can be accomplished during the First Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester

Spring Semester Courses:			**Completed**
EGR.277	Digital Logic	3.0	
ELE.110	Home Electric Power	3.0	_____
ELE.156	Electrical Control Systems	3.0	_____
ENG.111	College Composition I	3.0	
ETR.142	Electronics II	3.0	_____
ETR/ELE EEE (3)	Electronics/Electricity Elective	3.0	_____
		Total 18	

Next Actions which follow or can be accomplished during the Second Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester

Fall Semester Courses:			**Completed**
EGR.216	Computer Methods in Engineering	3.0	_____
ETR.266	Microprocessor Applications	3.0	
HLT.105	Cardiopulmonary Resuscitation	3.0	_____
HUM.EEE	Humanities Elective	3.0	_____
MEC.165	Applied Hydraulic, Pneumatics and Hydrostatics	3.0	
MTH.103	Applied Technical Mathematics I	1.0	_____
		Total 16	

Next Actions which follow or can be accomplished during the Third Semester
1. During Early Bird Registration, meet with academic advisor to enroll in the spring semester
2. Meet with academic advisor or transfer advisor to discuss four-year transfer options.
3. Meet with Experiential Learning Coordinator to prepare resume, plan internships, and/or receive assistance with job search.
4. Apply for degree graduation.

Spring Semester Courses:			**Completed**
CST.110	Introduction to Communication	3.0	_____
ETR.150	Machine Control Using Relay & Programmable Logic	3.0	_____
ETR.230	Mechatronic Process Control	3.0	_____
ETR.298	Seminar and Project	1.0	_____
INS.230	Instrumentation I	3.0	_____
SOC.EEE	Social Science Elective	3.0	_____
		Total 16	

Technical Studies: Motorsports Technology

Award: Associate of Applied Science
Length: 66-67 credits

Motorsports Technician

Award: Career Studies Certificate
Length: 25-26 credits

	Motorsports Technology (AAS)	Motorsports Technician (CSC)
ENG.111 (3)	●	
MTH.103 (3) or MTH.166(4)	●	●
CAD.241 (3) or PHY.201 (4)	●	
CST.110 (3)	●	
SOC.EEE (3)	●	
ITE.115 (3)	●	
MTS.126 (3)	●	●
MTS.130 (3)	●	●
MTS.131 (3)	●	●
MTS.132 (3)	●	
MTS.135 (3)	●	
MTS.140 (3)	●	●
MTS.210 (3)	●	●
MTS.211 (3)	●	●
MTS.240 (3)	●	
MTS.295 (3)	●	●
MTS.295 (3)	●	
MTS.298 (3)	●	
MTS.299 (1)	●	
MTS.EEE (3)	●	
MTS.EEE (3)	●	
MTS.EEE (3)	●	
PED/HLT EEE (1)	●	
SDV 108 (1)	●	●

Technical Studies: Motorsports Technology

Award: Associate of Applied Science
Length: 66-68 credits

Purpose: To provide a rapid response to an anticipated workforce shortage for the motorsports industry within the mid-Atlantic region. The student will be engaged in mastering the academic and technical skill sets required for employment.

Program Learning Outcomes: A student will be able to:

- Demonstrate knowledge of auto racing and race vehicles, their characteristics, specifications, rules, regulations, systems, current technology, and testing methods.
- Demonstrate knowledge about components, systems, configuration, classification, terminology, and principles of functioning of high performance engines used in race competitions.
- Using codes and specifications, demonstrate the ability to assemble, test, and apply corrective methods to resolve technical issues related to maximum power performance of race engines.
- Demonstrate knowledge of aerodynamics, stability, and control of race vehicles, and the ability to design, model, and fabricate structures and bodies of race vehicles using blueprints and safety specifications.
- Demonstrate knowledge of engineering materials, manufacturing processes, and testing techniques, and skill to conceive fabricate and/or assemble suspension, traction, steering and braking systems of race vehicles.

Occupational Objectives: Employment opportunities for graduates of this program include chassis technician, set-up assistant, crew member, block assembly assistant, engine builder, or engine machine technician in racing environments.

Admission Requirements: Students may be required to complete a Motorsports Program Application, entrance test and interview. Students deficient in computer skills and/or fundamental motorsports terminology must complete additional coursework. Tools for the program are required.

General Education Requirements (15-17 Credits):

CST	110	Introduction to Communication (3)
ENG	111	College Composition I (3)
MTH	103	Applied Technical Mathematics I (3)
		[or MTH 166 Precalculus with Trigonometry (4)]
CAD	241	Parametric Solid Modeling I (3)
		[or PHY 201 General College Physics I (4)]

Social Science Elective (3) *See page 161-163.*

Program Requirements (51 Credits):

ITE	115	Intro. to Computer Applications & Concepts (3)
MTS	126	Motorsports Technology II (3)
MTS	130	Motorsports Structural Technology I (3)
MTS	131	Motorsports Structural Technology II (3)
MTS	132	Motorsports Structural Technology III (3)
MTS	135	Sheet Metal Fabrication (3)
MTS	140	Stock Car Engines I (3)
MTS	210	Race Car Setup I (3)
MTS	211	Race Car Setup II (3)
MTS	240	Stock Car Engines II (3)
MTS	295	Machining and Welding (3)
MTS	295	Introduction to Pit Stop (3)
MTS	298	Dyno Engine Performance (3)
MTS	299	Supervised Study in Motorsports (1)
MTS		Electives (9)
PED/HLT		Elective (1) (PED EEE) *See page 161-163.*
SDV	108	College Survival Skills (1)

Minimum required for degree: 66-68 credits

Motorsports Technician

Award: Career Studies Certificate
Length: 25-26 credits

Purpose: This program is designed to provide fundamental skills for an entry-level technician in a high performance race shop.

MTH	103	Applied Technical Mathematics I (3)
		[or MTH 166 Precalculus with Trigonometry (4)]
MTS	126	Motorsports Technology II (3)
MTS	130	Motorsports Structural Technology I (3)
MTS	131	Motorsports Structural Technology II (3)
MTS	140	Stock Car Engines I (3)
MTS	210	Race Car Setup I (3)
MTS	211	Race Car Setup II (3)
MTS	295	Machining and Welding (3)
SDV	108	College Survival Skills (1)

Minimum required for the career studies certificate: 25-26 credits.

Advising Sheet Suggested Schedules: Courses in advising sheets are displayed under the semester in which the courses are regularly offered. It is possible that a course shown on the schedule for a particular semester may not be offered due to low enrollment or other factors.

Advising Sheet for Technology Studies: Motorsports Technology 2016-17

Developmental English Pre-requisites met: _____yes _____no			
Required	ENF1	ENF2	ENF3
Met			

Developmental Math Pre-requisites met: _____yes _____no									
Required	MOD1	MOD2	MOD3	MOD4	MOD5	MOD6	MOD7	MOD8	MOD9
Met									

Program Prerequisites before being accepted into the program:
MTS 95 (co-requisite if not tested out)

Note: Classes that are shaded meet the requirements of the Career Studies Certificate in Motorsports Technician.

Fall Semester Courses:			**Completed**
ENG.111	College Composition I	3.0	_____
MTH.103	Applied Technical Mathematics I	3.0	_____
MTS.130	Motorsports Structural Technology I	3.0	_____
MTS.210	Race Car Setup I	3.0	_____
MTS.295	Machining and Welding	3.0	_____
SDV.108	College Survival Skills	1.0	_____
	Total	16	

Next Actions which follow or can be accomplished during the First Semester

1.During Early Bird Registration, meet with academic advisor to enroll in next semester

Spring Semester Courses:			**Completed**
CST.110	Introduction to Speech Communication	3.0	_____
ITE.115	Introduction to Computer Applications and Concepts	3.0	_____
MTS.131	Motorsports Structural Technology II	3.0	_____
MTS.126	Motorsports Technology II	3.0	_____
MTS.140	Stock Car Engines I	3.0	_____
MTS.211	Race Car Setup II	3.0	_____
	Total	18	

Next Actions which follow or can be accomplished during the Second Semester

1.During Early Bird Registration, meet with academic advisor to enroll in next semester

Fall Semester Courses:			**Completed**
CAD.241	Parametric Solid Modeling I	3.0	_____
MTS.132	Motorsports Structural Technology III	3.0	_____
MTS.135	Sheet Metal Fabrication	3.0	_____
MTS.240	Stock Car Engines	3.0	_____
MTS.298	Topics In	3.0	_____
	Total	15	

Next Actions which follow or can be accomplished during the Third Semester

1. During Early Bird Registration, meet with academic advisor to enroll in next semester
2. Apply for graduation.
3. Meet with program faculty to prepare resume, plan internships, and/or receive assistance with job search.

Spring Semester Courses:			**Completed**
MTS.295	Introduction to Pit Stop	3.0	_____
MTS.Elective	Motorsports Elective	3.0	_____
MTS.Elective	Motorsports Elective	3.0	_____
MTS.Elective	Motorsports Elective	3.0	_____
MTS.299	Supervised Study In	1.0	_____
SOC.EEE	Social Science Elective	3.0	_____
Wellness Elective		1.0	_____
	Total	17	

Automotive Technology

Award: Certificate
Length: 48 credits

Purpose: This program provides entry-level skills and knowledge for employment in the Automotive Industry and advanced skills for individuals currently employed in the field.

Program Learning Outcomes:

- Operative precision automotive diagnostic repair equipment
- Diagnose mechanical malfunctions and performance problems and make necessary repairs
- Diagnose and service a variety of automotive systems including electrical, brakes, engines, and steering and suspension
- Demonstrate proficiency in equipment skills and safety regulations relating to the automotive industry

Industry Certification: A program graduate will be prepared for the ASE examination and certification.

General Education Requirements (9 Credits):

ENG	131	Technical Report Writing I (3)
		[or ENG 111 College Composition I (3)]
MTH	120	Introduction to Mathematics (3)
ITE	115	Intro. Computer Applications & Concepts (3)

Program Requirements (39 Credits):

AUT	111	Automotive Engines I (3)
AUT	121	Automotive Fuel systems I (3)
AUT	125	Anti-Pollution Systems (3)
AUT	161-162	Automotive Diagnosis I & II (6)
AUT	165	Auto Diagnosis and Tune-Up (2)
AUT	190	Coordinated Internship (1)
AUT	215	Emissions Systems Diagnosis and Repair (2)
AUT	236	Automotive Climate Control (4)
AUT	241	Automotive Electricity I (3)
AUT	245	Automotive Electronics (3)
AUT	265	Automotive Braking System (3)
AUT	266	Auto Alignment, Suspension & Steering (3)
AUT	275	Shop Management (2)
SDV	108	College Survival Skills (1)

Minimum required for certificate: 48 credits

Advising Sheet Suggested Schedules: Courses in advising sheets are displayed under the semester in which the courses are regularly offered. It is possible that a course shown on the schedule for a particular semester may not be offered due to low enrollment or other factors.

Advising Sheet for Certificate: Automotive Technology 2016-17

Developmental English Pre-requisites met: _____yes _____no			
Required	ENF1	ENF2	ENF3
Met			

Developmental Math Pre-requisites met: _____yes _____no			
Required	MOD1	MOD2	MOD3
Met			

Fall Semester Courses:		**Completed**
ENG.131	Technical Report Writing I	3.0 _____
AUT.111	Automotive Engines I	3.0 _____
AUT.121	Automotive Fuel Systems I	3.0 _____
AUT.265	Automotive Braking System	3.0 _____
MTH.120	Introduction to Mathematics	3.0 _____
SDV.108	College Survival Skills	1.0 _____
	Total	16

Next Actions which follow or can be accomplished during the First Semester

1. During Early Bird Registration, meet with academic advisor to enroll in next semester

Spring Semester Courses:		**Completed**
AUT.125	Anti-Pollution Systems	3.0 _____
AUT.161	Automotive Diagnosis I	3.0 _____
AUT.215	Emissions Systems Diagnosis and Repair	2.0 _____
AUT.236	Automotive Climate Control	4.0 _____
AUT.241	Automotive Electricity I	3.0 _____
AUT.275	Shop Management	2.0 _____
	Total	17

Next Actions which follow or can be accomplished during the Second Semester

1.During Early Bird Registration, meet with academic advisor to enroll in next semester.
2. Apply for graduation.
3. Discuss eligibility for industry credential completion with academic advisor.
4. Meet with Experiential Learning Coordinator to prepare resume, plan internships, and/or receive assistance with job search.

Fall Semester Courses:		**Completed**
AUT.162	Automotive Diagnosis	3.0 _____
AUT.165	Auto Diagnosis and Tune-Up	2.0 _____
AUT.245	Automotive Electronics	3.0 _____
AUT.266	Auto Alignment, Suspension and Steering	3.0 _____
AUT.190	Coordinated Internship	1.0 _____
ITE.115	Introduction to Computer Applications and Concepts	3.0 _____
	Total	15

Heating, Ventilation, Air Conditioning and Refrigeration

Award: Certificate
Length: 46 credits

Heating, Ventilation, Air Conditioning and Refrigeration

Award: Career Studies Certificate
Length: 28 credits

	HVAC (CERT)	HVAC (CSC)
ENG.131 (3)	●	
MTH.120 (3)	●	
HLT.100 (2)	●	
ITE.115 (3)	●	
AIR.117 (3)	●	●
AIR.121 (4)	●	●
AIR.134 (4)	●	●
AIR.154 (3)	●	●
AIR.200 (3)	●	
AIR.235 (3)	●	●
AIR.238 (3)	●	●
AIR.253 (3)	●	
AIR.257 (3)	●	●
AIR.299 (2)	●	●
ELE.115 (3)	●	●
SDV.108 (1)	●	

Heating, Ventilation, Air Conditioning and Refrigeration

Award: Certificate
Length: 46 credits

Purpose: This program provides the student with entry-level skills for employment in residential, commercial and industrial fields. It also provides advanced and upgraded training for those presently employed. Theoretical classroom experiences as well as hands on experience are utilized.

Program Learning Outcomes:

- Demonstrate skills in proper refrigerant handling.
- Demonstrate skills of hands-on use of tools and principles to build working projects.
- Demonstrate skills in layout basic fittings and duct systems.
- Demonstrate ability to read and draw diagrams, evaluate components, analyze circuits and controls of a system, and complete servicing of the system.

Potential Certification: A student may elect to take an industry- specific certification exam. The examinations generally require a testing fee paid by the student. After completion of this program, a student will be academically prepared to take the following examination:

- EPA 608 certification.
- Universal R-410A certification.
- NCCER certifications in HVAC.

Occupational Objectives: Graduates qualify for positions with residential contractors, commercial installers and industrial HVAC maintenance mechanics.

HVAC

Award: Certificate
Length: 45 credits

General Education Requirements (11 Credits):

ENG 131 Technical Report Writing I (3)
[or ENG 111 College Composition I (3)]
HLT 100 First Aid & Cardiopulmonary Resuscitation (2)
ITE 115 Introduction to Computer Applications & Concepts (3)
MTH 120 Introduction to Mathematics (3)

Program Requirements (35 Credits):

AIR 117 Metal Layout I (3)
AIR 121 Air Conditioning and Refrigeration I (4)
AIR 134 Circuits and Controls I (4)
AIR 154 Heating Systems I (3)
AIR 200 Hydronics (3)
AIR 235 Heat Pumps (3)
AIR 238 Advanced Troubleshooting and Service (3)
AIR 253 Air Conditioning Systems III (3)
AIR 257 Gas Fired Warm Air Furnaces (3)
AIR 299 Supervised Study in HVAC (2)
ELE 115 Basic Electricity (3)
SDV 108 College Survival Skills (1)

Minimum required for degree: 46 Credits

Heating, Ventilation, Air Conditioning and Refrigeration

Award: Career Studies Certificate
Length: 28 credits

AIR 117 Metal Layout I (3)
AIR 121 Air Conditioning and Refrigeration I (4)
AIR 134 Circuits and Controls I (4)
AIR 154 Heating Systems I (3)
AIR 235 Heat Pumps (3)
AIR 238 Advanced Troubleshooting and Service (3)
AIR 257 Gas Fired Warm Air Furnaces (3)
AIR 299 Supervised Study in HVAC (2)
ELE 115 Basic Electricity (3)

Minimum required for degree: 28 Credits

Advising Sheet Suggested Schedules: Courses in advising sheets are displayed under the semester in which the courses are regularly offered. It is possible that a course shown on the schedule for a particular semester may not be offered due to low enrollment or other factors.

Advising Sheet for Certificate: HVAC 2016-17

Developmental English Pre-requisites met: _____yes _____no			
Required	ENF1	ENF2	ENF3
Met			

Developmental Math Pre-requisites met: _____yes _____no			
Required	MOD1	MOD2	MOD3
Met			

Note: Classes that are shaded meet the requirements of the Career Studies Certificate in HVAC.

Fall Semester Courses:			**Completed**
AIR.121	Air Conditioning and Refrigeration	4.0	_____
AIR.154	Heating Systems I	3.0	_____
ENG.131	Technical Report Writing I	3.0	_____
ELE.115	Basic Electricity	3.0	_____
MTH.120	Introduction to Mathematics	3.0	_____
SDV.108	College Survival Skills	1.0	_____
		Total 17	

Next Actions which follow or can be accomplished during the First Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester

Spring Semester Courses:			**Completed**
AIR.134	Circuits and Controls I	4.0	_____
AIR.200	Hydronics	3.0	_____
AIR.235	Heat Pumps	3.0	_____
AIR.257	Gas Fired Warm Air Furnaces	3.0	_____
		Total 13	

Next Actions which follow or can be accomplished during the Second Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester
2. Meet with program faculty to prepare resume, plan internships, and/or receive assistance with job search.
3. Apply for degree graduation.

Fall Semester Courses:			**Completed**
AIR.117	Metal Layout I	3.0	_____
AIR.238	Advanced Troubleshooting and Service	3.0	_____
AIR.253	Air Conditioning Systems III	3.0	_____
AIR.299	Supervised Study in HVAC	2.0	_____
HLT.100	First Aid and Cardiopulmonary Resuscitation	2.0	_____
ITE.115	Introduction to Computer Applications & Concepts	3.0	_____
		Total 16	

Industrial Welding

Award: Certificate
Length: 38 credits

Welding

Award: Career Studies Certificate
Length: 19 credits

	Welding (CERT)	Welding (CSC)
ENG.131 (3)	●	
MTH.120 (3)	●	
HLT.100 (2)	●	
WEL.117 (3)	●	●
WEL.123 (4)	●	●
WEL.124 (4)	●	●
WEL.126 (3)	●	
WEL.130 (3)	●	●
WEL.141 (3)	●	
WEL.145 (3)	●	●
WEL.150 (2)	●	●
WEL.198 (4)	●	
SDV.108 (1)	●	

Industrial Welding

Award: Certificate
Length: 38 credits

Purpose: The curriculum is designed to provide skills and knowledge in general and specialized welding.

Program Learning Outcomes:

- Demonstrates ability of Skills in FCAW (Flux Core Arc Welding)
- Demonstrates ability of Skills in GMAW (Gas Metal Arc Welding)
- Demonstrates ability of Skills in SMAW (Shielded Metal Arc Welding)

Potential Certification: A student may elect to take an industry-specific certification exam. The examinations generally require a testing fee paid by the student. After completion of this program, a student will be academically prepared to take the following examination:

- American Welding Society FCAW D1.1 Structural Welding Code.
- American Welding Society SMAW D1.1 Structural Welding Code.
- American Welding Society GMAW D1.1 Structural Welding Code.

Occupational Objectives: Employment opportunities for graduates of this program might include welding specialist, welding assistant, self-employment and industrial maintenance.

General Education Requirements (8 Credits):

ENG 131 Technical Report Writing I (3)
[or ENG 111 College Composition I (3)]
HLT 100 First Aid & Cardiopulmonary Resuscitation (2)
MTH 120 Introduction to Mathematics (3)

Program Requirements (30 Credits):

WEL 117 Oxyacetylene Welding and Cutting (3)
WEL 123 ARC Welding (Basic) (4)
WEL 124 ARC Welding (Advanced) (4)
(Skill demonstration test must be satisfactorily completed in WEL 124 before proceeding into WEL 126)
WEL 126 Pipe Welding I (3)
WEL 130 Inert Gas Welding (3)
WEL 141 Welding Qualification Tests I (3)
WEL 145 Welding Metallurgy (3)
WEL 150 Welding Drawing and Interpretation (2)
WEL 198 Seminar and Project (4)
SDV 108 College Survival Skills (1)

Minimum required for degree: 38 Credits

Welding

Award: Career Studies Certificate
Length: 19 credits

Purpose: This program is designed to provide the layman and practitioner fundamental skills and knowledge in metal trades.

WEL 117 Oxyacetylene Welding and Cutting (3)
WEL 123 ARC Welding (Basic) (4)
WEL 124 ARC Welding (Advanced) (4)
WEL 130 Inert Gas Welding (3)
WEL 145 Welding Metallurgy (3)
WEL 150 Welding Drawing and Interpretation (2)

Student must complete each of the 19 credits to be awarded the Career Studies Certificate in Welding.

Advising Sheet Suggested Schedules: Courses in advising sheets are displayed under the semester in which the courses are regularly offered. It is possible that a course shown on the schedule for a particular semester may not be offered due to low enrollment or other factors.

Advising Sheet for Certificate: Industrial Welding 2016-17

Developmental English Pre-requisites met: _____yes _____no			
Required	ENF1	ENF2	ENF3
Met			

Developmental Math Pre-requisites met: _____yes _____no									
Required	MOD1	MOD2	MOD3						
Met									

Note: Classes that are shaded meet the requirement of the Career Studies Certificate in Welding.

First Semester Courses:			**Completed**
ENG.131	Technical Report Writing I	3.0	_____
MTH.120	Introduction to Mathematics	3.0	_____
SDV.108	College Survival Skills	1.0	_____
WEL.117	Oxyfuel Welding and Cutting	3.0	_____
WEL.123	Shielded Metal Arc Welding (Basic)	4.0	_____
WEL.150	Welding Drawing and Interpretation	2.0	_____
	Total	16	

Next Actions which follow or can be accomplished during the First Semester

1.During Early Bird Registration, meet with academic advisor to enroll in next semester

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Second Semester Courses:			**Completed**
HLT.100	First Aid and Cardiopulmonary Resuscitation	3.0	_____
WEL.126	Pipe Welding I	3.0	_____
WEL.124	Shielded Metal Arc Welding (Advanced)	4.0	_____
WEL.130	Inert Gas Welding	3.0	_____
WEL.145	Welding Metallurgy	3.0	_____
	Total	16	

Next Actions which follow or can be accomplished during the Second Semester

1. During Early Bird Registration, meet with academic advisor to enroll in next semester
2. Apply for graduation.
3. Meet with program faculty to prepare resume, plan internships, and/or receive assistance with job search.
4. Discuss eligibility for industry credential completion with academic advisor.

Third Semester Courses:			**Completed**
WEL.198	Seminar and Project In	4.0	_____
WEL.141	Welder Qualification Tests I	3.0	_____
	Total	7	

Auto Body Technology

Award: Career Studies Certificate
Length: 19 credits

Purpose: This program is designed for students who wish to gain basic skills for entry-level positions in Auto Body repair.

Program Learning Outcomes: A student will be able to:
- Demonstrate fundamental skills of entry-level auto body repair;
- Demonstrate proficiency of automotive collision repair and maintenance.

AUB	106	Basic Sheet Metal Operations (4)
AUB	116	Auto Body Repair (4)
AUB	118	Automotive Paint Preparation (4)
AUB	119	Automotive Painting (4)
AUB	290	Coordinated Internship (3)

Students must complete the above 19 credit hours to be awarded the Career Studies Certificate in Auto Body Technology.

Building Trades Technology

Award: Career Studies Certificate
Length: 28 credits

Purpose: This program is designed to provide introductory training for individual seeking entry-level employment in trades-related fields.

Program Learning Outcomes: A student will be able to:
- exhibit work safety on the construction site;
- demonstrate understanding of terms and materials to apply in the construction industry;
- demonstrate skills to comprehend the information provided by blueprints and apply that knowledge to successfully complete a project;
- perform basic carpentry skills;
- perform basic home electricity skills;
- perform basic plumbing skills;
- perform basic brick and block laying skills.

BLD	105	Shop Practices and Procedures (3)
BLD	111	Blueprint Reading and Building Code (3)
BLD	135	Building Construction Carpentry (3)
BLD	140	Principles of Plumbing Trade I (3)
BLD	147	Principles of Block and Bricklaying (3)
BLD	EEE	Elective (3)
ELE	110	Home Electric Power (3)
ENG	111	College Composition I (3)
MTH	103	Applied Technical Mathematics I (3)
SDV	108	College Survival Skills (1)

Students must complete the above 28 credit hours to be awarded the Career Studies Certificate in Building Trades Technology.

Culinary Arts

Award: Career Studies Certificate
Length: 13 credits

Purpose: This program prepares graduates for entry level responsibilities in the hospitality industry.

Potential Certification: ServSafe Manager Certification

Program Learning Outcomes: A student will be able to:
- outline the decision making process for managers using various decision making techniques;
- demonstrate acceptable workplace skills, attitudes, and behaviors.
- demonstrate knowledge of food production and dining.

HRI	106	Principles of Culinary Arts I (3)
HRI	119	Applied Nutrition for Food Service (3)
HRI	128	Principles of Baking (3)
HRI	134	Food and Beverage Service Management (3)
HRI	154	Principles of Hospitality Management (3)
HRI	158	Sanitation & Safety (3)
HRI	190	Coordinated Internship (3)
HRI	EEE	HRI Elective (3)
ITE	115	Intro. Computer Applications & Concepts (3)
SDV	108	College Survival Skills (1)

Students must complete the above 28 credit hours to be awarded the Career Studies Certificate in Culinary Arts.

High-Demand Occupational Programs for Employment: Customer Service

Award: Career Studies Certificate
Length: 24 credits

Purpose: This program prepares graduates to fulfill entry-level responsibilities in the customer service industry. Prerequisites: ENF 3 or above, and MTE 1-3.

Program Learning Outcomes: Upon completion, graduates will demonstrate the fundamental knowledge, skill and ability related to contact center operations, keyboarding and computer tasks, and work ready skills necessary to work in an entry-level position in the customer service field.

AST	117	Keyboarding for Computer Use (1)
AST	171	Introduction to Call Center Service (3)
BUS	110	Business Protocol (3)
BUS	149	Workplace Ethics (1)
BUS	190	Internship (1)
ENG	105	Communication in Business and Industry (2)
ITE	55	Certification Preparation (1)
ITE	115	Intro to Computer Applications & Concepts (3)
ITE	116	Survey of Computer Software Applications (2)
MKT	170	Customer Service (2)
PSY	126	Psychology for Business and Industry (3)
SDV	106	Preparation for Employment (1)
SDV	108	College Survival Skills (1)

Student must complete the above 24 credits to be awarded the Career Studies Certificate in Customer Service.

High-Demand Occupational Programs for Employment: Food Service

Award: Career Studies Certificate
Length: 20 credits

Purpose: This program prepares graduates to fulfill entry-level responsibilities in the food service industry. Prerequisites: ENF 3 or above, and MTE 1-3.

Program Learning Outcomes: Upon completion, will demonstrate the fundamental knowledge, skill and ability related to food production, dining, serving, and work ready skills necessary to work as potentially certified ServSafe Manager in the food service field.

BUS	110	Business Protocol (3)
BUS	149	Workplace Ethics (1)
HRI	106	Principles of Culinary Arts I (3)
HRI	126	The Art of Garnishing (1)
HRI	158	Sanitation and Safety (3)
HRI	190	Coordinated Internship (1)
ITE	55	Certification Preparation (1)
ITE	115	Introduction to Computer Applications & Concepts (3)
MKT	170	Customer Service (2)
SDV	106	Preparation for Employment (1)
SDV	108	College Survival Skills (1)

Student must complete the above 20 credits to be awarded the Career Studies Certificate in Food Services.

Horticulture

Award: Career Studies Certificate
Length: 29 credits

Purpose: The purpose of this program is to provide broad based skills to be applied to the horticultural industry. Graduates will be prepared for a variety of employment opportunities such as: Landscaper, Landscape Contractor, nursery employee, and estate grounds maintenance. Applicants must meet placement requirements of ENF 3 and MTE 1-3.

Program Learning Outcomes: A student will be able to:

- demonstrate knowledge of factors that affect plant growth;
- perform practices that increase plant populations;
- demonstrate knowledge of plant identification

AGR	205	Soil Fertility and Management (3)
		[or AGR 143 Intro to Agribusiness/ Financial Management (3)]
		[or HRT 259 Arboriculture (3)]
HRT	100	Introduction to Horticulture (3)
		[or AGR 142 Intro. to Plant Science and Technology (3)]
HRT	110	Principles of Horticulture (3)
HRT	115	Plant Propagation (3)
HRT	190	Coordinated Internship (2)
HRT	201	Landscape Plants I (3)
HRT	226	Greenhouse Management (3)
HRT	275	Landscape Construction and Maintenance (3)
VEN	120	Viticulture I (3)
VEN	121	Viticulture II (3)

Students must complete the above 29 credit hours to be awarded the Career Studies Certificate in Horticulture.

High-Demand Occupational Programs for Employment: Logistics

Award: Career Studies Certificate
Length: 21 credits

Purpose: This program prepares graduates to meet the demands for an emerging technical workforce and is a direct response to local workforce and industry demand. Prerequisites: ENF 3 or above, and MTE 1-3.

Program Learning Outcomes: Upon completion, graduates will demonstrate the fundamental knowledge, skill and ability related to front-line material handling, fulfillment, computer tasks, and work ready skills necessary to work in an entry level position in the logistics/eCommerce field.

BUS	110	Business Protocol (3)
BUS	149	Workplace Ethics (1)
BUS	234	Supply Chain Management (3)
BUS	255	Inventory and Warehouse Management (3)
BUS	290	Coordinated Internship (3)
ITE	55	Certification Preparation (1)
ITE	115	Introduction to Computer Applications and Concepts (3)
MKT	170	Customer Service (2)
SDV	106	Preparation for Employment (1)
SDV	108	College Survival Skills (1)

Students must complete the above 21 credit hours to be awarded the Career Studies Certificate in Logistics.

Logistics Supervision

Award: Career Studies Certificate
Length: 10 credits

Purpose: This program is designed to prepare individuals with the leadership and supervisory skills necessary to successfully lead this emerging technical workforce in the logistics industry. Prerequisites: ENF 3 or above and MTE 1-3.

Program Learning Outcomes: Upon completion, graduates will demonstrate the skills and abilities to supervise front-line material handling or fulfillment personnel, utilize computer skills and possess broad skills in both the application of theories and hands-on experience in a variety of logistics/eCommerce related disciplines.

BUS	111	Principles of Supervision I (3)
BUS	190	Internship (1)
IND	181	World Class Manufacturing I (3)

ITE 115 Introduction to Computer Applications and Concepts (3)

Students must complete the above 10 credit hours to be awarded the Career Studies Certificate in Logistics Supervision.

Viticulture

Award: Career Studies Certificate
Length: 27 credits

Purpose: The purpose of this program is to provide skills and experience that may be applied to a rapidly expanding grape industry in the eastern portion of the country. The grape industry is centered in the western portion of the U.S. and their conditions vary greatly from those in the east. Students will gain insight into conditions and problems that face eastern growers and prepare themselves for jobs as vineyard workers, vineyard managers, winery personnel, and retail sales specialist.

Applicants must meet placement requirements of ENG 03, ENG 05, and MTH 02.

Program Learning Outcomes: A student will be able to:

- Demonstrate understanding of vineyard establishment
- Demonstrate knowledge of grape insects and grape diseases
- Demonstrate knowledge of grape vine management for grape quality

VEN 100 Introduction to Viticulture (3)
VEN 110 Vineyard Establishment (3)
VEN 120 Viticulture I (3)
VEN 121 Viticulture II (3)
VEN 125 Vineyard Management (3)
VEN 130 Introduction to Winemaking (3)
VEN 135 Wine Production (3)
VEN 140 Grape Pest and Disease Management (3)
VEN 190 Coordinated Internship (3)

Students must complete the above 27 credits to be awarded the Career Studies Certificate in Viticulture.

General Studies

Award: Associate of Arts and Sciences
Length: 60-61 credits

Purpose: The curriculum is designed for the student who plans to complete a baccalaureate degree program. Students often select the general studies program if they intend to transfer to a four- year institution but are uncertain what their major will be. The transfer institution's catalog and transfer guide are the best sources of information for planning a course of study. Final responsibility for transferability of courses rests with the student and the registrar of that institution. Contact the division dean or an advisor for additional information.

Program Outcomes: A student will be able to:
- Demonstrate proficiency in oral communication;
- Demonstrate effective written communication skills;
- Demonstrate proficiency in mathematical skills to solve problems;
- Demonstrate proficiency in scientific reasoning;
- Demonstrate proficiency in information literacy; and
- Demonstrate the ability to reason critically and apply logic to solve problems.

General Education Requirements (21-22 Credits):
CST 110 Introduction to Communication (3)
ENG 111-112 College Composition I-II (6)
HIS 121-122 United States History I-II (6)
[or HIS 101-102 History of Western Civilization I-II (6)]
Choose one of the following combinations to fulfill the Math requirement (choose based on the requirements of the transfer institution):
[a] MTH 163 Precalculus I (3)
[or MTH 166 Precalculus with Trigonometry (4)]
and MTH 241 Statistics I (3)
[or MTH 271 Applied Calculus I (3)]

[b] MTH 151 Mathematics for the Liberal Arts I (3)
and MTH 152 Mathematics for the Liberal Arts II (3)
[or MTH 241 Statistics I (3)]

Program Requirements (39 Credits):
NOTE: To select courses, student should consult the catalog of the institution(s) to which transfer is anticipated in addition to these requirements:
ITE 119 Information Literacy (3)
SDV 108 College Survival Skills (1)
SDV 199 Supervised Study in Transfer Programs (1)
Wellness (PED/HLT EEE) (2) *See page 161-163*

English (Literature Elective) (3 Credits) *See page 161-163*

Transfer Laboratory Science (8 Credits) *See page 161-163*

Social Science Electives (6 Credits) *See page 161-163*

Fine Arts Course (3 Credits) *See page 161-163*

Humanities Elective (HUM EEE) (3 Credits) *See page 161-163*

College Transfer Electives (9 Credits) *See page 161-163*

Minimum required for degree: 60-61 Credits

Advising Sheet Suggested Schedules: Courses in advising sheets are displayed under the semester in which the courses are regularly offered. It is possible that a course shown on the schedule for a particular semester may not be offered due to low enrollment or other factors.

Advising Sheet for AA&S: General Studies 2016-17

Developmental English Pre-requisites met: _____yes _____no			
Required	ENF1	ENF2	ENF3
Met			

Developmental Math Pre-requisites met: _____yes _____no					
Required	MOD1	MOD2	MOD3	MOD4	MOD5
Met					

Fall Semester Courses:		**Completed**
ENG.111	College Composition I	3.0 _____
HIS.121	United States History I	3.0 _____
MTH.151	Mathematics for the Liberal Arts I	3.0 _____
CST.110	Introduction to Speech Communication	3.0 _____
PED/HLT.EEE	Wellness Elective	1.0 _____
SDV.108	College Survival Skills	1.0 _____
	Total	14

Next Actions which follow or can be accomplished during the First Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester

Spring Semester Courses:		**Completed**
ENG.112	College Composition II	3.0 _____
HIS.122	United States History II	3.0 _____
MTH.157	Elementary Statistics	3.0 _____
ART.EEE	Arts Elective	3.0 _____
EEE.EEE	General Elective	3.0 _____
	Total	15

Next Actions which follow or can be accomplished during the Second Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester
2. Discuss eligibility for certificate, career studies certificate, and/or credential completion with academic advisor

Fall Semester Courses:		**Completed**
ENG.EEE	English Elective	3.0 _____
ITE.119	Information Literacy	3.0 _____
SOC.EEE	Social Science Elective	3.0 _____
HUM.EEE	Humanities Elective	3.0 _____
NAS.EEE	Natural Science Electives (3-4 credits)	4.0 _____
SDV.199	Supervised Study In	1.0 _____
	Total	17

Next Actions which follow or can be accomplished during the Third Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester
2. Meet with academic advisor or transfer advisor to discuss four-year transfer options.
3. Apply for degree graduation.

Spring Semester Courses:		**Completed**
SOC.EEE	Social Science Elective	3.0 _____
NAS.EEE	Natural Science Electives (3-4 credits)	4.0 _____
PED/HLT.EEE	Wellness Elective	1.0 _____
EEE.EEE	General Elective	3.0 _____
EEE.EEE	General Elective	3.0 _____
	Total	14

General Studies

Specialization: Media Design and Production

Award: Associate of Arts and Sciences
Length: 60 credits

Media Design and Production

Award: Career Studies Certificate
Length: 18 credits

PROGRAM CONTENT COMPARISON		
	MEDIA DESIGN (AA&S)	**MEDIA DESIGN (CSC)**
CST 110 (3)	●	●
ENG 111 (3)	●	
ENG 112 (3)	●	
HIS 121 (3)	●	
HIS 122 (3)	●	
Humanities Elective (HUM EEE) (3)	●	
ITE 119 (3)	●	
MTH 151 (3)	●	
MTH 157 (3)	●	
Natural Science (NAS EEE) (8)	●	
Social Science Elective (6)	●	
SDV 108 (1)	●	●
SDV 199 (1)	●	
Wellness (HLT/PED EEE) (2)	●	
ART 283 (4)	●	●
BCS 110 (4)	●	●
BCS 299 (1)	●	
MET 293 (3)	●	●
MET 295 (3)	●	●

General Studies

Specialization: Media Design and Production

Award: Associate of Arts and Sciences
Length: 60 credits

Purpose: The curriculum is designed for the student who plans to complete a baccalaureate degree program in the media studies area. The intended transfer institution's catalog and transfer guide are the best sources of information for planning a course of study. Final responsibility for transferability of courses rests with the student and the registrar of that institution. Contact the division dean or an advisor for additional information.

Program Learning Outcomes: A student will be able to:

- Demonstrate proficiency in oral communication;
- Demonstrate effective written communication skills;
- Demonstrate proficiency in mathematical skills to solve problems;
- Demonstrate proficiency in scientific reasoning;
- Demonstrate proficiency in information literacy;
- Demonstrate the ability to reason critically and apply logic to solve problems; and
- Use basic video production hardware and software to create video productions.

General Education Requirements (21 Credits)

CST	110	Introduction to Communication (3)
ENG	111-112	College Composition I-II (6)
HIS	121-122	United States History I-II (6)
		[or HIS 101-102 History of Western Civilization I-II (6)]
MTH	151	Mathematics for Liberal Arts I (3)
MTH	157	Elementary Statistics (3)

Program Requirements: **(39 Credits)**

ART	283	Computer Graphics I (4)
ITE	119	Information Literacy (3)
SDV	108	College Survival Skills (1)
SDV	199	Supervised Study in Transfer Programs (1)
Wellness		PED/HLT EEE (2)

See page 161-163

Laboratory Science Elective (8 Credits): Must complete a two semester sequence. *See page 161-163*

Social Science Elective (6 Credits): *See page 161-163*

Humanities Elective (3 Credits): *See page 161-163*

Media Design and Production Electives (11 Credits):

BCS	110	Fundamentals in Video Production (4)
BCS	299	Supervised Study in Television (1)
MET	293	Studies in {Adobe Premiere Pro} (3)
MET	295	Topics in {Adobe After Effects} (3)

Minimum required for degree: 60 Credits

Media Design and Production

Award: Career Studies Certificate
Length: 18 credits

Purpose: The program is designed to provide entry-level skills and preparation for a job in media production and design.

Program Learning Outcomes: A student will be able to:

- Use basic video production hardware and software to create video productions

ART	283	Computer Graphics I (4)
BCS	110	Fundamentals in Video Production (4)
CST	110	Introduction to Communication (3)
MET	293	Studies In {Adobe Premiere Pro} (3)
MET	295	Studies In {Adobe After Effects} (3)
SDV	108	College Survival Skills (1)

Minimum required for certificate: 18 Credits

Advising Sheet Suggested Schedules: Courses in advising sheets are displayed under the semester in which the courses are regularly offered. It is possible that a course shown on the schedule for a particular semester may not be offered due to low enrollment or other factors.

Advising Sheet for AA&S: Specialization: Media Design and Production 2016-17

Developmental English Pre-requisites met: _____yes _____no			
Required	ENF1	ENF2	ENF3
Met			

Developmental Math Pre-requisites met: _____yes _____no									
Required	MOD1	MOD2	MOD3	MOD4	MOD5				
Met									

Note: Classes that are shaded meet the requirements of the Career Studies Certificate in Media Design.

Fall Semester Courses:			**Completed**
ENG.111	College Composition I	3.0	_____
ITE.119	Information Literacy	3.0	_____
MTH.151	Mathematics for the Liberal Arts I	3.0	_____
CST.110	Introduction to Speech Communication	3.0	_____
ART.283	Computer Graphics I	4.0	_____
SDV.108	College Survival Skills	1.0	_____
		Total 17	

Next Actions which follow or can be accomplished during the First Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester

Spring Semester Courses:			**Completed**
ENG.112	College Composition II	3.0	_____
MTH.157	Elementary Statistics	3.0	_____
BCS.110	Fundamentals in Video Production	4.0	_____
MET.293	Studies in Adobe Premiere Pro	3.0	
MET.295	Topics in Adobe After Effects	3.0	_____
		Total 16	

Next Actions which follow or can be accomplished during the Second Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester

Fall Semester Courses:			**Completed**
HIS.121	United States History I	3.0	_____
HUM.EEE	Humanities Elective	3.0	_____
NAS.EEE	Natural Science Electives	4.0	_____
SDV.199	Supervised Study In	1.0	_____
PED/HLT.EEE	Wellness Elective	1.0	_____
		Total 12	

Next Actions which follow or can be accomplished during the Third Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester
2. Apply for graduation

Spring Semester Courses:			**Completed**
HIS.122	United States History II	3.0	_____
NAS.EEE	Natural Science Electives	4.0	_____
BCS.299	Supervised Study in Television	1.0	_____
SOC.EEE	Social Science Elective	3.0	_____
SOC.EEE	Social Science Elective	3.0	_____
PED/HLT.EEE	Wellness Elective	1.0	_____
		Total 15	

General Studies

Specialization: Music

Award: Associate of Arts and Sciences

Length: 60 credits

Purpose: The curriculum is designed for the student who plans to complete a baccalaureate degree program in music. The intended transfer institution's catalog and transfer guide are the best sources of information for planning a course of study. Final responsibility for transferability of courses rests with the student and the registrar of that institution. Contact the division dean or an advisor for additional information.

Program Learning Outcomes: A student will be able to:

- Demonstrate proficiency in oral communication;
- Demonstrate effective written communication skills;
- Demonstrate proficiency in mathematical skills to solve problems;
- Demonstrate proficiency in scientific reasoning;
- Demonstrate proficiency in information literacy;
- Demonstrate the ability to reason critically and apply logic to solve problems; and
- The student will demonstrate proficiency in basic principles of music theory.

General Education Requirements (24 Credits):

CST	110	Introduction to Communication (3)
ENG	111-112	College Composition I-II (6)
HIS	121-122	United States History I-II (6)
		[or HIS 101-102 History of Western Civilization I-II (6)]
ITE	119	Information Literacy (3)
MTH	151	Mathematics for Liberal Arts I (3)
MTH	157	Elementary Statistics (3)

Program Requirements (36 Credits):

SDV	108	College Survival Skills (1)
SDV	199	Supervised Study in Transfer Programs (1)
Wellness		PED/HLT EEE (2)

See page 161-163

Laboratory Science Elective (8 Credits). Must complete a two semester sequence.

See page 161-163

Social Science Elective (6 Credits)

See page 161-163

Humanities Elective (8 Credits).

MUS 111	Music Theory I (4)
MUS 112	Music Theory II (4)

Music Electives (10 Credits): Select from the following:

MUS	121	Music Appreciation I (3)
MUS	135	Jazz Ensemble (1)
MUS	136	Applied Music-Voice (1)
MUS	137	Chorus Ensemble (1)
MUS	145	Applied Keyboard (1)
MUS	149	Band Ensemble (1)
MUS	155	Applied Woodwinds (1)
MUS	175	Applied Brass (1)
MUS	185	Applied Percussion (1)
MUS	236	Advanced Applied Music-Voice (1)

Minimum required for degree: 60 Credits

Advising Sheet Suggested Schedules: Courses in advising sheets are displayed under the semester in which the courses are regularly offered. It is possible that a course shown on the schedule for a particular semester may not be offered due to low enrollment or other factors.

Advising Sheet for AA&S: Specialization: Music 2016-17

Developmental English Pre-requisites met: _____yes _____no			
Required	ENF1	ENF2	ENF3
Met			

Developmental Math Pre-requisites met: _____yes _____no									
Required	MOD1	MOD2	MOD3	MOD4	MOD5				
Met									

Fall Semester Courses:		**Completed**
ENG.111	College Composition I	3.0 _____
HIS.121	United States History I	3.0 _____
CST.110	Introduction to Speech Communication	3.0 _____
MTH.151	Mathematics for the Liberal Arts I	3.0 _____
MUS.111	Music Theory I	4.0 _____
SDV.108	College Survival Skills	1.0 _____
	Total	17

Next Actions which follow or can be accomplished during the First Semester
1.During Early Bird Registration, meet with academic advisor to enroll in next semester

---

Spring Semester Courses:		**Completed**
ENG.112	College Composition II	3.0 _____
HIS.122	United States History II	3.0 _____
PED/HLT.EEE	Wellness Elective	1.0 _____
MTH.157	Elementary Statistics	3.0 _____
MUS.112	Music Theory II	4.0 _____
MUS.EEE	Music Electives	2.0 _____
	Total	16

Next Actions which follow or can be accomplished during the Second Semester
1.During Early Bird Registration, meet with academic advisor to enroll in next semester

---

Fall Semester Courses:		**Completed**
ITE.119	Information Literacy	3.0 _____
SOC.EEE	Social Science Elective	3.0 _____
SDV.199	Supervised Study In	1.0 _____
MUS.EEE	Music Electives	4.0 _____
NAS.EEE	Natural Science Electives	4.0 _____
	Total	15

Next Actions which follow or can be accomplished during the Third Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester
2. Meet with academic advisor or transfer advisor to discuss four-year transfer options.
3. Apply for degree graduation

Spring Semester Courses:		**Completed**
SOC.EEE	Social Science Elective	3.0 _____
PED/HLT.EEE	Wellness Elective	1.0 _____
MUS.EEE	Music Electives	4.0 _____
NAS.EEE	Natural Science Electives	4.0 _____
	Total	12

General Studies

Specialization: Performing Arts

Award: Associate of Arts and Sciences
Length: 60 credits

Theatre Arts

Award: Career Studies Certificate
Length: 19 credits

PROGRAM CONTENT COMPARISON		
	PERFORMING ARTS (AA&S)	**THEATRE ARTS (CSC)**
CST 110 (3)	●	●
ENG 111 (3)	●	
ENG 112 (3)	●	
HIS 121 (3)	●	
HIS 122 (3)	●	
Humanities Elective (HUM EEE) (3)	●	
ITE 119 (3)	●	
MTH 151 (3)	●	
MTH 157 (3)	●	
Natural Science (NAS EEE) (8)	●	
Social Science Elective (6)	●	
SDV 108 (1)	●	●
SDV 199 (1)	●	
Wellness (HLT/PED EEE) (2)	●	
CST 130 (3)	●	●
CST 131 (3)	●	●
CST 132 (3)	●	●
CST 136 (3)	●	●
CST 231 (3)	●	●

Specialization: Performing Arts

Award: Associate of Arts and Sciences
Length: 60 credits

Purpose: The curriculum is designed for the student who plans to complete a baccalaureate degree program in the performing arts area. The intended transfer institution's catalog and transfer guide are the best sources of information for planning a course of study. Final responsibility for transferability of courses rests with the student and the registrar of that institution. Contact the division dean or an advisor for additional information.

Program Learning Outcomes: A student will be able to:
- Demonstrate proficiency in oral communication;
- Demonstrate effective written communication skills;
- Demonstrate proficiency in mathematical skills to solve problems;
- Demonstrate proficiency in scientific reasoning;
- Demonstrate proficiency in information literacy;
- Demonstrate the ability to reason critically and apply logic to solve problems; and
- Investigate areas of employment associated with performing arts.

General Education Requirements (24 Credits):
CST 110 Introduction to Communication (3)
ENG 111-112 College Composition I-II (6)
HIS 121-122 United States History I-II (6)
[or HIS 101-102 History of Western Civilization I-II (6)]
ITE 119 Information Literacy (3)
MTH 151 Mathematics for Liberal Arts I (3)
MTH 157 Elementary Statistics (3)

Program Requirements (36 Credits):
NOTE: To select courses, student should consult the catalog of the institution(s) to which transfer is anticipated in addition to these requirements:
SDV 108 College Survival Skills (1)
SDV 199 Supervised Study in Transfer Programs (1)
Wellness PED/HLT EEE (2) *See page 161-163*

Laboratory Science Elective (8 Credits).
Must complete a two semester sequence. *See page 161-163*

Social Science Elective (6 Credits) *See page 161-163*

Humanities Elective (3 Credits) *See page 161-163*

Performing Arts Electives (15 Credits):
CST 130 Introduction to the Theater (3)
CST 131 Acting I (3)
CST 132 Acting II (3)
CST 136 Theater Workshop (3)
CST 231 History of Theater (3)

Minimum required for degree: 60 Credits

Theatre Arts

Award: Career Studies Certificate
Length: 19 credits

Purpose: This program is designed to provide skills specifically related to acting and stage design.

Program Learning Outcomes: A student will be able to:
- Demonstrate competency in at least one aspect of theatre acting.
- Demonstrate competency in at least one area related to theatre production.

CST 110 Introduction to Communication (3)
CST 130 Introduction to the Theatre (3)
CST 131 Acting I (3)
CST 132 Acting II (3)
CST 136 Theatre Workshop (3)
CST 231 History of the Theatre I (3)
SDV 108 College Survival Skills (1)

Minimum required for certificate: 19 Credits

Advising Sheet Suggested Schedules: Courses in advising sheets are displayed under the semester in which the courses are regularly offered. It is possible that a course shown on the schedule for a particular semester may not be offered due to low enrollment or other factors.

Advising Sheet for AAS: Specialization: Performing Arts 2016-17

Developmental English Pre-requisites met: _____yes _____no			
Required	ENF1	ENF2	ENF3
Met			

Developmental Math Pre-requisites met: _____yes _____no									
Required	MOD1	MOD2	MOD3	MOD4	MOD5				
Met									

Note: Classes that are shaded meet the requirements of the Career Studies Certificate in Theatre Arts.

Fall Semester Courses:			**Completed**
ENG.111	College Composition I	3.0	_____
MTH.151	Mathematics for the Liberal Arts I	3.0	_____
CST.110	Introduction to Speech Communication	3.0	_____
CST.130	Introduction to Theater I	3.0	_____
CST.131	Acting I	3.0	_____
SDV.108	College Survival Skills	1.0	_____
	Total	16	

Next Actions which follow or can be accomplished during the First Semester
1.During Early Bird Registration, meet with academic advisor to enroll in next semester

---

Spring Semester Courses:			**Completed**
ENG.112	College Composition II	3.0	_____
MTH.157	Elementary Statistics	3.0	_____
CST.132	Acting II	3.0	_____
CST.136	Theatre Workshop	3.0	_____
CST.231	History of Theater	3.0	_____
	Total	15	

Next Actions which follow or can be accomplished during the Second Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester

---

Fall Semester Courses:			**Completed**
SOC.EEE	Social Science Elective	3.0	_____
ITE.119	Information Literacy	3.0	_____
NAS.EEE	Natural Science Elective	4.0	_____
HIS.121	United States History I	3.0	_____
HUM.EEE	Humanities Elective	3.0	_____
	Total	16	

Next Actions which follow or can be accomplished during the Third Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester
2. Meet with academic advisor or transfer advisor to discuss four-year transfer options.
3. Apply for degree graduation.

Spring Semester Courses:			**Completed**
SOC.EEE	Social Science Elective	3.0	_____
NAS.EEE	Natural Science Elective	4.0	_____
PED/HLT.EEE	Wellness Elective	2.0	_____
HIS.122	United States History II	3.0	_____
SDV 199	Supervised Study In	1.0	_____
	Total	13	

General Studies

Specialization: Visual Arts

Award: Associate of Arts and Sciences
Length: 60 credits

Art Studies

Award: Career Studies Certificate
Length: 13 credits

PROGRAM CONTENT COMPARISON		
	VISUAL ARTS (AA&S)	**ART STUDIES (CSC)**
CST 110 (3)	●	
ENG 111 (3)	●	
ENG 112 (3)	●	
HIS 121 (3)	●	
HIS 122 (3)	●	
English Literature Elective (3)	●	
ITE 119 (3)	●	
MTH 151 (3)	●	
MTH 157 (3)	●	
Natural Science (NAS EEE) (8)	●	
Social Science Elective (6)	●	
SDV 108 (1)	●	●
SDV 199 (1)	●	
Wellness (HLT/PED EEE) (2)	●	
ART ELECTIVE (3)	●	ART 101 ●
ART ELECTIVE (3)	●	ART 102 ●
ART ELECTIVE (3)	●	ART 121 ●
ART ELECTIVE (3)	●	ART 122 ●
ART ELECTIVE (3)	●	

Specialization: Visual Arts

Award: Associate of Arts and Sciences
Length: 60 credits

Purpose: The curriculum is designed for the student who plans to complete a baccalaureate degree program in the study of visual arts. The intended transfer institution's catalog and transfer guide are the best sources of information for planning a course of study. Final responsibility for transferability of courses rests with the student and the registrar of that institution. Contact the division dean or an advisor for additional information.

Program Learning Outcomes: A student will be able to:
- Demonstrate proficiency in oral communication;
- Demonstrate effective written communication skills;
- Demonstrate proficiency in mathematical skills to solve problems;
- Demonstrate proficiency in scientific reasoning;
- Demonstrate proficiency in information literacy;
- Demonstrate the ability to reason critically and apply logic to solve problems; and
- Create a portfolio of artwork demonstrating proficiency in specified concepts and techniques.

General Education Requirements (21 Credits):

CST	110	Introduction to Communication (3)
ENG	111-112	College Composition I-II (6)
HIS	121-122	United States History I-II (6)
		[or HIS 101-102 History of Western Civilization I-II (6)]
MTH	151	Mathematics for Liberal Arts I (3)
MTH	157	Elementary Statistics (3)

Program Requirements (39 Credits):

ITE	119	Information Literacy (3)
SDV	108	College Survival Skills (1)
SDV	199	Supervised Study in Transfer Programs (1)
Wellness		(PED/HLT EEE) (2) *See page 161-163*

ART Electives (15): Select from:

ART	101	Appreciation and History of Art I (3)
ART	102	Appreciation and History of Art II (3)
ART	122	Drawing II (3)
ART	121	Drawing I (3)
ART	241	Painting I (3)
ART	242	Painting II (3)
ART	283	Computer Graphics I (4)
ART	284	Computer Graphics II (4)

English (Literature Elective) (3 Credits). *See page 161-163*

Transfer Laboratory Science (8 Credits).
Must complete a two semester sequence. See page 161-163

Social Science Elective (6 Credits). *See page 161-163*

Minimum required for degree: 60 Credits

Art Studies

Award: Career Studies Certificate
Length: 28 credits

Purpose: This program is designed to provide skills for the individual pursuing a vocational or other artistic interest.

Program Learning Outcomes: A student will be able to:
- Demonstrate an appreciation for the arts.
- Demonstrate competency in at least two areas within the field of visual arts.

ART	101	Appreciation and History of Art I (3)
ART	102	Appreciation and History of Art II (3)
ART	121	Drawing I (3)
ART	122	Drawing II (3)
SDV	108	College Survival Skills (1)

Minimum required for certificate: 13 Credits
* ART 241, ART 242 may be substituted with division approval.

Advising Sheet Suggested Schedules: Courses in advising sheets are displayed under the semester in which the courses are regularly offered. It is possible that a course shown on the schedule for a particular semester may not be offered due to low enrollment or other factors.

Advising Sheet for AA&S: Specialization: Visual Arts 2016-17

Developmental English Pre-requisites met: _____yes _____no			
Required	ENF1	ENF2	ENF3
Met			

Developmental Math Pre-requisites met: _____yes _____no								
Required	MOD1	MOD2	MOD3	MOD4	MOD5			
Met								

Note: Classes that are shaded meet the requirements of the Career Studies Cert. in Art Studies

Fall Semester Courses:			**Completed**
ENG.111	College Composition I	3.0	
ITE.119	Information Literacy	3.0	
MTH.151	Mathematics for the Liberal Arts I	3.0	
ART.EEE	Arts Elective (ART 101 used for certificate)	3.0	
ART.EEE	Arts Elective (ART 121 used for certificate)	3.0	
SDV.108	College Survival Skills	1.0	
		Total 16	

Next Actions which follow or can be accomplished during the First Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester

Spring Semester Courses:			**Completed**
ENG.112	College Composition II	3.0	
ART.EEE	Arts Elective (ART 102 used for certificate)	3.0	
ART.EEE	Arts Elective (ART 122 used for certificate)	3.0	
MTH.157	Elementary Statistics	3.0	
SOC.EEE	Social Science Elective	3.0	
		Total 15	

Next Actions which follow or can be accomplished during the Second Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester

Fall Semester Courses:			**Completed**
ART.EEE	Arts Elective	3.0	
HIS.121	United States History I	3.0	
SOC.EEE	Social Science Elective	3.0	
CST.110	Introduction to Speech Communication	3.0	
NAS.EEE	Natural Science Electives	4.0	
		Total 16	

Next Actions which follow or can be accomplished during the Third Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester
2. Meet with academic advisor or transfer advisor to discuss four-year transfer options.
3. Apply for degree graduation

Spring Semester Courses:			**Completed**
ENG.EEE	English Literature Elective	3.0	
HIS.122	United States History II	3.0	
PED/HLT.EEE	Wellness Elective	2.0	
SDV.199	Supervised Study In	1.0	
NAS.EEE	Natural Science Electives	4.0	
		Total 13	

Business Administration

Award: Associate of Arts and Sciences
Length: 60-61 credits

Purpose: The curriculum is designed for the student who plans to complete a baccalaureate degree program. The transfer institution's catalog and transfer guide are the best sources of information for planning a course of study. Final responsibility for transferability of courses rests with the student and the registrar of that institution.

Program Outcomes: A student will be able to:

- Demonstrate minimum proficiency in General Education Skills which are defined as oral communication, written communication, mathematical/problem solving, scientific reasoning, information literacy, and critical thinking;
- Apply the principles of financial accounting;
- Define key terminology associated with microeconomics;
- Apply the key principles associated with macroeconomics.

General Education Requirements (21-22 Credits):

CST	110	Introduction to Communication (3)
ENG	111-112	College Composition I-II (6)
HIS	121-122	United States History I-II (6)
		[or HIS 101-102 History of Western Civilization I-II (6)]
MTH	163	Precalculus I (3)
		[or MTH 166 Precalculus with Trigonometry (4)]
MTH	271	Applied Calculus I (3)

Program Requirements (39 Credits):

ACC	211-212	Principles of Accounting I-II (6)
ECO	201	Principles of Macroeconomics (3)
ECO	202	Principles of Microeconomics (3)
ITE	119	Information Literacy (3)
MTH	241	Statistics I (3)
SDV	108	College Survival Skills (1)
SDV	199	Supervised Study in Transfer Programs (1)
Wellness		PED/HLT EEE (2)

See page 161-163

Transfer Laboratory Science (8 Credits).
Must complete a two semester sequence. *See page 161-163*

Social Science Elective (3 Credits). *See page 161-163*

Fine Arts Electives (3 Credits). *See page 161-163*

College Transfer Electives (3 Credits). *See page 161-163*

Minimum required for degree: 60-61 Credits

Advising Sheet Suggested Schedules: Courses in advising sheets are displayed under the semester in which the courses are regularly offered. It is possible that a course shown on the schedule for a particular semester may not be offered due to low enrollment or other factors.

Advising Sheet for AA&S: Business Administration 2016-17

Developmental English Pre-requisites met: _____yes _____no			
Required	ENF1	ENF2	ENF3
Met			

Developmental Math Pre-requisites met: _____yes _____no									
Required	MOD1	MOD2	MOD3	MOD4	MOD5	MOD6	MOD7	MOD8	MOD9
Met									

Fall Semester Courses:			**Completed**
ENG.111	College Composition I	3.0	_____
HIS.121	United States History I	3.0	_____
MTH.166	Precalculus with Trigonometry	4.0	_____
CST.110	Introduction to Speech Communication	3.0	_____
PED.EEE	PE Elective	1.0	_____
SDV.108	College Survival Skills	1.0	_____
		Total 15	

Next Actions which follow or can be accomplished during the First Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester

Spring Semester Courses:			**Completed**
ENG.112	College Composition II	3.0	_____
HIS.122	United States History II	3.0	_____
MTH.271	Applied Calculus I	3.0	_____
HUM.EEE	Humanities Elective	3.0	_____
ITE.119	Information Literacy	3.0	_____
		Total 15	

Next Actions which follow or can be accomplished during the Second Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester

Fall Semester Courses:			**Completed**
MTH.241	Statistics I	3.0	_____
ACC.211	Principles of Accounting I	3.0	_____
ECO.201	Principles of Macroeconomics	3.0	_____
EEE.EEE	General Elective	3.0	_____
NAS.EEE	Natural Science Electives	4.0	_____
SDV.199	Supervised Study In	1.0	_____
		Total 17	

Next Actions which follow or can be accomplished during the Third Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester
2. Meet with academic advisor or transfer advisor to discuss four-year transfer options.
3. Meet with Experiential Learning Coordinator to prepare resume, plan internships, and/or receive assistance with job search.
4. Apply for degree graduation.

Spring Semester Courses:			**Completed**
SOC.EEE	Social Science Elective	3.0	_____
NAS.EEE	Natural Science Electives	4.0	_____
PED/HLT.EEE	PE Elective	1.0	_____
ECO.202	Principles of Microeconomics	3.0	_____
ACC.212	Principles of Accounting II	3.0	_____
		Total 14	

Business Technology
Major: Accounting

Award: Associate of Applied Science
Length: 65 credits

Bookkeeping

Award: Certificate
Length: 31 credits

PROGRAM CONTENT COMPARISON		
	ACCOUNTING (AAS)	**BOOKKEEPING (CERT)**
CST 110 (3)	●	
ENG 111 (3)	●	●
ENG 112 (3)	●	
MTH 120 (3)	●	●
Transfer Science (NAS.EEE)(4)	●	
Wellness (HLT/PED.EEE) (2)	●	
SDV 108 (1)	●	●
ACC 124 (3)	●	●
ACC 211 (3)	●	●
ACC 212 (3)	●	●
ACC 215 (3)	●	●
ACC 221 (3)	●	
ACC 222 (3)	●	
ACC 261 (3)	●	●
ACC 290 (3)	●	
ACC 293 (3)	●	
ACC 299 (1)	●	
BUS 125 (3)	●	●
BUS 241 (3)	●	
ECO 201 (or ECO 202) (3)	●	
FIN 215 (3)	●	
ITE 115 (3)	●	●
1TE 140 (3)	●	●

Business Technology: Major: Accounting

Award: Associate of Applied Science
Length: 65 credits

Purpose: This program provides knowledge and skills leading to immediate employment in the field of accounting. People who wish to qualify for promotion in a present position to another field may benefit from this program. Students are strongly urged to consult their faculty advisor in planning programs.

Employment Objectives: Some of the occupations and positions for which graduates of this program may qualify are accounting technician, junior accountant or accountant.

Potential Certification: A student may elect to take an industry- specific certification exam. The examinations generally require a testing fee paid by the student. After completion of this program, a student will be academically prepared to take the following examinations:

- Microsoft Office Specialist (MOS) – Excel.
- American Institute of Professional Bookkeepers – Certified Bookkeeper (CB) (requires related work experience and code of ethics agreement).
- QuickBooks.

Program Learning Outcomes: A student will be able to:

- Demonstrate minimum proficiency in General Education Skills which are defined as oral communication, written communication, mathematical/problem solving, scientific reasoning, information literacy, and critical thinking.
- Demonstrate the ability to perform payroll.
- Demonstrate the ability to prepare a complex tax return.
- Demonstrate a mastery of QuickBooks Accounting Software
- Demonstrate acceptable workplace skills, attitudes, and behaviors.

General Education Requirements (19 Credits):

CST 110 Introduction to Communication (3)
ECO 201 Principles of Macroeconomics (3)
[or ECO 202 Principles of Microeconomics (3)]
ENG 111-112 College Composition I-II (6)
MTH 120 Introduction to Mathematics (3)
[or MTH 151 Mathematics for the Liberal Arts I (3)]
Science Elective [BIO, CHM, ENV, GOL, NAS, PHY] (4)

Program Requirements (46 Credits):

ACC 124 Payroll Accounting (3)
ACC 211-212 Principles of Accounting I-II (6)
ACC 215 Computerized Accounting (3)
ACC 221-222 Intermediate Accounting I-II (6)
ACC 261 Principles of Federal Taxation I (3)
ACC 290 Coordinated Internship (3)
[or ACC 297 Cooperative Education (3)]
ACC 293 Studies in Accounting (3)
ACC 299 Supervised Study in Accounting (1)
BUS 125 Applied Business Mathematics (3)
BUS 241 Business Law I (3)
FIN 215 Financial Management (3)
ITE 115 Intro. Computer Apps & Concepts (3)
ITE 140 Spreadsheet Software (3)
Wellness (PED/HLT EEE) (2) *See page 161-163*
SDV 108 College Survival Skills (1)

Minimum required for degree: 65 Credits

Bookkeeping

Award: Certificate
Length: 31 credits

Purpose: The purpose of this program is to provide additional knowledge and skill in basic accounting and bookkeeping for persons seeking immediate employment in the field, for those already employed who want to upgrade skills or for small business owners.

Employment Objectives: Employment opportunities might include accountant's assistant, bookkeeper, financial records manager, office manager or small business operator.

Potential Certification: A student may elect to take an industry-specific certification exam. The examinations generally require a testing fee paid by the student. After completion of this program, a student will be academically prepared to take the following examinations:

- Microsoft Office Specialist (MOS) – Excel.
- QuickBooks Certification.

Program Learning Outcomes: A student will be able to:

- Demonstrate ability to reason critically and problem-solve.
- Describe and use general business knowledge and skills.
- Apply the principles of financial accounting, managerial accounting, tax accounting, and payroll accounting.
- Prepare and interpret financial statements.
- Demonstrate proficiency in personal computer operations and applications.
- Demonstrate effective written communication skills in a business setting.

General Education Requirements (6 Credits):

ENG	111	College Composition I (3)
MTH	120	Introduction to Mathematics (3)

Program Requirements (25 Credits):

ACC	124	Payroll Accounting (3)
ACC	211-212	Principles of Accounting I-II (6)
ACC	215	Computerized Accounting (3)
ACC	261	Principles of Federal Taxation I (3)
BUS	125	Applied Business Mathematics (3)
ITE	115	Intro. Computer Applications & Concepts (3)
ITE	140	Spreadsheet Software (3)
SDV	108	College Survival Skills (1)

Minimum required for certificate: 31 Credits

Advising Sheet Suggested Schedules: Courses in advising sheets are displayed under the semester in which the courses are regularly offered. It is possible that a course shown on the schedule for a particular semester may not be offered due to low enrollment or other factors.

Advising Sheet for AAS: Business Technology: Major: Accounting 2016-17

Developmental English Pre-requisites met: _____yes _____no			
Required	ENF1	ENF2	ENF3
Met			

Developmental Math Pre-requisites met: _____yes _____no			
Required	MOD1	MOD2	MOD3
Met			

Note: Classes that are shaded meet the requirements of the Certificate in Bookkeeping.

Fall Semester Courses:			**Completed**
ENG.111	College Composition I	3.0	_____
ACC.211	Principles of Accounting I	3.0	_____
CST.110	Introduction to Speech Communication	3.0	_____
ITE.115	Introduction to Computer Applications and Concepts	3.0	_____
MTH.120	Introduction to Mathematics	3.0	_____
SDV.108	College Survival Skills	1.0	_____
	Total	16	

Next Actions which follow or can be accomplished during the First Semester
1.During Early Bird Registration, meet with academic advisor to enroll in next semester

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Spring Semester Courses:			**Completed**
ENG.112	College Composition II	3.0	_____
ACC.212	Principles of Accounting II	3.0	_____
BUS.125	Applied Business Mathematics	3.0	_____
ACC.124	Payroll Accounting	3.0	_____
ITE.140	Spreadsheet Software	3.0	_____
ECO.201	Principles of Macroeconomics	3.0	_____
	Total	18	

Next Actions which follow or can be accomplished during the Second Semester
1.During Early Bird Registration, meet with academic advisor to enroll in next semester

---

Fall Semester Courses:			**Completed**
ACC.221	Intermediate Accounting I	3.0	_____
ACC.215	Computerized Accounting	3.0	_____
ACC.261	Principles of Federal Taxation I	3.0	_____
PED/HLT.EEE	Wellness Elective	2.0	_____
NAS.EEE	Natural Science Electives	4.0	_____
	Total	15	

Next Actions which follow or can be accomplished during the Third Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester
2. Meet with academic advisor or transfer advisor to discuss four-year transfer options.
3. Meet with Experiential Learning Coordinator to prepare resume, plan internships, and/or receive assistance with job search.
4. Apply for degree graduation.

Spring Semester Courses:			**Completed**
BUS.241	Business Law I	3.0	_____
ACC.222	Intermediate Accounting II	3.0	_____
ACC.290	Coordinated Internship	3.0	_____
ACC.293	Topics in Accounting	3.0	_____
ACC.299	Supervised Study In	1.0	_____
FIN.215	Financial Management	3.0	_____
	Total	16	

Business Technology
Major: Administrative Support Technology

Award: Associate of Applied Science
Length: 65 credits

Clerical Studies

Award: Certificate
Length: 41 credits

Office Assisting

Award: Career Studies Certificate
Length: 23 credits

PROGRAM CONTENT COMPARISON			
	AST (AAS)	**Clerical Studies (CERT)**	**Office Assisting (CSC)**
CST 110 (3)	•		
ENG 111 (3)	•	•	•
ENG 112 (3)	•		
MTH 120 (3) [or MTH 151 (3)]	•	•	
Social Science (SOC EEE) (3)	•		
ACC 124 (3) [or ACC 211 (3)]	•	•	
AST 101 (3)	•	•	•
AST 102 (3)	•	•	•
AST 154 (1)	•	•	•
AST 141 (3)	•	•	•
AST 238 (3)	•	•	
AST 243 (3)	•	•	
AST 244 (3)	•		
AST 260 (3)	•	•	
AST 290 (3)	•		
AST 299 (1)	•		
BUS 125 (3)	•	•	
ITE 115 (3)	•	•	•
ITE 130 (3)	•		
ITE 140 (3)	•	•	
ITE 150 (3)	•	•	•
SDV 108 (1)	•	•	•
SPA 103 (3)	•		
Wellness (HLT/PED EEE) (2)	•		
Approved EEE (3)			•

Business Technology
Major: Administrative Support Technology

Award: Associate of Applied Science
Length: 65 credits

Purpose: Individuals who are seeking their first employment or those who wish to qualify for promotion in a present position or to another field, including self-employment, may benefit from this program. This program prepares a student for work in a general office setting as well as offering skills in the legal and medical office areas. The program enables the student to become proficient in administrative duties and skills in a variety of companies -- including manufacturing, service-oriented, and government--or as a virtual assistant.

Employment Objectives: Completion of this program may lead to employment or career advancement in any of a wide variety of positions such as administrative assistant, administrative secretary, executive secretary, medical secretary, medical transcriptionist, customer service representative, legal secretary, office services specialist, and clerical supervisor.

Potential Certification: A student may elect to take an industry-specific certification exam. The examinations generally require a testing fee paid by the student. After completion of this program, a student will be academically prepared to take the following examinations:

- Microsoft Office Specialist (MOS) - Word, Excel, PowerPoint, Access.
- Certified Administrative Professional (CAP) and Certified Professional Secretary (CPS) - sponsored by the International Association of Administrative Professionals (IAAP) (requires related work experience).

Program Learning Outcomes: A student will be able to:

- Demonstrate minimum proficiency in General Education Skills which are defined as oral communication, written communication, mathematical/problem solving, scientific reasoning, information literacy, and critical thinking.
- Demonstrate the supervisory role of the administrative professional including ethical behaviors and appropriate interpersonal skills.
- Demonstrate proficiency with computer software, business application, and information literacy.

General Education Requirements (15 Credits):

CST 110 Introduction to Communication (3)
ENG 111-112 College Composition I (6)
MTH 120 Introduction to Mathematics (3)
[or MTH 151 Mathematics for the Liberal Arts I (3)]
Social Science Elective (3) *See page 161-163*

Program Requirements (50 Credits):

ACC 124 Payroll Accounting (3)
[or ACC 211 Principles of Accounting I (3)]
AST 101 Keyboarding I (3)
AST 102 Keyboarding II (3)
AST 154 Intro to Voice Recognition Software (1)

AST 141 Word Processing (3)
AST 238 Word Processing Advanced Operations (3)
AST 243 Office Administration I (3)
AST 244 Office Administration II (3)
AST 260 Presentation Software (3)
AST 290 Coordinated Internship (3)
AST 299 Supervised Study in AST (1)
BUS 125 Applied Business Mathematics (3)
ITE 115 Intro to Computer Apps & Concepts (3)
ITE 130 Introduction to Internet Services (3)
ITE 140 Spreadsheet Software (3)
ITE 150 Desktop Database Software (3)
SDV 108 College Survival Skills (1)
SPA 103 Basic Spoken Spanish I (3)
Wellness HLT/PED EEE (2) *See page 161-163*

Minimum required for degree: 65 Credits

Clerical Studies

Award: Certificate
Length: 41 credits

Purpose: To provide competent entry-level office support personnel for immediate employment in business, industry, the professions, and government.

Employment Objectives: Completion of this program may lead to employment or career advancement in any of a wide variety of positions such as clerk typist, data entry keyer, file clerk, general clerk, general clerk, clerk stenographer, shipping/ receiving clerk, bank teller, information clerk, and switchboard operator/receptionist.

Potential Certification: A student may elect to take an industry-specific certification exam. The examinations generally require a testing fee paid by the student. After completion of this program, a student will be academically prepared to take the following examination:

- Microsoft Office Specialist (MOS) – Word, Excel, Access, PowerPoint.

Program Learning Outcomes: A student will be able to:

- Demonstrate effective written communication skills in a business setting.
- Produce a variety of business documents using correct grammar, punctuation and spelling in a form acceptable in today's business environment.
- Demonstrate proficiency in personal computer operations and applications.
- Demonstrate various methods of filing in storing and retrieving documents both manually and electronically.

General Education Requirements (6 Credits):
ENG 111 College Composition I (3)
MTH 120 Introduction to Mathematics (3)

Program Requirements (35 Credits):
ACC 124 Payroll Accounting (3)
[or SPA 103 Basic Spoken Spanish I (3)]
AST 101 Keyboarding I (3)
AST 102 Keyboarding II (3)
AST 154 Intro to Voice Recognition Software (1)
AST 141 Word Processing I (3)
AST 238 Word Processing Advanced Operations (3)
AST 243 Office Administration I (3)
[or elective approved by faculty advisor or division dean]
AST 260 Presentation Software (3)
BUS 125 Applied Business Mathematics (3)
ITE 115 Intro Computer Applications & Concepts (3)
ITE 140 Spreadsheet Software (3)
ITE 150 Desktop Database Software (3)
SDV 108 College Survival Skills (1)

Minimum required for certificate: 41 Credits

Office Assisting

Award: Career Studies Certificate
Length: 23 credits

Purpose: This program is designed to provide skills in preparation for a job as an office assistant requiring tasks related to keyboarding, records management, office administration, writing, and computer use.

Program Learning Outcomes: A student will be able to:

- Demonstrate proficiency in personal computer operations and applications.
- Demonstrate various methods of filing in storing and retrieving documents both manually and electronically.
- Produce a variety of business documents using correct grammar, punctuation, and spelling in a form acceptable in today's business environment.

AST 101 Keyboarding I (3)
AST 102 Keyboarding II (3)
AST 141 Word Processing (3)
AST 154 Introduction to Voice Recognition Software (1)
ENG 111 College Composition I (3)
ITE 150 Desktop Database Software (3)
ITE 115 Intro Computer Applications & Concepts (3)
SDV 108 College Survival Skills (1)
Approved Elective (3)

Student must complete the above 23 credits to be awarded the Career Studies Certificate in Office Assisting.

Advising Sheet Suggested Schedules: Courses in advising sheets are displayed under the semester in which the courses are regularly offered. It is possible that a course shown on the schedule for a particular semester may not be offered due to low enrollment or other factors.

Advising Sheet for AAS: Business Technology: Major: Administrative Support Technology 2016-17

Developmental English Pre-requisites met: _____yes _____no			
Required	ENF1	ENF2	ENF3
Met			

Developmental Math Pre-requisites met: _____yes _____no			
Required	MOD1	MOD2	MOD3
Met			

Note: Classes that are shaded meet the requirements of the Certificate in Clerical Studies. Classes marked with an * meet the requirements of the *Career Studies Certificate for Office Assisting*.

	Fall Semester Courses:			**Completed**
*	AST.101	Keyboarding I	3.0	_____
	CST.110	Introduction to Speech Communication	3.0	_____
*	ENG.111	College Composition I	3.0	_____
*	ITE.115	Introduction to Computer Applications and Concepts	3.0	_____
	MTH.120	Introduction to Mathematics	3.0	_____
*	SDV.108	College Survival Skills	1.0	_____
*	Approved Elective		3.0	
			Total 13	

Next Actions which follow or can be accomplished during the First Semester
1.During Early Bird Registration, meet with academic advisor to enroll in next semester

	Spring Semester Courses:			**Completed**
*	AST.102	Keyboarding II	3.0	_____
*	AST.154	Intro to Voice Recognition Software	1.0	_____
*	AST.141	Word Processing I	3.0	_____
	ACC.124	Payroll Accounting	3.0	_____
	ITE.140	Spreadsheet Software	3.0	_____
*	ITE.150	Desktop Database Software	3.0	_____
			Total 16	

Next Actions which follow or can be accomplished during the Second Semester
1.During Early Bird Registration, meet with academic advisor to enroll in next semester

Fall Semester Courses:			**Completed**
BUS.125	Applied Business Mathematics	3.0	_____
AST.238	Word Processing Advanced Operations	3.0	_____
AST.243	Office Administration I	3.0	_____
AST.260	Presentation Software	3.0	_____
SPA.103	Basic Spoken Spanish I	3.0	
PED.EEE	Wellness	2.0	_____
		Total 17	

Next Actions which follow or can be accomplished during the Third Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester
2. Meet with academic advisor or transfer advisor to discuss four-year transfer options.
3. Meet with Experiential Learning Coordinator to prepare resume, plan internships, and/or receive assistance with job search.
4. Apply for degree graduation.

Spring Semester Courses:			**Completed**
AST.244	Office Administration II	3.0	_____
AST.290	Coordinated Internship	3.0	_____
AST.299	Supervised Study	1.0	_____
ENG.112	College Composition II	3.0	_____
ITE.130	Introduction to Internet Services	3.0	_____
SOC.EEE	Social Science Elective	3.0	_____
		Total 16	

Business Technology
Major: Administrative Support Technology
Specialization: Medical Office

Award: Associate of Applied Science
Length: 65 credits

Medical Transcription

Award: Career Studies Certificate
Length: 29 credits

Office Assisting

Award: Career Studies Certificate
Length: 23 credits

PROGRAM CONTENT COMPARISON			
	AST Medical Office (AAS)	**Medical Transcription (CSC)**	**Office Assisting (CSC)**
CST 110 (3)	•		
ENG 111 (3)	•	•	•
ENG 112 (3)	•		
MTH 120 (3) [or MTH 151 (3)]	•		
Social Science (SOC EEE) (3)	•		
AST 101 (3)	•	•	•
AST 102 (3)	•	•	•
AST 141 (3)	•	•	•
AST 154 (1)	•	•	•
AST 238 (3)	•		
AST 243 (3)	•		
AST 245 (3)	•	•	
AST 260 (3)	•		
AST 271 (3)	•	•	
AST 290 (3)	•		
AST 299 (1)	•		
HIM 143 (3)	•	•	
HLT 143 (3)	•	•	
ITE 115 (3)	•	•	•
ITE 140 (3)	•		
ITE 150 (3)	•		•
SDV 108 (1)	•	•	•
SPA 103 (3)	•		
Wellness (HLT/PED EEE) (2)	•		
Approved EEE (3)			•

Business Technology
Major: Administrative Support Technology
Specialization: Medical Office

Award: Associate of Applied Science
Length: 65 credits

Purpose: Individuals who are seeking their first employment or those who wish to qualify for promotion in a present position or to another field, including self-employment, may benefit from this program. This program prepares a student for work in a general office setting with specialized training in various medical office areas. The program enables the student to become proficient in administrative duties and provides additional skills in a medical setting.

Employment Objectives: Completion of this program may lead to employment or career advancement in any of a wide variety of positions such as administrative assistant, administrative secretary, executive secretary, medical secretary, medical transcriptionist, medical coder, customer service representative, office services specialist, and clerical supervisor.

Potential Certification: A student may elect to take an industry- specific certification exam. The examinations generally require a testing fee paid by the student. After completion of this program, a student will be academically prepared to take the following examinations:

- Microsoft Office Specialist (MOS) - Word, PowerPoint, Access, Excel.
- American Academy of Professional Coders – Certified
- Professional Coder (CPC) (requires related work experience and letters of recommendation).

Program Learning Outcomes: A student will be able to:

- Demonstrate minimum proficiency in General Education Skills which are defined as oral communication, written communication, mathematical/problem solving, scientific reasoning, information literacy, and critical thinking.
- Demonstrate the management of health information through the use of filing system and electronic health records.
- Apply mathematical reasoning skills to formulate and solve problems as applied to electronic billing.

Demonstrate proficiency with computer software, business application, and information literacy.

- Demonstrate acceptable workplace skills, attitudes, and behaviors.

General Education Requirements (15 Credits):

CST 110 Introduction to Communication (3)
ENG 111-112 College Composition I-II (6)
MTH 120 Introduction to Mathematics (3)
[or MTH 151 Mathematics for the Liberal Arts I (3)]
Social Science Elective (3) *See page 161-163*

Program Requirements (50 Credits):

AST 101 Keyboarding I (3)
AST 102 Keyboarding II (3)
AST 154 Intro to Voice Recognition Software (1)

AST 141 Word Processing (3)
AST 238 Word Processing Advanced Operations (3)
AST 243 Office Administration I (3)
AST 245 Medical Machine Transcription (3)
AST 260 Presentation Software (3)
AST 271 Medical Office Procedures I (3)
AST 290 Coordinated Internship (3)
AST 299 Supervised Study in AST (1)
HIM 143 Managing Electronic Billing in a Medical Practice (3)
HLT 143 Medical Terminology I (3)
ITE 115 Intro Computer Applications & Concepts (3)
ITE 140 Spreadsheet Software (3)
ITE 150 Desktop Database Software (3)
SDV 101 Orientation to Business Technology (1)
SDV 108 College Survival Skills (1)
SPA 103 Basic Spoken Spanish I (3)

Minimum required for degree: 65 Credits

Medical Transcription

Award: Career Studies Certificate
Length: 29 credits

Purpose: This program is designed to provide skills related to keyboarding, medical office procedures and communications, and the transcription of medical information.

Program Learning Outcomes: A student will be able to:
- Apply medical vocabulary in producing documents used in the health field.
- Document skills in using a keyboard and word processing software for speed and accuracy.

Program Requirements (29 Credits):
AST 101 Keyboarding I (3)
AST 102 Keyboarding II (3)
AST 141 Word Processing (3)
AST 154 Introduction to Voice Recognition Software (1)
AST 245 Medical Machine Transcription (3)
AST 271 Medical Office Procedures I (3)
ENG 111 College Composition I (3)
HIM 143 Managing Electronic Billing in a Medical Practice (3)
HLT 143 Medical Terminology (3)
ITE 115 Intro Computer Applications & Concepts (3)
SDV 108 College Survival Skills (1)

Student must complete the above 29 credits to be awarded the Career Studies Certificate in Medical Transcription.

Office Assisting

Award: Career Studies Certificate
Length: 23 credits

Purpose: This program is designed to provide skills in preparation for a job as an office assistant requiring tasks related to keyboarding, records management, office administration, writing, and computer use.

Program Learning Outcomes: A student will be able to:
- Demonstrate proficiency in personal computer operations and applications.
- Demonstrate various methods of filing in storing and retrieving documents both manually and electronically.
- Produce a variety of business documents using correct grammar, punctuation, and spelling in a form acceptable in today's business environment.

AST 101 Keyboarding I (3)
AST 102 Keyboarding II (3)
AST 154 Introduction to Voice Recognition Software (1)
AST 141 Word Processing (3)
ENG 111 College Composition I (3)
ITE 115 Intro Computer Applications & Concepts (3)
ITE 150 Desktop Database Software (3)
SDV 108 College Survival Skills (1)
Approved Elective (3)

Student must complete the above 23 credits to be awarded the Career Studies Certificate in Office Assisting.

Advising Sheet Suggested Schedules: Courses in advising sheets are displayed under the semester in which the courses are regularly offered. It is possible that a course shown on the schedule for a particular semester may not be offered due to low enrollment or other factors.

Advising Sheet for AAS: Business Technology: Major: Administrative Support Technology
Specialization: Medical Office 2016-17

Developmental English Pre-requisites met: _____yes _____no			
Required	ENF1	ENF2	ENF3
Met			

Developmental Math Pre-requisites met: _____yes _____no			
Required	MOD1	MOD2	MOD3
Met			

Note: Classes that are shaded meet the requirements of the Career Studies Certificate in Medical Transcription.

Fall Semester Courses:			**Completed**
AST.101	Keyboarding I	3.0	
AST.154	Intro to Voice Recognition	1.0	
ENG.111	College Composition I	3.0	_____
HLT.143	Medical Terminology	3.0	
ITE.115	Introduction to Computer Applications and Concepts	3.0	
MTH.120	Introduction to Mathematics	3.0	_____
SDV.108	College Survival Skills	1.0	
	Total	17	

Next Actions which follow or can be accomplished during the First Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester

Spring Semester Courses:			**Completed**
AST.102	Keyboarding II	3.0	_____
AST.141	Word Processing I	3.0	
AST.245	Medical Machine Transcription	3.0	
AST.271	Medical Office Procedures	3.0	
HIM.143	Managing Electronic Billing in a Medical Practice	3.0	
ITE.150	Desktop Database Software	3.0	_____
	Total	18	

Next Actions which follow or can be accomplished during the Second Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester

Fall Semester Courses:			**Completed**
AST.238	Word Processing Advanced Operations	3.0	_____
AST.243	Office Administration I	3.0	_____
AST.260	Presentation Software	3.0	_____
CST.110	Introduction to Communication	3.0	
PED.EEE	Wellness	2.0	_____
	Total	14	

Next Actions which follow or can be accomplished during the Third Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester
2. Meet with academic advisor or transfer advisor to discuss four-year transfer options.
3. Meet with Experiential Learning Coordinator to prepare resume, plan internships, and/or receive assistance with job search.
4. Apply for degree graduation.

Spring Semester Courses:			**Completed**
AST.290	Coordinated Internship	3.0	_____
AST.299	Supervised Study	1.0	_____
ENG.112	College Composition II	3.0	_____
ITE.140	Spreadsheet Software	3.0	_____
SOC.EEE	Social Science Elective	3.0	_____
SPA.103	Basic Spoken Spanish I	3.0	
	Total	16	

Advising Sheet Suggested Schedules: Courses in advising sheets are displayed under the semester in which the courses are regularly offered. It is possible that a course shown on the schedule for a particular semester may not be offered due to low enrollment or other factors

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Advising Sheet for AAS: Business Technology: Major: Administrative Support Technology
Specialization: Medical Office 2016-17

Developmental English Pre-requisites met: _____yes _____no			
Required	ENF1	ENF2	ENF3
Met			

Developmental Math Pre-requisites met: _____yes _____no			
Required	MOD1	MOD2	MOD3
Met			

Note: Classes that are shaded, plus a 3-credit hour approved elective, meet the requirements of the Career Studies Certificate in Office Assisting

Fall Semester Courses:			**Completed**
AST.101	Keyboarding I	3.0	_____
AST.154	Intro to Voice Recognition	1.0	
ENG.111	College Composition I	3.0	
HLT.143	Medical Terminology	3.0	
ITE.115	Introduction to Computer Applications and Concepts	3.0	
MTH.120	Introduction to Mathematics	3.0	_____
SDV.108	College Survival Skills	1.0	
		Total 17	

Next Actions which follow or can be accomplished during the First Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester

Spring Semester Courses:			**Completed**
AST.102	Keyboarding II	3.0	
AST.141	Word Processing I	3.0	_____
AST.245	Medical Machine Transcription	3.0	
AST.271	Medical Office Procedures	3.0	
HIM.143	Managing Electronic Billing in a Medical Practice	3.0	
ITE.150	Desktop Database Software	3.0	
		Total 18	

Next Actions which follow or can be accomplished during the Second Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester

Fall Semester Courses:			**Completed**
AST.238	Word Processing Advanced Operations	3.0	_____
AST.243	Office Administration I	3.0	_____
AST.260	Presentation Software	3.0	_____
CST.110	Introduction to Communication	3.0	
PED.EEE	Wellness	2.0	_____
		Total 14	

Next Actions which follow or can be accomplished during the Third Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester
2. Meet with academic advisor or transfer advisor to discuss four-year transfer options.
3. Meet with Experiential Learning Coordinator to prepare resume, plan internships, and/or receive assistance with job search.
4. Apply for degree graduation.

Spring Semester Courses:			**Completed**
AST.290	Coordinated Internship	3.0	_____
AST.299	Supervised Study	1.0	_____
ENG.112	College Composition II	3.0	_____
ITE.140	Spreadsheet Software	3.0	_____
SOC.EEE	Social Science Elective	3.0	_____
SPA.103	Basic Spoken Spanish I	3.0	
		Total 16	

Business Technology
Major: Management

Award: Associate of Applied Science
Length: 66-67 credits

General Business

Award: Certificate
Length: 31 credits

Management Assistant

Award: Career Studies Certificate
Length: 28 credits

Supervision

Award: Career Studies Certificate
Length: 28 credits

	Business Tech. Mgmt. (AAS)	General Business (CERT)	Mgmt. Assistant (CSC)	Super-vision (CSC)
CST.110 (3)	●		●	●
ECO.201 (3)	●	●		
ENG.111 (3)	●	●	●	●
ENG.112 (3)	●		●	
MTH.120 (3)	●	●	●	
Science.EEE (3-4)	●			
ACC.211	●	●	●	
BUS.100 (3) or BUS 111 (3)	●	●		●
BUS.125 (3) or BUS 112 (3)	●	●		●
BUS.165 (3)	●			
BUS.200 (3)	●	●	●	●
BUS.205 (3)	●		●	●
BUS.241 (3)	●	●		
BUS.280 (3)	●			
BUS.290 (3)	●			
BUS.299 (1)	●			
FIN.215 (3)	●			
ITE.115 (3)	●	●	●	●
ITE.130 (3)	●			●
ITE.140 (3)	●			
MKT.100 (3)	●	●		
MKT.260 (3)	●		●	●
PED/HLT.EEE (1)	●			
SDV 108 (1)	●	●	●	●

Major: Management

Award: Associate of Applied Science
Length: 66-67 credits

Purpose: This program provides knowledge and skills leading to immediate employment in the area of management within a small to mid-size business or retail setting. People who are seeking their first employment or wish to qualify for promotion in a present position to another field may benefit from this program.

Occupational Objectives: Graduates of this program may qualify for positions in general management, manufacturing or industrial management, customer service, sales management or retail management.

Potential Certification: A student may elect to take an industry-specific certification exam. Examinations generally require a testing fee paid by the student. After completion of this program, a student will be academically prepared to take the following exams:

- Microsoft Office Specialist (MOS) – Excel.

Program Learning Outcomes: A student will be able to:

- Demonstrate minimum proficiency in General Education Skills which are defined as oral communication, written communication, mathematical/problem solving, scientific reasoning, information literacy, and critical thinking.
- Outline the decision making process for managers using various decision making techniques.
- Demonstrate the ability to gather, interpret, and disseminate financial information.
- Demonstrate acceptable workplace skills, attitudes, and behaviors.

General Education Requirements (18-19 Credits):

CST 110 Introduction to Communication (3)
ECO 201 Principles of Macroeconomics (3)
[or ECO 202 Principles of Microeconomics (3)]
ENG 111-112 College Composition I-II (6)
MTH 120 Introduction to Mathematics (3)
[or MTH 151 Mathematics for the Liberal Arts I (3)]
Science Elective (3-4) *See page 161-163*
[or AGR 141 Intro to Animal Science and Technology (4)]

Program Requirements (48) Credits):

ACC 211 Principles of Accounting I (3)
BUS 100 Introduction to Business (3)
[or BUS 111 Principles of Supervision I (3)]
BUS 125 Applied Business Mathematics (3)
[or BUS 112 Principles of Supervision II (3)]
BUS 165 Small Business Management (3)
BUS 200 Principles of Management (3)
BUS 205 Human Resource Management (3)
BUS 241 Business Law I (3)
BUS 280 Introduction to International Business (3)
BUS 290 Coordinated Internship (3)
[or BUS 297 Cooperative Education (3)]
BUS 299 Supervised Study/Business Management (1)
FIN 215 Financial Management (3)
ITE 115 Intro. Computer Applications & Concepts (3)
ITE 130 Introduction to Internet Services (3)
ITE 140 Spreadsheet Software (3)
MKT 100 Principles of Marketing (3)
MKT 260 Customer Service Management (3)
SDV 108 College Survival Skills (1)
Wellness PED EEE (1) *See page 161-163*

Minimum required for degree: 66-67 Credit

General Business

Award: Certificate
Length: 31 credits

Purpose: This program is designed to provide additional knowledge and skills for persons seeking immediate employment in local business and those who wish to become better prepared to operate their own small business.

Occupational Objectives: Employment opportunities might include assistant department head, office manager, small business manager or assistant manager.

Admission Requirements: Students must meet the general admission requirements established by the college. Students with deficiencies in English or mathematics must complete appropriate developmental education courses. Students with deficiencies in computer skills will complete additional coursework.

Curriculum Requirements: Students must satisfactorily complete each of the requirements listed below in order to be awarded this certificate.

Program Learning Outcomes: A student will be able to:

- Demonstrate effective written communication skills in a business setting.
- Apply mathematical reasoning skills to formulate and solve problems.
- Describe and use general business knowledge and skills, including managerial and supervisory concepts.
- Apply the principles of financial accounting.
- Demonstrate proficiency in personal computer operations and applications.
- Demonstrate accepted ethical behaviors and interpersonal skills that reflect an understanding of diversity and teamwork.
- Describe contemporary approaches to management and methods to create a positive work environment.

General Education Requirements (9 Credits):

ECO	201	Principles of Macroeconomics (3)
		[or ECO 202 Principles of Microeconomics (3)]
ENG	111	College Composition I (3)
MTH	120	Introduction to Mathematics (3)

Program Requirements (22 Credits):

ACC	211	Principles of Accounting I (3)
BUS	100	Introduction to Business (3)
BUS	125	Applied Business Mathematics (3)
BUS	200	Principles of Management (3)
BUS	241	Business Law I (3)
ITE	115	Introduction to Computer Applications & Concepts (3)
MKT	100	Principles of Marketing (3)
SDV	108	College Survival Skills (1)

Minimum required for certificate: 31 Credits

Management Assistant

Award: Career Studies Certificate
Length: 28 credits

Purpose: This program is designed to provide an individual with basic foundation management skills in the area of general management principles, human resources, communications, psychology, and accounting.

Program Learning Outcomes: A student will be able to:

- Describe and use general business knowledge and skills, including managerial and supervisory concepts.
- Demonstrate ability to reason critically and problem-solve.
- Demonstrate accepted ethical behaviors and interpersonal skills that reflect an understanding of diversity and teamwork.

ACC	211	Principles of Accounting I (3)
BUS	200	Principles of Management (3)
BUS	205	Human Resource Management (3)
CST	110	Introduction to Communication (3)
ENG	111-112	College Composition I-II (6)
ITE	115	Introduction to Computer Applications & Concepts (3)
MKT	260	Customer Service Management (3)
MTH	120	Introduction to Mathematics (3)
SDV	108	College Survival Skills (1)

Student must complete the above 28 credits to be awarded the Career Studies Certificate in Management Assistant.

Supervision

Award: Career Studies Certificate
Length: 28 credits

Purpose: This program is designed to provide the business professional with skills related to the effective supervision of personnel.

Program Learning Outcomes: A student will be able to:

- Describe and use general business knowledge and skills, including managerial and supervisory concepts.
- Demonstrate accepted ethical behaviors and interpersonal skills that reflect an understanding of diversity and teamwork.
- Describe contemporary approaches to management and methods to create a positive work environment.

BUS	111	Principles of Supervision I (3)
BUS	112	Principles of Supervision II (3)
BUS	200	Principles of Management (3)
BUS	205	Human Resource Management (3)
CST	110	Introduction to Communication (3)
ENG	111	College Composition I (3)
ITE	115	Intro. Computer Applications & Concepts (3)
ITE	130	Introduction to Internet Services (3)
MKT	260	Customer Service Management (3)
SDV	108	College Survival Skills (1)

Student must complete the above 28 credits to be awarded the Career Studies Certificate in Supervision.

Advising Sheet Suggested Schedules: Courses in advising sheets are displayed under the semester in which the courses are regularly offered. It is possible that a course shown on the schedule for a particular semester may not be offered due to low enrollment or other factors.

Advising Sheet for AAS: Business Technology: Major: Management 2016-17

Developmental English Pre-requisites met: _____yes _____no			
Required	ENF1	ENF2	ENF3
Met			

Developmental Math Pre-requisites met: _____yes _____no			
Required	MOD1	MOD2	MOD3
Met			

Note: Classes that are shaded meet the requirements of the Certificate in General Business. Classes marked with an (M) meet the requirements of the Career Studies Certificate in Management Assistant. Class marked with an (S) meet the requirements of the Career Studies Certificate in Supervision.

Fall Semester Courses:				**Completed**
S	BUS.100	Introduction to Business	3.0	_____
M,S	CST.110	Introduction to Speech Communication	3.0	_____
M,S	ENG.111	College Composition I	3.0	_____
M	ACC.211	Principles of Accounting I	3.0	_____
M,S	BUS.205	Human Resource Management	3.0	_____
M,S	SDV. 108	College Survival Skills	1.0	_____
		Total	16	

Next Actions which follow or can be accomplished during the First Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester

Spring Semester Courses:				**Completed**
M,S	BUS.200	Principles of Management	3.0	_____
S	ECO.201	Principles of Macroeconomics	3.0	_____
M	ENG.112	College Composition II	3.0	_____
M,S	ITE.115	Introduction to Computer Applications and Concepts	3.0	
S	ITE.130	Introduction to Internet Services	3.0	_____
M	MTH.120	Introduction to Mathematics	3.0	
		Total	18	

Next Actions which follow or can be accomplished during the Second Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester

Fall Semester Courses:				**Completed**
S	BUS.125	Applied Business Mathematics	3.0	_____
	BUS.241	Business Law I	3.0	_____
	BUS.280	Introduction to International Business	3.0	_____
	MKT.100	Principles of Marketing	3.0	_____
	ITE.140	Spreadsheet Software	3.0	
	Wellness.EEE	Wellness Elective	1.0	_____
		Total	16	

Next Actions which follow or can be accomplished during the Third Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester
2. Meet with Experiential Learning Coordinator to prepare resume, plan internships, and/or receive assistance with job search
3. Apply for graduation.

Spring Semester Courses:			**Completed**
BUS.165	Small Business Management	3.0	_____
BUS.290	Coordinated Internship	3.0	_____
BUS.299	Supervised Study In	1.0	_____
FIN.215	Financial Management	3.0	_____
MKT.260	Customer Service Management	3.0	_____
Science.EEE	Science Elective with Lab	4.0	_____
	Total	17	

Business

Business Technology Major: Management

Specialization: Agribusiness

Award: Associate of Applied Science
Length: 66-67 credits

Purpose: To provide a response to current and anticipated workforce shortage in the agribusiness industry. Individuals who are interested in owning or seeking employment in managing an agribusiness, farm, nursery, greenhouse, or other related fields may benefit from this program. The Agribusiness program will prepare the student to enter the rapidly changing areas of agricultural business and the challenges that are currently facing today's agricultural industry. Agriculture is facing a period of change trying to compete in today's world markets and to provide food for the growing worlds populations.

Occupational Objectives: Graduates of this program may qualify for positions in general management, manufacturing or industrial management, customer service, sales management or retail management.

Potential Certification: A student may elect to take an industry specific certification/license exam. Examinations generally require a testing fee paid by the student. After completion of this program, a student will be academically prepared to take the following exams:

- Microsoft Office Specialist (MOS) – Excel.
- Private Pesticide Applicator License.

Program Learning Outcomes: A student will be able to:

- Demonstrate minimum proficiency in General Education Skills which are defined as oral communication, written communication, mathematical/problem solving, scientific reasoning, information literacy and critical thinking.
- Outline the decision making process for managers using various decision making techniques.
- Demonstrate the ability to gather, interpret, and disseminate financial information.
- Demonstrate acceptable workplace skills, attitudes, and behaviors.
- Demonstrate a working knowledge of food production, biosecurity and quality control practices.
- Demonstrate skills to market agriculture commodities and services.
- Demonstrate knowledge of agriculture chemical uses and how to effectively use them with minimal effects on the environment.

Graduation Requirements: In order to meet Patrick Henry Community College graduation requirements, all associates-degree students must complete Virginia Community College Core Competency testing. Testing is an on-going process and will be primarily administered during the capstone course (or other designated course) associated with a given degree. Please see the program advisor to determine and schedule appropriate times to complete Core Competency testing.

General Education Requirements (18-19 Credits):

CST	110	Introduction to Communication (3)
ECO	201	Principles of Macroeconomics (3)
		[or ECO 202 Principles of Microeconomics (3)]
ENG	111-112	College Composition I-II (6)
MTH	120	Introduction to Mathematics (3)
		[or MTH 151 Mathematics for the Liberal Arts I (3)]
Science Elective (3-4)		*See page 161-163*
		[or AGR 141 Intro to Animal Science and Technology (4)]

Program Requirements (35Credits):

ACC	211	Principles of Accounting I (3)
BUS	100	Introduction to Business (3)
		[or BUS 111 Principles of Supervision I (3)]
BUS	165	Small Business Management (3)
BUS	205	Human Resource Management (3)
BUS	241	Business Law I (3)
BUS	290	Coordinated Internship (3)
		[or BUS 297 Cooperative Education (3)]
BUS	299	Supervised Study Business Management (1)
FIN	215	Financial Management (3)
ITE	115	Intro. Computer Applications & Concepts (3)
ITE	140	Spreadsheet Software (3)
MKT	160	Marketing for Small Business (3)
SDV	108	College Survival Skills (1)
Wellness		PED EEE (1) *See page 161-163*

Agribusiness (15 Credits):

AGR	231	Agribusiness Marketing Risk Management, and Entrepreneurship (3)
AGR	142	Intro to Plant Science and Technology (3)
AGR	205	Soil Fertility and Management (3)
AGR	233	Food Production, Safety, Biosecurity, Quality Control (3)
AGR	234	Chemical Applications/Pest Management (3)

Minimum required for degree: 67-66 Credits

Advising Sheet Suggested Schedules: Courses in advising sheets are displayed under the semester in which the courses are regularly offered. It is possible that a course shown on the schedule for a particular semester may not be offered due to low enrollment or other factors.

Advising Sheet for AAS: Specialization: Agribusiness 2016-17

Developmental English Pre-requisites met: _____yes _____no			
Required	ENF1	ENF2	ENF3
Met			

Developmental Math Pre-requisites met: _____yes _____no			
Required	MOD1	MOD2	MOD3
Met			

Fall Semester Courses:			**Completed**
AGR.141	Introduction to Animal Science and Technology	4.0	_____
AGR.142	Introduction to Plant Science and Technology	3.0	_____
BUS.100 or BUS.111	Introduction to Business or Principles of Supervision	3.0	_____
ITE.115	Introduction to Computer Applications and Concepts	3.0	_____
MTH.120	Introduction to Mathematics	3.0	_____
SDV.108	College Survival Skills	1.0	_____
		Total 17	

Next Actions which follow or can be accomplished during the First Semester
1 .During Early Bird Registration, meet with academic advisor to enroll in next semester

Spring Semester Courses:			**Completed**
BUS.241	Business Law I	3.0	
CST.110	Introduction to Speech Communication	3.0	_____
ENG.111	College Composition I	3.0	_____
ECO.201	Principles of Macroeconomics	3.0	_____
ITE.140	Spreadsheet Software	3.0	_____
Wellness.Elective		1.0	_____
		Total 16	

Next Actions which follow or can be accomplished during the Second Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester

Fall Semester Courses:			**Completed**
ACC.211	Principles of Accounting I	3.0	_____
AGR.231	Agribusiness Marketing, Risk Management, and Entrepreneurship	3.0	_____
AGR.233	Food Production, Safety, Biosecurity, and Quality Control	3.0	_____
AGR.234	Chemical Application and Pest Management	3.0	_____
BUS.205	Human Resource Management	3.0	_____
ENG.112	College Composition II	3.0	_____
		Total 18	

Next Actions which follow or can be accomplished during the Third Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester
2. Apply for graduation.
3. Meet with Experiential Learning Coordinator to prepare resume, plan internships, and/or receive assistance with job search.

Spring Semester Courses:			**Completed**
AGR.205	Soil Fertility and Management	3.0	_____
BUS.165	Small Business Management	3.0	_____
BUS.290	Coordinated Internship	3.0	_____
BUS.299	Supervised Study In	1.0	_____
FIN.215	Financial Management	3.0	_____
MKT.260	Customer Service Management	3.0	_____
		Total 16	

Business

Business Technology Major: Management

Specialization: Culinary and Hospitality Management

Award: Associate of Applied Science
Length: 66-67 credits

Purpose: To provide a response to current and anticipated workforce shortage in the hospitality industry. Individuals who are interested in owning or seeking employment in managing a restaurant, bakery, hospital, or other related fields may benefit from this program. The Culinary and Hospitality Management program will prepare the student to enter the rapidly changing areas of hospitality and the challenges that are currently facing today's hospitality industry. Culinary and hospitality is facing a period of change trying to compete in today's world markets and to provide healthy and safe food for the growing worlds populations.

Occupational Objectives: Graduates of this program may qualify for positions in restaurant management, general hospitality management, customer service, or kitchen management positions.

Potential Certification: A student may elect to take an industry specific certification/license exam. Examinations generally require a testing fee which is built in to textbook costs. After completion of this program, a student will be academically prepared to take the *ServSafe Manager Certification*.

Program Learning Outcomes: A student will be able to:

- Demonstrate minimum proficiency in General Education Skills which are defined as oral communication, written communication, mathematical/problem solving, scientific reasoning, information literacy and critical thinking.
- Outline the decision making process for managers using various decision making techniques.
- Demonstrate the ability to gather, interpret, and disseminate financial information.
- Demonstrate acceptable workplace skills, attitudes, and behaviors.
- Demonstrate a working knowledge of food production, and quality control practices.
- Demonstrate skills to manage food service tasks and services
- Demonstrate knowledge of food production and dining.

General Education Requirements (18-19 Credits):

CST	110	Introduction to Communication (3)
ECO	201	Principles of Macroeconomics (3)
		[or ECO 202 Principles of Microeconomics (3)]
ENG	111-112	College Composition I-II (6)
MTH	120	Introduction to Mathematics (3)
		[or MTH 151 Mathematics for the Liberal Arts I (3)]
Science Elective (3-4)		*See page 161-163*
		[or AGR 141 Intro to Animal Science and Technology (4)]

Program Requirements (35 Credits):

ACC	211	Principles of Accounting I (3)
BUS	100	Introduction to Business (3)
		[or BUS 111 Principles of Supervision I (3)]
BUS	165	Small Business Management (3)
BUS	205	Human Resource Management (3)
BUS	241	Business Law I (3)
BUS	290	Coordinated Internship (3)
		[or BUS 297 Cooperative Education (3)]
BUS	299	Supervised Study Business Management (1)
FIN	215	Financial Management (3)
ITE	115	Intro. Computer Applications & Concepts (3)
ITE	140	Spreadsheet Software (3)
MKT	260	Customer Service Management (3)
SDV	108	College Survival Skills (1)
Wellness		PED EEE (1) *See page 161-163*

Culinary and Hospitality Management (15 Credits):

HRI	219	Stock, Soup, and Sauce Preparation (3)
HRI	218	Fruit, Vegetable, and Starch Preparation (3)
HRI	158	Sanitation and Safety (3)
HRI	220	Meat, Seafood and Poultry Preparation (3)
HRI	207	American Regional Cuisine (3)

Minimum required for degree: 66-67 Credits

Advising Sheet Suggested Schedules: Courses in advising sheets are displayed under the semester in which the courses are regularly offered. It is possible that a course shown on the schedule for a particular semester may not be offered due to low enrollment or other factors.

Advising Sheet for AAS: Specialization: Culinary and Hospitality Management 2016-17

Developmental English Pre-requisites met: _____yes _____no			
Required	ENF1	ENF2	ENF3
Met			

Developmental Math Pre-requisites met: _____yes _____no			
Required	MOD1	MOD2	MOD3
Met			

Fall Semester Courses:			**Completed**
HRI.219	Stock, Soup, and Sauce Preparation	3.0	_____
BUS.100 [or BUS.111]	Introduction to Business [or Principles of Supervision I]	3.0	_____
ITE.115	Introduction to Computer Applications and Concepts	3.0	_____
MTH.120	Introduction to Mathematics	3.0	_____
SDV.101	Orientation To	1.0	_____
SDV.108	College Survival Skills	1.0	_____
Science.EEE	Science Elective	4.0	_____
		Total 17	

Next Actions which follow or can be accomplished during the First Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester

Spring Semester Courses:			**Completed**
CST.110	Introduction to Speech Communication	3.0	_____
HRI.218	Fruit, Vegetable, and Starch Preparation	3.0	_____
ENG.111	College Composition I	3.0	_____
ECO.201	Principles of Macroeconomics	3.0	_____
ITE.140	Spreadsheet Software	3.0	_____
Wellness.EEE	Wellness Elective	1.0	_____
		Total 17	

Next Actions which follow or can be accomplished during the Second Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester

Fall Semester Courses:			**Completed**
ACC.211	Principles of Accounting I	3.0	_____
HRI.158	Sanitation and Safety	3.0	_____
HRI.220	Meat, Seafood and Poultry Preparation	3.0	_____
BUS.205	Human Resource Management	3.0	_____
BUS.241	Business Law I	3.0	_____
ENG.112	English Composition II	3.0	
		Total 18	

Next Actions which follow or can be accomplished during the Third Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester
2. Apply for graduation.
3. Meet with Experiential Learning Coordinator to prepare resume, plan internships, and/or receive assistance with job search.
4. Discuss eligibility for certificate, career studies certificate, and/or industry credential completion with academic advisor.

Spring Semester Courses:			**Completed**
HRI.207	American Regional Cuisine	3.0	_____
BUS.165	Small Business Management	3.0	_____
BUS.290	Coordinated Internship	3.0	_____
BUS.299	Supervised Study In	1.0	_____
FIN.215	Financial Management	3.0	_____
MKT.260	Customer Service Management	3.0	_____
		Total 16	

Business

Business Technology
Major: Management
Specialization: Entrepreneurship/Small Business

Award: Associate of Applied Science
Length: 66-67 credits

Entrepreneurial and Small Business Management

Award: Career Studies Certificate
Length: 28 credits

	Business Technology: Management Specialization Entrepreneurship/ Small Business (AAS)	Entrepreneurial and Small Business Management (CSC)
CST.110 (3)	●	
ECO.201 (3)	●	
ENG.111 (3)	●	●
ENG.112 (3)	●	
MTH.120 (3)	●	
Science.Elective (3-4)	●	
ACC.211	●	
BUS.100 (3) or BUS 111 (3)	●	
BUS.125 (3) or BUS 112 (3)	●	
BUS.165 (3)	●	●
BUS.241 (3)	●	
BUS.290 (3)	●	
BUS.299 (1)	●	
ITE.115 (3)	●	●
ITE.130 (3)	●	
ITE.140 (3)	●	●
MKT.100 (3)	●	
MKT.260 (3)	●	●
PED/HLT.Elective (1)	●	
SDV 108 (1)	●	●
ACC.124 (3)	●	●
BUS.116 (3)	●	●
BUS.160 (1)	●	●
FIN.260 (2)	●	●
MKT.160 (3)	●	●

Business Technology
Major: Management
Specialization: Entrepreneurship/Small Business

Award: Associate of Applied Science
Length: 66-67 credits

Purpose: Individuals, who are seeking their first job or those who wish to qualify for promotion in a present position or to another field, including self-employment, may benefit from this program. Students will be provided knowledge, skills, and training necessary to start a business and manage the functional areas of the business to become a successful entrepreneur. Coursework includes instruction in mathematics, critical thinking, technical writing, interpersonal relationships, communications, team building, human relations, management, law, computer applications and the Internet, accounting, marketing, international business, electronic commerce, small business management, small business marketing, taxation for the small business, financing for the small business, and other areas related to small business management and the entrepreneur.

Occupational Objectives: Completion of this program may lead to employment or career advancement in a wide variety of positions such as entrepreneur, small business owner, small business advisor, small business partner, proprietor, owner-operator, or consultant for small business.

Potential Certification: A student may elect to take an industry-specific certification exam. The examinations generally require a testing fee paid by the student. After completion of this program, a student will be academically prepared to take the following examinations:

- Microsoft Office Specialist (MOS) – Excel.

Program Learning Outcomes: A student will be able to:

- Demonstrate minimum proficiency in General Education Skills which are defined as oral communication, written communication, mathematical/problem solving, scientific reasoning, information literacy, and critical thinking.
- Outline the decision making process for managers using various decision making techniques.
- Demonstrate the ability to gather, interpret, and disseminate financial information.
- Demonstrate acceptable workplace skills, attitudes, and behaviors.
- Explain the importance of entrepreneurial qualities and describe the characteristics of successful entrepreneurs.
- Create a business plan necessary to initiate and open a small business.

General Education Requirements (18-19 Credits):

CST 110 Introduction to Communication (3)
ECO 201 Principles of Macroeconomics (3)
[or ECO 202 Principles of Microeconomics (3)]
ENG 111-112 College Composition I-II (6)
MTH 120 Introduction to Mathematics (3)
[or MTH 151 Mathematics for the Liberal Arts I (3)]
Science Elective (3-4) *See page 161-163*
[or AGR 141 Intro to Animal Science and Technology (4)]

Program Requirements (36 Credits):

ACC 211 Principles of Accounting I (3)
BUS 100 Introduction to Business (3)
[or BUS 111 Principles of Supervision I (3)]
BUS 125 Applied Business Mathematics (3)
[or BUS 112 Principles of Supervision II (3)]
BUS 165 Small Business Management (3)
BUS 241 Business Law I (3)
BUS 290 Coordinated Internship (3)
[or BUS 297 Cooperative Education (3)]

BUS	299	Supervised Study/Business Management (1)
ITE	115	Intro. Computer Applications & Concepts (3)
ITE	130	Introduction to Internet Services (3)
ITE	140	Spreadsheet Software (3)
MKT	100	Principles of Marketing (3)
MKT	260	Customer Service Management (3)
SDV	108	College Survival Skills (1)
Wellness		PED EEE (1) *See page 161-163*

Entrepreneurship/Small Business (12 credits):

ACC	124	Payroll Accounting (3)
BUS	116	Entrepreneurship (3)
BUS	160	Legal Aspects for Small Business Operation (1)
FIN	260	Financial Management for Small Business (2)
MKT	160	Marketing for Small Business (3)

Minimum required for degree: 66-67 Credits

Entrepreneurial and Small Business Management

Award: Career Studies Certificate
Length: 28 credits

Purpose: This program is designed to provide an entrepreneur with skills in establishing and maintaining a successful small business.

Program Learning Outcomes: A student will be able to:

- Explain the importance of entrepreneurial qualities and describe the characteristics of successful entrepreneurs.
- Create a business plan necessary to initiate and open a small business.

ACC	124	Payroll Accounting (3)
BUS	116	Entrepreneurship (3)
BUS	160	Legal Aspects for Small Business Operations (1)
BUS	165	Small Business Management (3)
ENG	111	College Composition I (3)
FIN	260	Financial Management for Small Business (2)
ITE	115	Introduction to Computer Applications & Concepts (3)
ITE	140	Spreadsheet Software (3)
MKT	160	Marketing for Small Business (3)
MKT	260	Customer Service Management (3)
SDV	108	College Survival Skills (1)

Student must complete the above 28 credits to be awarded the Career Studies Certificate in Small Business Management.

Culinary and Hospitality Management

Award: Career Studies Certificate
Length: 29 credits

Purpose: This program prepares graduates to fulfill mid to upper level responsibilities in the hospitality industry.

Program Learning Outcomes: Upon completion, each student has the knowledge base in food production, dining and managing food service tasks to work as lead cook in the food service field.

BUS	165	Small Business Management (3)
BUS	205	Human Resource Management (3)
HRI	145	Garde Manger (3)
HRI	158	Sanitation and Safety (3)
		[or approved HRI Elective (3)]
HRI	207	American Regional Cuisine (3)
HRI	218	Fruit, Vegetable, and Starch Preparation (3)
HRI	219	Stock, Soup, and Sauce Preparation (3)
HRI	220	Meat, Seafood and Poultry Preparation (3)
HRI	251	Food and Beverage Cost Control I (3)
HRI	290	Internship in Culinary Arts (2)

Students must complete the above 29 credit hours to be awarded the Career Studies Certificate in Culinary and Hospitality Management.

Advising Sheet Suggested Schedules: Courses in advising sheets are displayed under the semester in which the courses are regularly offered. It is possible that a course shown on the schedule for a particular semester may not be offered due to low enrollment or other factors.

Advising Sheet for AAS: Business Technology: Major: Management
Specialization: Entrepreneurship/Small Business 2016-17

Developmental English Pre-requisites met: _____yes _____no			
Required	ENF1	ENF2	ENF3
Met			

Developmental Math Pre-requisites met: _____yes _____no									
Required	MOD1	MOD2	MOD3						
Met									

Note: Classes that are shaded meet the requirements of the Career Studies Certificate in Entrepreneurial and Small Business Management.

Fall Semester Courses:			**Completed**
ACC.211	Principles of Accounting I	3.0	
BUS.100	Introduction to Business	3.0	_____
ENG.111	College Composition I	3.0	_____
ITE.115	Introduction to Computer Applications and Concepts	3.0	_____
MTH.120	Introduction to Mathematics	3.0	_____
SDV. 108	College Survival Skills	1.0	_____
		Total 16	

Next Actions which follow or can be accomplished during the First Semester
1.During Early Bird Registration, meet with academic advisor to enroll in next semester

Spring Semester Courses:			**Completed**
ACC.124	Payroll Accounting	3.0	
BUS.116	Entrepreneurship	3.0	_____
BUS.160	Marketing for Small Business	1.0	
BUS.165	Small Business Management	3.0	_____
ENG.112	College Composition II	3.0	_____
FIN.260	Financial Management for Small Business	2.0	
MKT.160	Marketing for Small Business	3.0	
		Total 18	

Next Actions which follow or can be accomplished during the Second Semester
1.During Early Bird Registration, meet with academic advisor to enroll in next semester

Fall Semester Courses:			**Completed**
BUS.125	Applied Business Mathematics	3.0	_____
BUS.241	Business Law I	3.0	_____
MKT.100	Principles of Marketing	3.0	_____
MKT.260	Customer Service Management	3.0	
ITE.140	Spreadsheet Software	3.0	
PED/HLT.EEE	Wellness Elective	1.0	_____
		Total 16	

Next Actions which follow or can be accomplished during the Third Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester
2. Meet with Experiential Learning Coordinator to prepare resume, plan internships, and/or receive assistance with job search
3. Apply for graduation.

Spring Semester Courses:			**Completed**
BUS.290	Coordinated Internship	3.0	_____
BUS.299	Supervised Study In	1.0	_____
ECO.201	Principles of Macroeconomics	3.0	
ITE.130	Introduction to Internet Services	3.0	_____
CST.110	Introduction to Speech Communication	3.0	_____
Science.EEE	Science Elective with Lab	4.0	_____
		Total 17	

Legal Assisting

Award: Associate of Applied Science
Length: 68 credits

Purpose: The curriculum provides knowledge and skills leading to employment in the field of paraprofessionals in the legal setting.

Occupational Objectives: A graduate of this program may work as a paralegal or legal assistant in law offices, law enforcement agencies, court systems, municipal offices, corporate office - contract/legal department, banks, real estate offices, insurance agencies, and contracting agencies.

Program Learning Outcomes: A student will be able to:

- Demonstrate minimum proficiency in General Education Skills which are defined as oral communication, written communication, mathematical/problem solving, scientific reasoning, information literacy, and critical thinking.
- Produce a variety of legal documents using correct grammar, punctuation, and spelling in a format acceptable for the modern business environment.
- Demonstrate acceptable workplace skills, attitudes, and behaviors.

General Education Requirements (18 Credits):

CST	110	Introduction to Communication (3)	
ENG	111-112	College Composition I-II (6)	
MTH	120	Introduction to Mathematics (3)	
PLS	211	U. S. Government I (3)	
Social Science Elective (3)			*See page 161-163*

Program Requirements (50 Credits):

ADJ	130	Introduction to Criminal Law (3)	
BUS	125	Applied Business Mathematics (3)	
ITE	115	Intro. to Computer Applications & Concepts (3)	
LGL	110	Introduction to Law and the Legal Assistant (3)	
LGL	115	Real Estate Law for Legal Assistants (3)	
LGL	117	Family Law (3)	
LGL	125	Legal Research (3)	
LGL	126	Legal Writing (3)	
LGL	200	Ethics for the Legal Assistant (1)	
LGL	215	Torts (3)	
LGL	219	Basics of Litigation Support (3)	
LGL	225	Estate Planning and Probate (3)	
LGL	226	Real Estate Abstracting (3)	
LGL	230	Legal Transactions (3)	
LGL	290	Coordinated Internship (2)	
LGL	299	Supervised Study in Legal Assisting (1)	
SDV	101	Orientation to Legal Assisting (1)	
SDV	108	College Survival Skills (1)	
ELECTIVES (3)		Selected from ADJ, AST, IST, or advisor approval	
HLT-PED		PED EEE Electives (2)	*See page 161-163*

Minimum required for degree: 68 Credits

Advising Sheet Suggested Schedules: Courses in advising sheets are displayed under the semester in which the courses are regularly offered. It is possible that a course shown on the schedule for a particular semester may not be offered due to low enrollment or other factors.

Advising Sheet for AAS: Legal Assisting 2016-17

Developmental English Pre-requisites met: _____yes _____no			
Required	ENF1	ENF2	ENF3
Met			

Developmental Math Pre-requisites met: _____yes _____no			
Required	MOD1	MOD2	MOD3
Met			

Fall Semester Courses:			**Completed**
ENG.111	College Composition I	3.0	_____
ITE.115	Introduction to Computer Applications and Concepts	3.0	_____
LGL.110	Introduction to Law and the Legal Assistant	3.0	_____
LGL.125	Legal Research	3.0	_____
LGL.200	Ethics for the Legal Assistant	1.0	_____
MTH.120	Introduction to Mathematics	3.0	_____
SDV.101	Orientation To	1.0	_____
SDV.108	College Survival Skills	1.0	_____
		Total 18	

Next Actions which follow or can be accomplished during the First Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester

Spring Semester Courses:			**Completed**
BUS.125	Applied Business Mathematics	3.0	_____
ENG.112	College Composition II	3.0	_____
LGL.126	Legal Writing	3.0	_____
LGL.215	Torts	3.0	_____
CST.110	Introduction to Speech Communication	3.0	_____
SOC.EEE	Social Science Elective	3.0	_____
		Total 18	

Next Actions which follow or can be accomplished during the Second Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester

Fall Semester Courses:			**Completed**
PED.EEE	PE Elective	2.0	_____
LGL.115	Real Estate Law for Legal Assistants	3.0	_____
LGL.117	Family Law	3.0	_____
LGL.230	Legal Transactions	3.0	_____
PLS.211	U.S. Government I	3.0	_____
EEE.EEE	General Elective	3.0	_____
		Total 17	

Next Actions which follow or can be accomplished during the Third Semester
1 .During Early Bird Registration, meet with academic advisor to enroll in next semester
2. Meet with Academic Advisor and Experiential Learning Coordinator to prepare resume, plan internships and/or receive assistance with job search
3. Apply for degree graduation

Spring Semester Courses:			**Completed**
ADJ.130	Introduction To Criminal Law	3.0	_____
LGL.219	Basics of Litigation Support	3.0	_____
LGL.225	Estate Planning and Probate	3.0	_____
LGL.226	Real Estate Abstracting	3.0	_____
LGL.290	Coordinated Internship	2.0	_____
LGL.299	Supervised Study In (discipline)	1.0	_____
		Total 15	

Health Sciences and Public Safety

Administration of Justice

Award: Associate Applied Science
Length: 67 credits

Justice Studies

Award: Career Studies Certificate
Length: 19 credits

	Administration of Justice (AAS)	Justice Studies (CSC)
ENG.111 (3)	●	
ENG.112 (3)	●	
MTH.120 (3)	●	
PLS.211 (3)	●	
PLS.212 (3)	●	
CST.110 (3)	●	
PSY.200 (3)	●	
SOC.200 (3)	●	
ADJ.100 (3)	●	●
ADJ.105 (3)	●	●
ADJ.111 (3)	●	●
ADJ.130 (3)	●	
ADJ.131 (3)	●	
ADJ.146 (3)	●	●
ADJ.201 (3)	●	●
ADJ.228 (3)	●	●
ADJ.236 (3)	●	
ADJ.237 (3)	●	
ADJ.280 (1)	●	
ADJ.299 (1)	●	
ITE.115 (3)	●	
PED/HLT Elective (3)	●	
SDV.101 (1)	●	
SDV 108 (1)	●	●

Administration of Justice

Award: Associate Applied Science
Length: 67 credits

Purpose: The curriculum is designed to provide a theoretical and practical understanding of the criminal justice profession in local, state, and federal criminal justice systems.

Program Learning Outcomes: The student will be able to:

- Demonstrate minimum proficiency in General Education Skills which are defined as oral communication, written communication, mathematical/problem solving, scientific reasoning, information literacy and critical thinking.
- Demonstrate competency of effects of crime, law, and law enforcement systems in society.
- Demonstrate competency of legal and non-legal drugs including identification, societal influences, and legal consequences.
- Demonstrate proficiency to evaluate tort and criminal case charges, elements, victims, perpetrators, and outcomes.
- Demonstrate proficiency of proper criminal investigation methods that follow laws from judicial, executive, and legislative branches.
- Demonstrate acceptable workplace skills, attitudes, and behaviors.

Occupational Objectives: The program prepares students for career service in the following areas: local and state police departments, federal agencies, correctional institutions, and security officers in commercial or industrial areas.

General Education Requirements (24 Credits):

CST 110 Introduction to Communication (3)
ENG 111-112 College Composition I-II (6)
MTH 120 Introduction to Mathematics (3)
PLS 211-212 U.S. Government I-II (6)
[or HIS 101-102 History of Western Civilization (6)]
[or HIS 121-122 U.S. History I-II (6)]
PSY 200 Introduction to Psychology I (3)
SOC 200 Introduction to Sociology I (3)

Program Requirements (43 Credits):

ADJ 100 Survey of Criminal Justice (3)
ADJ 105 The Juvenile Justice System (3)
ADJ 201 Criminology (3)
ADJ 111 Law Enforcement Organization & Administration I (3)
ADJ 130 Introduction to Criminal Law (3)
ADJ 131 Legal Evidence I (3)
ADJ 146 Adult Correctional Institutions (3)
[or ADJ 140 Introduction to Corrections (3)]
[or ADJ 145 Corrections and the Community (3)]
ADJ 228 Narcotics and Dangerous Drugs (3)
ADJ 236 Principles of Criminal Investigation (3)
ADJ 237 Advanced Criminal Investigation (3)
ADJ 280 Capstone Project (1)
ADJ 299 Supervised Study in ADJ (1)
ITE 115 Intro. to Computer Applications & Concepts (3)
SDV 101 Introduction to Administration of Justice (1)
SDV 108 College Survival Skills (1)
Wellness PED EEE (3) *See page 161-163*
Electives (3 Credits). *See page 161-163*

Minimum required for degree: 67 Credits

Justice Studies

Award: Career Studies Certificate
Length: 19 credits

Purpose: This program is designed to provide fundamental skills of the criminal justice profession in local, state, and federal criminal justice systems.

ADJ 100 Survey of Criminal Justice (3)
ADJ 105 The Juvenile Justice System (3)
ADJ 111 Law Enforcement Organization & Administration I (3)
ADJ 146 Adult Correctional Institutions (3)
[or ADJ 140 Introduction to Corrections (3)]
[or ADJ 145 Corrections and the Community (3)]
ADJ 201 Criminology (3)
ADJ 228 Narcotics and Dangerous Drugs (3)
SDV 108 College Survival Skills (1)

Student must complete the above 19 credits to be awarded the Career Studies Certificate in Justice Studies.

Advising Sheet Suggested Schedules: Courses in advising sheets are displayed under the semester in which the courses are regularly offered. It is possible that a course shown on the schedule for a particular semester may not be offered due to low enrollment or other factors.

Advising Sheet for AAS: Administration of Justice 2016-17

Developmental English Pre-requisites met: _____yes _____no			
Required	ENF1	ENF2	ENF3
Met			

Developmental Math Pre-requisites met: _____yes _____no			
Required	MOD1	MOD2	MOD3
Met			

Note: Classes that are shaded meet the requirements of the Career Studies Certificate in Justice Studies.

Fall Semester Courses:			**Completed**
ADJ.100	Survey of Criminal Justice	3.0	_____
ADJ.111	Law Enforcement Organization & Admin I	3.0	_____
ENG.111	College Composition I	3.0	_____
ITE.115	Introduction to Computer Applications and Concepts	3.0	_____
CST.110	Introduction to Speech Communication	3.0	_____
SDV.101	Orientation To	1.0	_____
SDV.108	College Survival Skills	1.0	_____
		Total 17	

Next Actions which follow or can be accomplished during the First Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester

Spring Semester Courses:			**Completed**
ADJ.105	Juvenile Justice System	3.0	_____
ADJ.201	Criminology	3.0	_____
ADJ.146	Adult Correctional Institutions	3.0	_____
ADJ.228	Narcotics and Dangerous Drugs	3.0	_____
ENG.112	College Composition II	3.0	_____
PSY.200	Principles of Psychology	3.0	_____
		Total 18	

Next Actions which follow or can be accomplished during the Second Semester
1.During Early Bird Registration, meet with academic advisor to enroll in next semester

Fall Semester Courses:			**Completed**
ADJ.130	Introduction To Criminal Law	3.0	_____
ADJ.131	Legal Evidence I	3.0	_____
MTH.120	Introduction to Mathematics	3.0	_____
PLS.211	U.S. Government I	3.0	_____
SOC.200	Principles of Sociology	3.0	_____
		Total 15	

Next Actions which follow or can be accomplished during the Third Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester
2. Apply for graduation.
3. Meet with program faculty to prepare resume, plan internships, and/or receive assistance with job search.

Spring Semester Courses:			**Completed**
ADJ.236	Principles of Criminal Investigation	3.0	_____
ADJ.237	Advanced Criminal Investigation	3.0	_____
ADJ.280	Capstone Project	1.0	_____
ADJ.299	Supervised Study	1.0	_____
PLS.212	U.S. Government II	3.0	_____
EEE.EEE	General Elective	3.0	_____
Wellness.EEE	Wellness Elective	3.0	_____
		Total 17	

Health Sciences and Public Safety

Emergency Medical Services

Major: Paramedic

Award: Associate Applied Science
Length: 69 credits

Emergency Medical Technician: Paramedic

Award: Career Studies Certificate
Length: 25 credits

Emergency Medical Technician: Intermediate

Award: Career Studies Certificate
Length: 22 credits

PROGRAM CONTENT COMPARISON			
	Paramedic (AAS)	**Paramedic (CSC)**	**Intermediate (CSC)**
CST 110 (3)	●		
ENG 111 (3)	●		
ITE 115 (3)	●		
PSY 230 (3)	●		
NAS 150 (4) or (BIO 231 or 232)	●	●	
EMS 111 (7)	●		
EMS 120 (1)	●		
EMS 151 (4)	●		●
EMS 153 (2)	●		●
EMS 155 (4)	●		●
EMS 157 (3)	●		●
EMS 159 (3)	●		●
EMS 170 (2)	●		●
EMS 172 (2)	●		●
EMS 173 (1)	●		●
EMS 201 (3)	●	●	
EMS 205 (4)	●	●	
EMS 207 (3)	●	●	
EMS 209 (4)	●	●	
EMS 211 (2)	●	●	
EMS 242 (1)	●	●	
EMS 243 (1)	●	●	
EMS 244 (1)	●	●	
EMS 245 (1)	●	●	
EMS 299 (1)	●		
EMS/HLT EEE (2)	●		
SDV 108 (1)	●	●	●

Emergency Medical Services

Major: Paramedic

Award: Associate Applied Science
Length: 69 credits

Purpose: This program is designed to provide knowledge and skills to prepare selected students to qualify as practitioners of emergency medical services in a variety of health service facilities.

Employment Objectives: Employment opportunities for the paramedic include pre-hospital EMS agencies, municipal fire departments, emergency departments in hospitals, nursing homes, physician's offices, clinics, industry, and home health agencies.

Potential Certification: After successful completion of the AAS degree students will be eligible for the National Registry of Emergency Medical Technicians Paramedic (NRP) Certification examination.

Program Learning Outcomes: Graduates of the program will:

- Demonstrate minimum proficiency in General Education Skills which are defined as oral communication, written communication, mathematical/problem solving, scientific reasoning, information literacy, and critical thinking.
- Demonstrate ability to apply knowledge and skill required to practice as a paramedic level provider.
- Demonstrates required clinical skill competencies to deliver appropriate client care.
- Administers medications within the scope of practice as a paramedic provider.
- Demonstrate acceptable workplace skills, attitudes, and behaviors.

Special Admission Requirements: The applicant must meet the following requirements for admission to the EMS Education program. Interested students should contact the EMS Program Director for academic advising.

1. Be accepted as a student to the college.

2. Graduation from high school or satisfactory completion of the GED. Verification of high school graduation or GED is required by Virginia OEMS for this level of certification. Submission of official transcripts or GED scores is mandatory for all applicants.

3. Completion of PHCC College Placement tests unless appropriate college level English or math courses have been successfully completed. If any developmental courses in English or math are needed as indicated by student's scores, these courses must be successfully completed before the student can enroll in EMS 151 – Introduction to Advanced Life Support. Failure to successfully complete pre-requisites for enrollment in EMS 151 will delay program progression in the EMS curriculum by one academic year.

4. A cumulative college grade point average of 2.0 or better in all related and general education requirements completed before admission into the EMS Education program is desired and will be given higher priority for admission into the program.

5. Students currently enrolled at the college, in addition to students holding current Virginia certification as either an Emergency Medical Technician, EMT-Enhanced, EMT-Intermediate or holding current National Registry EMT-Intermediate certification, will be given priority for admission into the program and may be considered for advanced placement after all other admission requirements are met.

6. Submit an EMS Program Application form along with required paperwork, i.e. high school transcripts, college transcripts, current EMS certification, etc. during the specified EMS Education program application period.

Admission Procedure: Applications to the program will be accepted during the specified EMS Education program application periods. After the application period has concluded all completed application files will be reviewed and considered. Qualified applicants enrolled at the college or holding current Virginia certification as an Emergency Medical, Virginia EMT-Enhanced, or holding current National Registry and/or Virginia EMT-Intermediate certification will be given first priority for admission. Incomplete files will not be considered.

A completed application file includes the following:

1. The completed EMS Program Application form.

2. Official transcripts of all high school work and all prior college work other than PHCC.

3. Results of the college placement test, if not from PHCC.

4. A copy of your Virginia EMS certification, if applicable.

Because the EMS Education program addresses the educational needs of students with a variety of experiences and prior education, a limited number of entering class positions may be designated for certified EMT-Intermediates who graduated from accredited programs or for prospective high school graduates who also have been enrolled at PHCC as part of an EMT approved program of dual enrollment. Interested high school sophomores should see their counselors in the spring of their sophomore year. Interested high school juniors should see their counselors in the fall of their junior year.

The typical physical demands of a paramedic include the following: full range of motion including handling and lifting patients and/or equipment, manual and finger dexterity and eye- hand coordination. The job generally requires standing, walking for extensive periods of time, and working in all type of environments. The paramedic should be able to lift and carry items weighing up to 50 pounds. The job settings may have stressful conditions and/or irregular hours. There is a potential for exposure to communicable diseases. After admission to the EMS Education program, the prospective student is provided with an EMS Physical Examination form that must be completed by a physician prior to enrolling in the clinical or field internship classes.

Upon admission, all students are required to undergo mandatory drug screening. Students must have a negative drug screen in order to begin the clinical or field internship classes.

Please note that any prospective EMS student with a criminal conviction needs to speak with the EMS Program Director prior to enrollment at PHCC. Certain convictions will prevent the person from being certified as an Emergency Medical Services Provider in

Virginia. Students must produce a satisfactory criminal background check to the standards of all clinical agencies used by the college for experiential learning prior to enrolling in the EMS program.

Readmission Requirements: Any student wishing to reenroll in the EMS Education program must have at least a 2.0 cumulative grade point average at PHCC to be considered. A student who wishes to re-enter the EMS Education program must follow the procedure outlined in the EMS Education Program Student Handbook. The student may be required to enroll in and satisfactorily complete specific courses before and/or after readmission. Additional data may be required. The EMS faculty will consider each student's application for readmission and the decision to readmit will be based on additional data, prior performance in the EMS Education program and space availability.

Students who fail an EMS course or withdraw for any reason from the EMS Education program may be readmitted to the program only once. All readmissions are at the discretion of the EMS faculty.

Advanced Placement: Currently certified Virginia EMT, EMT Enhanced or EMT-Intermediate providers may be eligible for advanced placement. (NREMT-Intermediate will be accepted).

Financial Requirements: In addition to the usual college tuition and fees, this program requires additional expenses.
Approximate costs include:

Drug Screening	$38 minimum
Criminal Background Check	$48 minimum
Books	$650
Uniforms	$100
Physical Examination	$100
AHA BCLS CPR certification	$145

Transfer of EMS Credit: Students seeking to transfer credit received from EMS courses at other institutions will be considered on an individual basis by the EMS faculty. The student may be asked to provide course descriptions, course syllabi, achievement scores and selected data from the course instructor in order to determine placement in the EMS program, subject to availability of space. Since there frequently are differences among EMS programs, students wishing to transfer should be aware that there might be an interruption in program progression.

Curriculum Requirements: In addition to formal lectures and laboratory exercises, selected experiences within driving distance of the college will be scheduled at day, evening and/or weekend times, depending on availability of facilities.

EMS students will be required to successfully pass cognitive and psychomotor examinations at various points in the curriculum in order to continue in the program. Students who are unsuccessful will be counseled and guided in a specified number of remediation efforts. Upon successful completion of remedial requirements and passing the appropriate examinations, students may continue in the program.

To remain in the program, a student must have a "C" or above in all required EMS courses. Additionally, a grade of "C" or above in all semesters of biology and psychology is required to meet degree requirements.

General Education Requirements (16 Credits):

CST	110	Introduction to Speech Communication (3)
ENG	111	College Composition I (3)
ITE	115	Intro. Computer Applications & Concepts (3)
PSY	230	Developmental Psychology (3)
NAS	150	Human Biology (4)
		[or BIO 231 Human Anatomy and Physiology I (4)]
		[or BIO 232 Human Anatomy and Physiology II (4)]

Program Requirements (53 Credits):

EMS	111	Emergency Medical Technician – Basic (7)
EMS	120	EMT-Basic Clinical (1)
EMS	151	Introduction to Advanced Life Support (4)
EMS	153	Basic ECG Recognition (2)
EMS	155	ALS Medical Care (4)
EMS	157	ALS Trauma Care (3)
EMS	159	ALS Special Populations (3)
EMS	170	ALS Internship I (2)
EMS	172	ALS Clinical Internship II (2)
EMS	173	ALS Field Internship II (1)
EMS	201	Professional Development (3)
EMS	205	Advanced Pathophysiology (4)
EMS	207	Advanced Patient Assessment (3)
EMS	209	Advanced Pharmacology (4)
EMS	211	Operations (2)
EMS	242	ALS Clinical Internship III (1)
EMS	243	ALS Field Internship III (1)
EMS	244	ALS Clinical Internship IV (1)
EMS	245	ALS Field Internship IV (1)
EMS	299	Supervised Study in Emergency Medical Services (1)
EMS/HLT		Electives (2)
SDV	108	College Survival Skills (1)

Minimum required for degree: 69 Credits

Emergency Medical Technician: Paramedic

Award: Career Studies Certificate
Length: 25 credits

Purpose: This program is designed to provide knowledge and skills to prepare selected students to qualify as practitioners of emergency medical services in a variety of health service facilities.

Employment Objectives: Employment opportunities for the Paramedic include pre-hospital EMS agencies, municipal fire departments, emergency departments in hospitals, nursing homes, physician's offices, clinics, industry, and home health agencies.

Potential Certification: After successful completion of the Paramedic Career Studies Certificate, students will be eligible for the National Registry of Emergency Medical Technicians Paramedic (NRP) Certification examination.

Program Learning Outcomes:

- Demonstrate ability to apply knowledge and skill required to practice as a Paramedic level provider.
- Demonstrates required clinical skill competencies to deliver appropriate client care.

Special Admission Requirements: The applicant must meet the following requirements for admission to the EMS Education program. Interested students should contact the EMS Program Director for academic advising.

1. Be accepted as a student to the college.
2. Graduation from high school or satisfactory completion of the GED. Verification of high school graduation or GED is required by Virginia OEMS for this level of certification. Submission of official transcripts or GED scores is mandatory for all applicants.
3. Completion of PHCC Admission Placement tests unless appropriate college level English or math courses have been successfully completed. If any developmental courses in English or math are needed as indicated by student's scores, these courses must be successfully completed before the student can enroll in EMS 151 – Introduction to Advanced Life Support. Failure to successfully complete pre-requisites for enrollment in EMS 151 will delay program progression in the EMS curriculum by one academic year.
4. A cumulative college grade point average of 2.0 or better in all related and general education requirements completed before admission into the EMS Education program is desired and will be given higher priority for admission into the program.
5. Students must be currently enrolled at the college and have completed requirements for graduation from the EMT Intermediate Career Studies Certificate Program or must possess either current Virginia or National Registry EMT Intermediate certification to be accepted into the program.
6. Submit an *EMS Program Application* form along with required paperwork, i.e. high school transcripts, college transcripts, current EMS certification, etc. during the specified EMS Education program application period.

The typical physical demands of a paramedic include: full range of motion including handling and lifting patients and/or equipment, manual and finger dexterity and eye-hand coordination. The job generally requires standing, walking for extensive periods of time, and working in all types of environments. The paramedic should be able to lift and carry items weighing up to 50 pounds. The job setting may have stressful conditions and/or irregular hours. There is a potential for exposure to communicable diseases. After admission to the EMS Education program, the prospective student is provided with an EMS Physical Examination form that must be completed by a physician prior to enrolling in the clinical or field internship classes.

Upon admission, all students are required to undergo mandatory drug screening. Students must have a negative drug screen in order to begin the clinical or field internship classes.

Please note that any prospective EMS student with a criminal conviction needs to speak with the EMS Program Director prior to enrollment at PHCC. Certain convictions will prevent the person from being certified as an Emergency Medical Services Provider in Virginia. Students must produce a satisfactory criminal background check to the standards of all clinical agencies used by the college for experiential learning prior to enrolling in the EMS program.

To remain in the program, a student must have a "C" or above in all courses.

Program Requirements (25 credits):

EMS	201	Professional Development (3)
EMS	205	Advanced Pathophysiology (4)
EMS	207	Advanced Patient Assessment (3)
EMS	209	Advanced Pharmacology (4)
EMS	211	Operations (2)
EMS	242	ALS Clinical Internship III (1)
EMS	243	ALS Field Internship III (1)
EMS	244	ALS Clinical Internship IV (1)
EMS	245	ALS Field Internship IV (1)
NAS	150	**Human Biology (4)
SDV	108	College Survival Skills (1)

** Student may substitute BIO 231 – Human Anatomy & Physiology I *or* BIO 232 – Human Anatomy & Physiology II

Minimum required for Career Studies Certificate: 25 Credits

Emergency Medical Technician: Intermediate

Award: Career Studies Certificate
Length: 22 credits

Purpose: This program is designed to provide knowledge and skills to prepare selected students to qualify as practitioners of emergency medical services in a variety of health service facilities.

Employment Objectives: Employment opportunities include pre-hospital EMS agencies, municipal fire departments, emergency departments in hospitals, nursing homes, physician's offices, clinics, industry, and home health agencies.

Potential Certification: After successful completion of the Intermediate Careers Studies Certificate, students will be eligible for the National Registry of Emergency Medical Technicians Intermediate (NREMT-I) Certification examination.

Program Learning Outcomes:

- Administers medications within the scope of practice as an Intermediate level provider.

Special Admission Requirements: The applicant must meet the following requirements for admission to the EMS Education program. Interested students should contact the EMS Program Director for academic advising.

1. Be accepted as a student to the college.
2. Graduation from high school or satisfactory completion of the GED. Verification of high school graduation or GED is required by Virginia OEMS for this level of certification. Submission of official transcripts or GED scores is mandatory for all applicants.
3. Completion of PHCC Admission Placement tests unless appropriate college level English or math courses have been successfully completed. If any developmental courses in English or math are needed as indicated by student's scores, these courses must be successfully completed before the student can enroll in EMS 151 – Introduction to Advanced Life Support. Failure to successfully complete pre-requisites for enrollment in EMS 151 will delay program progression in the EMS curriculum by one academic year.
4. A cumulative college grade point average of 2.0 or better in all related and general education requirements completed before admission into the EMS Education program is desired and will be given higher priority for admission into the program.
5. Students currently enrolled at the college, in addition to applicants holding current Virginia certification as either an Emergency Medical Technician, Advanced EMT or EMT Enhanced, will be given priority for admission into the program and may be considered for advanced placement after all other admission requirements are met.
6. Submit an *EMS Program Application* form along with required paperwork, i.e. high school transcripts, college transcripts, current EMS certification, etc. during the specified EMS Education program application period.

The typical physical demands of an EMT-Intermediate include the following: full range of motion including handling and lifting patients and/or equipment, manual and finger dexterity and eye-hand coordination. The job generally requires standing, walking for extensive periods of time, and working in all type of environments. The EMT-Intermediate should be able to lift and carry items weighing up to 50 pounds. The job settings may have stressful conditions and/or irregular hours. There is a potential for exposure to communicable diseases. After admission to the EMS Education program, the prospective student is provided with an EMS Physical Examination form that must be completed by a physician prior to enrolling in the clinical or field internship classes.

Upon admission, all students are required to undergo mandatory drug screening. Students must have a negative drug screen in order to begin the clinical or field internship classes.

Please note that any prospective EMS student with a criminal conviction needs to speak with the EMS Program Director prior to enrollment at PHCC. Certain convictions will prevent the person from being certified as an Emergency Medical Services Provider in Virginia. Students must produce a satisfactory criminal background check to the standards of all clinical agencies used by the college for experiential learning prior to enrolling in the EMS program.

To remain in the program, a student must have a "C" or above in all EMS courses.

Program Requirements (22 Credits):

EMS	151	Introduction to Advanced Life Support (4)
EMS	153	Basic ECG Recognition (2)
EMS	155	ALS Medical Care (4)
EMS	157	ALS Trauma Care (3)
EMS	159	ALS Special Populations (3)
EMS	170	ALS Internship I (2)
EMS	172	ALS Clinical Internship II (2)
EMS	173	ALS Field Internship II (1)
SDV	108	College Survival Skills (1)

Minimum Required for Career Studies Certificate: 22 Credits

Advising Sheet Suggested Schedules: Courses in advising sheets are displayed under the semester in which the courses are regularly offered. It is possible that a course shown on the schedule for a particular semester may not be offered due to low enrollment or other factors.

Advising Sheet for AAS: Emergency Medical Services: Paramedic 2016-17

Developmental English Pre-requisites met: _____yes _____no			
Required	ENF1	ENF2	ENF3
Met			

Developmental Math Pre-requisites met: _____yes _____no									
Required	MOD1	MOD2							
Met									

Note: Classes that are shaded meet the requirements of the Career Studies Certificate in Paramedic. Classes that are marked with (I) meet the requirements of the EMS-Intermediate Career Studies Certificate. SDV 108 is required for all degrees and Career Studies Certificates.

	Spring Semester Courses:			**Completed**
	EMS 111	Emergency Medical Technician Basic	7.0	_____
	EMS 120	Emergency Medical Technician-Basic Clinical	1.0	_____
	NAS 150	Human Biology	4.0	_____
I	SDV 108	College Survival Skills	1.0	_____
		Total	13	

Next Actions which follow or can be accomplished during the First Semester
1.During Early Bird Registration, meet with academic advisor to enroll in next semester

	Fall Semester Courses:			**Completed**
I	EMS 151	Introduction to Advanced Life Support	4.0	_____
I	EMS 153	Basic ECG Recognition	2.0	_____
I	EMS 157	ALS Trauma Care	3.0	_____
I	EMS 170	ALS Internship I	2.0	_____
	ENG 111	College Composition	3.0	_____
		Total	14	

Next Actions which follow or can be accomplished during the Second Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester

	Spring Semester Courses:			**Completed**
I	EMS 155	ALS – Medical Care	4.0	_____
I	EMS 159	ALS – Special Populations	3.0	_____
I	EMS 172	ALS Clinical Internship II	2.0	_____
I	EMS 173	ALS Field Internship II	1.0	_____
	CST 110	Introduction to Speech Communication	3.0	_____
		Total	13	

Next Actions which follow or can be accomplished during the Third Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester

Fall Semester Courses:			**Completed**
EMS 201	EMS Professional Development	3.0	_____
EMS 205	Advanced Pathophysiology	4.0	_____
EMS 207	Advanced Patient Assessment	3.0	_____
EMS 242	ALS Clinical Internship III	1.0	_____
EMS 243	ALS Field Internship III	1.0	_____
PSY 230	Developmental Psychology	3.0	_____
	Total	15	

Next Action which follow or can be accomplished during the Fourth Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester
2. Apply for degree graduation.
3. Meet with Experiential Learning Coordinator to prepare resume, and/or receive assistance with job search.

Spring Semester Courses:			**Completed**
EMS 209	Advanced Pharmacology	4.0	_____
EMS 211	Operations	2.0	_____
EMS 244	ALS Clinical Internship IV	1.0	_____
EMS 245	ALS Field Internship IV	1.0	_____
EMS 299	Supervised Study in Emergency Medical Services	1.0	_____
EMS/HLT EEE	EMS or HLT Electives	2.0	_____
ITE 115	Introduction to Computer Applications and Concepts	3.0	
	Total	14	

Health Sciences and Public Safety

General Studies

Specialization: Criminal Justice

Award: Associate of Arts and Science
Length: 62-63 credits

Purpose: The curriculum is designed for the student who plans to complete a baccalaureate degree program in criminal justice. The intended transfer institution's catalog and transfer guide are the best sources of information for planning a course of study. Final responsibility for transferability of courses rests with the student and the registrar of that institution. Contact the division dean or an advisor for additional information.

Program Learning Outcomes: A student will be able to:
- Demonstrate proficiency in oral communication;
- Demonstrate effective written communication skills;
- Demonstrate proficiency in mathematical skills to solve problems;
- Demonstrate proficiency in scientific reasoning;
- Demonstrate proficiency in information literacy;
- Demonstrate the ability to reason critically and apply logic to solve problems; and
- Demonstrate competency of the effects of crime, law, and law enforcement systems in society.

General Education Requirements (18 Credits):

CST	110	Introduction to Communication (3)
ENG	111-112	College Composition I-II (6)
HIS	121-122	United States History I-II (6)
		[or HIS 101-102 History of Western Civilization I-II (6)]
MTH	163	Precalculus (3)

Program Requirements (44 Credits):
NOTE: To select courses, student should consult the catalog of the institution(s) to which transfer is anticipated in addition to these requirements:

ITE	119	Information Literacy (3)
SDV	108	College Survival Skills (1)
SDV	199	Supervised Study in Transfer Programs (1)
Wellness		(PED/HLT EEE) (2) *See page 161-163*

Transfer Laboratory Science (8 Credits). *See page 161-163*

Social Science Elective (3 Credits). *See page 161-163*

Foreign Language (8 Credits): Select from:

SPA	101-102	Beginning Spanish I-II (4)(4)
FRE	101-102	Beginning French I-II (4)(4)

Humanities (3 Credits):

REL	231	Religions of the World I (3)

Humanities Elective (3 Credits). *See page 161-163*

English Literature Elective (3 Credits). *See page 161-163*

Criminal Justice Electives (9 Credits) Select three courses:

ADJ	100	Survey of Criminal Justice (3)
ADJ	105	The Juvenile Justice System (3)
ADJ	145	Corrections and the Community (3)
ADJ	146	Adult Correctional Institutions (3)

Minimum required for degree: 62 Credits

Advising Sheet Suggested Schedules: Courses in advising sheets are displayed under the semester in which the courses are regularly offered. It is possible that a course shown on the schedule for a particular semester may not be offered due to low enrollment or other factors.

Advising Sheet for AA&S: Specialization: Criminal Justice 2016-17

Developmental English Pre-requisites met: _____yes _____no			
Required	ENF1	ENF2	ENF3
Met			

Developmental Math Pre-requisites met: _____yes _____no									
Required	MOD1	MOD2	MOD3	MOD4	MOD5	MOD6			
Met									

Fall Semester Courses:		**Completed**
ENG.111	College Composition I	3.0 _____
HIS.121	United States History I	3.0 _____
Criminal Justice.EEE	Criminal Justice Elective	3.0 _____
Science.EEE	Science Elective	4.0 _____
Wellness.EEE	Wellness Elective	2.0 _____
SDV.108	College Survival Skills	1.0 _____
	Total	16

Next Actions which follow or can be accomplished during the First Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester

Spring Semester Courses:		**Completed**
ENG.112	College Composition II	3.0 _____
HIS.122	United States History II	3.0 _____
CST.110	Introduction to Speech Communication	3.0 _____
SOC.EEE	Social Science Elective	3.0 _____
Science.EEE	Science Electives	4.0 _____
	Total	16

Next Actions which follow or can be accomplished during the Second Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester

Fall Semester Courses:		**Completed**
ITE.119	Information Literacy	3.0 _____
REL.231	Religions of the World I	3.0 _____
ADJ.EEE	Criminal Justice Elective	3.0 _____
Foreign.Language.EEE	Foreign Language Elective	4.0 _____
MTH.163	Precalculus	4.0 _____
	Total	17

Next Actions which follow or can be accomplished during the Third Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester
2. Apply for graduation.

Spring Semester Courses:		**Completed**
SDV.199	Supervised Study In	1.0 _____
Foreign.Language.EEE	Foreign Language Elective	4.0 _____
HUM.EEE	Humanities Elective	3.0 _____
ADJ.EEE	Criminal Justice Elective	3.0 _____
ENG.EEE	English Elective	3.0 _____
	Total	14

Health Sciences and Public Safety

Health Technology: Nursing

Award: Associate of Applied Science
Length: 69 credits

Purpose: The nursing major prepares selected students to qualify as practitioners of technical nursing in a variety of health service facilities.

Employment Objectives: Students who complete this program and subsequently obtain licensure as a Registered Nurse may be employed in the following settings: hospitals, clinics, residential nursing care facilities, rehabilitation centers, community and public health settings, industry, schools, home care agencies, outpatient facilities, physician offices, and correctional facilities, and with the military.

Potential Certification: After successful completion of the program, student will be eligible to apply to take the National Council Licensure Examination- Registered Nurse (NCLEX-RN) in the Commonwealth of Virginia.

Program Learning Outcomes: Graduates of this program will:

- Demonstrate effective written communication skills.
- Effectively apply the principles of safe and effective care incorporating the foundational principles of nursing.
- Demonstrate minimum competency to practice nursing at entry-level.
- Apply principles of mathematical reasoning and scientific reasoning to assist in facilitating optimal client care.
- Demonstrate use of critical thinking skills while utilizing the nursing process to facilitate optimal client care.

Special Accreditation Status: The program is approved by the Virginia Board of Nursing and accredited by the Accreditation Commission for Education in Nursing (ACEN).

First-time NCLEX-RN Pass Rates for PHCC, State and National last 5 years:

	PHCC	State	National
2015	88.46%	87.01%	84.53%
2014	78.05%	82.9%	81.78%
2013	84.38%	83.06%	83.04%
2012	92.11%	90.43%	90.34%
2011	86.96%	89.5%	89.32%

Admission Procedure: Applications to the nursing program are processed twice a year during specified advertised application periods. (The implementation of the new VCCS nursing curriculum may alter the nursing application cycles.) At the end of the advertised application period, completed applications with required supporting documents, will be reviewed and considered. Admission testing will be offered to students meeting admission requirements. Students who meet criteria, meaning score within the state regulation (45th percentile ranking) will be given priority.

NOTE: When admission must be limited because the number of qualified applicants exceeds available space, admission to the program will be given to applicants who scored at or above the 45th percentile ranking, and are also residents of the college service area. If seats are still available applicants who scored at or above the 45th percentile ranking, who live outside of the college service area will be offered admission starting with the higher percentile ranking, until all seats are filled. Applicants who are not accepted will be eligible to reapply at the next application period, at which time applicants meeting admission requirements will be allowed to repeat the admission test, and the most recent scores will be used for admission consideration.

Applicants are responsible for making certain that all application materials are on file in the nursing department. The materials needed are:
1. The completed nursing application.
2. Official transcripts of all secondary school work and all prior college work from colleges other than PHCC.

Admission Requirements: The applicant must meet the following requirements for admission to the required nursing clinical courses (NUR 111, 115, 118, 221, 222, 247, 254). Interested students should contact the nursing office for academic advising.

1. Be accepted as a student to the college.

2. Graduation from high school or satisfactory completion of the GED.

3. Complete the college placement test. If scores indicate, the applicant will be required to successfully complete developmental courses before submitting a nursing application.

4. Complete one unit of algebra (if college placement scores indicate content was not retained the course(s) will have to be repeated to included modules 1-6). Students are also required to have two units of high school college prep level science which includes Biology and Chemistry, with no grade below a "C." Deficiencies can be made up through approved developmental or college level courses. Deficiencies must be completed before submitting an application.

5. A cumulative college grade point average of 2.5 or higher in all related and general education requirements completed before admission into the nursing program courses.

6. After meeting the above criteria, submit an Application for the Associate Degree Nursing program, during the specified advertised application period, along with required paperwork, i.e. high school transcripts, college transcripts, etc. during the application period.

7. Pre-RN Admission Examination: The Health Education Systems, Inc. (HESI) test or equivalent is the final step in the admission process. Once you have met the above educational criteria and your application file has been approved, you will be scheduled for this test. Applicants must have satisfactory scores in reading, vocabulary, chemistry and mathematics (45th percentile ranking).

Because the nursing program addresses the educational needs of students with a variety of experiences and prior education, a limited number of entering class positions may be designated for experienced Licensed Practical Nurses who graduated from accredited programs or for prospective high school graduates who also have been enrolled at PHCC as part of a nursing department approved program of dual enrollment. Interested high school

sophomores should see their counselors in the spring of their sophomore year. Interested high school juniors should see their counselors in the fall of their junior year. All dually enrolled students interested in the PHCC nursing program must have their program of study approved in writing by the PHCC nursing program head.

The typical physical demands of a registered nurse include the following: full range of motion including handling and lifting patients and/or equipment, manual and finger dexterity and eye-hand coordination. The job generally requires standing and walking for extensive periods of time. The registered nurse should be able to lift and carry items weighing up to 50 pounds. The job settings may have stressful conditions and/or irregular hours. There is a potential for exposure to communicable diseases. After admission to the clinical phase, the prospective student is provided with a Nursing Program Physical Examination form that must be completed by a physician prior to enrolling in nursing classes. Upon admission, all students are required to undergo mandatory drug screening and a criminal background check. Students must have a negative drug screen in order to begin clinical nursing courses.

Please note that the Virginia State Board of Nursing may refuse to admit a candidate to any examination and refuse to issue a license or certificate to any applicant who has been convicted of any felony or any misdemeanor involving moral turpitude. Students must produce a satisfactory criminal background check to the standards of all clinical agencies used by the college for experiential learning upon enrolling in the Associate Degree Nursing program. Any charges or costs to secure the evaluation will be the responsibility of the student.

The Accreditation Commission for Education in Nursing is a resource for information regarding the required tuition, fees and length of nursing programs. They can be contacted at:

Accreditation Commission for Education in Nursing
3343 Peachtree Road NE, Suite 850
Atlanta, Georgia 30326
1-404-975-5000

Readmission Requirements: Any student wishing to re-enroll in the nursing clinical courses must have at least a 2.5 cumulative grade point average at PHCC to be considered. A student who wishes to re-enter the nursing curriculum must follow the procedure outlined in the Nursing Student Handbook. The student may be required to enroll in and satisfactorily complete specific courses before readmission. Additional data may be required. The nursing faculty will consider each student's application for readmission and the decision to readmit will be based on additional data, prior performance in the nursing program and space availability. Students who fail a nursing course or withdraw for any reason from the Nursing Program may be readmitted to the nursing program only once. All re-admissions are at the discretion of nursing faculty.

Advanced Placement: Licensed Practical Nurses that meet the admission requirements may be eligible for advanced placement. To be considered for advanced placement, an LPN must have:

1. Graduated from an approved practical nursing school;

2. Passed the LPN licensing exam and hold a current unencumbered Virginia license.

LPN's receiving advanced placement will be required to take NUR 115, LPN Transition, (2 credits). Please contact the nursing office for additional information.

Financial Requirements: In addition to the usual college tuition and fees, this program requires additional expenses. Approximate costs include:

Uniforms	$230
Physical Examination	$100
Books	$800-$1400
Kaplan/NCLEX Review	$540
Graduation Pin - cost depends on price of gold or silver	
AHA BCLS CPR certification	$145
Drug Screen	$38 minimum
Criminal Background Checks	$48 minimum
Application for Licensure fees	$390
Transportation to clinical agencies, seminars, etc. as required	

Transfer of Nursing Credit: Students seeking to transfer credit received from nursing courses at other institutions will be considered on an individual basis by the nursing faculty. The student may be asked to provide course descriptions, course syllabi, standardized test scores, and selected data from the course instructor in order to determine placement in the nursing program, subject to availability of space. Since there frequently are differences among nursing programs, students wishing to transfer should be aware that there might be an interruption in program progression.

Curriculum Requirements: In addition to formal lectures and laboratory exercises, selected experiences within driving distance of the college will be scheduled at day, evening and/or weekend times, depending on availability of facilities. Field trips, at an additional cost, may be included.

Clinical nursing students required to complete end of the semester testing. The results of the end of semester testing will be counted as a percentage of the final course grade. Students must pass the clinical nursing courses to continue in the program. Grading guidelines are specifically addressed in the course syllabi, and Nursing Student Handbook issued upon program admission.

The student must complete all general education and related courses either before or concurrent with nursing program requirements. To remain in the program, a student must have a "C" or above in all nursing courses. Additionally, a grade of "C" or above in all semesters of biology, social sciences, health courses , and SDV 101 is required to continue in the nursing program.

General Education Requirements (18 Credits):

CST	110	Introduction to Communication (3)
ENG	111-112	College Composition I-II (6)
HLT	230	Principles of Nutrition and Human Development (3)
SOC	200	Principles of Sociology (3)
	[or PSY 200	Principles of Psychology (3)]
PSY	230	Developmental Psychology (3)

Program Requirements (51 Credits):

BIO	231-232	Human Anatomy and Physiology I-II (8)
NUR	111	Nursing I (7)
NUR	118	Fist Level Nursing II (8)
NUR	135	Drug Dosage Calculations (2)
NUR	247	Psychiatric/Mental Health Nursing (3)
NUR	221-222	Second Level Nursing Principles & Concepts I-II (19)
NUR	254	Dimensions of Professional Nursing (2)
SDV	101*	Orientation to Careers (1)
SDV	108	College Survival Skills (1)

*Co-requisite with NUR 111

Minimum requirement for degree: 69 Credits

Advising Sheet Suggested Schedules: Courses in advising sheets are displayed under the semester in which the courses are regularly offered. It is possible that a course shown on the schedule for a particular semester may not be offered due to low enrollment or other factors.

Advising Sheet for AAS: Health Technology: Nursing 2016-17

Developmental English Pre-requisites met: _____yes _____no			
Required	ENF1	ENF2	ENF3
Met			

Developmental Math Pre-requisites met: _____yes _____no						
Required	MOD1	MOD2	MOD3	MOD4	MOD5	MOD6
Met						

Program Prerequisites before applying to the program:			
High School BIO	[**OR** BIO.101]	[**OR** BIO.102]	[**OR** NAS.150]
AND High School CHM	[**OR** CHM.110]		
AND GPA of 2.5+			

Fall Semester Courses:			**Completed**
NUR.111	Nursing I	7.0	_____
NUR.135	Drug Dosage Calculations	2.0	_____
SDV.101	Orientation To	1.0	_____
BIO.231	Human Anatomy and Physiology I	4.0	_____
PSY.230	Developmental Psychology	3.0	_____
SDV.108	College Survival Skills	1.0	
		Total 18	

Next Actions which follow or can be accomplished during the First Semester

1. During Early Bird Registration, meet with academic advisor to enroll in next semester

Spring Semester Courses:			**Completed**
NUR.118	First Level Nursing II	8.0	_____
NUR.247	Psychiatric/Mental Health Nursing	3.0	_____
BIO.232	Human Anatomy and Physiology II	4.0	_____
ENG.111	College Composition I	3.0	_____
		Total 18	

Next Actions which follow or can be accomplished during the Second Semester

1. During Early Bird Registration, meet with academic advisor to enroll in next semester

Fall Semester Courses:			**Completed**
ENG.112	College Composition II	3.0	_____
HLT.230	Principles of Nutrition and Human Development	3.0	_____
NUR.221	Second Level Nursing Principles and Concepts	9.0	_____
CST.110	Introduction to Speech Communication	3.0	_____
		Total 18	

Next Actions which follow or can be accomplished during the Third Semester

1. During Early Bird Registration, meet with academic advisor to enroll in next semester
2. Apply for graduation.

Spring Semester Courses:			**Completed**
SOC.200	Principles of Sociology	3.0	_____
NUR.222	Second Level Nursing Principles and Concepts II	10.0	_____
NUR.254	Dimensions of Professional Nursing	2.0	_____
		Total 15	

Health Sciences and Public Safety

Science

Specialization: Medical Science

Award: Associate Arts and Science
Length: 64 credits

Purpose: This curriculum is designed for the student who plans to apply to medical school, dental school, veterinary school or other science related field. The transfer institution's catalog and transfer guide are the best sources of information for planning a course of study. Final responsibility for transferability of courses rests with the student and the registrar of that institution.

Program Learning Outcomes: A student will be able to:

- Demonstrate effective verbal and written communication skills.
- Apply mathematical and scientific reasoning skills to formulate and solve problems.
- Demonstrate proficiency in personal computer operations and applications.
- Demonstrate proficiency in information literacy.
- Demonstrate ability to reason critically and problem-solve.
- Demonstrate proficiency in oral communication methods.
- Demonstrate accepted ethical behaviors and interpersonal skills that reflect an understanding of diversity and teamwork.
- Use laboratory equipment in a safe and proficient manner.
- Demonstrate the ability to compose a formal scientific report.
- Demonstrate the ability to use scientific tools for processing, evaluation, and presentation.
- Demonstrate competency in identifying human organs and listing the specific functions of organs that make up organ systems.

General Education Requirements (17 Credits):

CST 110 Introduction to Communication (3)
ENG 111–112 College Composition I-II (6)
MTH 166 Precalculus with Trigonometry (4) or higher –
Choose two math courses from electives (8) *See page 161-163*

Program Requirements (44 Credits):

NOTE: To select courses, student should consult the catalog of the institution(s) to which transfer is anticipated in addition to these degree requirements.

ITE 119 Information Literacy (3)
SDV 108 College Survival Skills (1)
SDV 199 Supervised Study in Transfer Programs (1)

Transfer Laboratory Science (16 Credits)

BIO 101-102 General Biology I-II (8)
BIO 231-232 Human Anatomy and Physiology I-II (8)

Social Science (9 Credits)

PSY 200 Principles of Psychology (3)
SOC EEE Social Science Elective (6). *See page 161-163*

College Transfer Electives (14 Credits)

BIO 151 Human Gross Anatomy I (1)
BIO 152 Human Gross Anatomy II (1)
CHM 111 College Chemistry I (4)
CHM 241 Organic Chemistry (4)
PHY 241 University Physics I (4)

Fine Arts Electives (3 Credits). *See page 161-163*
Minimum required for degree: 64 Credits

Advising Sheet Suggested Schedules: Courses in advising sheets are displayed under the semester in which the courses are regularly offered. It is possible that a course shown on the schedule for a particular semester may not be offered due to low enrollment or other factors.

Advising Sheet for AA&S: Science: Medical Science Specialization 2016-17

Developmental English Pre-requisites met: _____yes _____no			
Required	ENF1	ENF2	ENF3
Met			

Developmental Math Pre-requisites met: _____yes _____no									
Required	MOD1	MOD2	MOD3	MOD4	MOD5	MOD6	MOD7	MOD8	MOD9
Met									

Fall Semester Courses:			**Completed**
ENG.111	College Composition I	3.0	_____
MTH.166	Precalculus with Trigonometry	4.0	_____
SDV.108	College Survival Skills	1.0	_____
BIO.101	General Biology I	4.0	_____
CHM.111	College Chemistry I	4.0	_____
		Total 16	

Next Actions which follow or can be accomplished during the First Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester

Spring Semester Courses:			**Completed**
ENG.112	College Composition II	3.0	_____
MTH.2EE	Math 200+ Elective	4.0	_____
BIO.102	General Biology II	4.0	_____
ART.EEE	Arts Elective	3.0	_____
CHM.241	Organic Chemistry I	3.0	_____
		Total 17	

Next Actions which follow or can be accomplished during the Second Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester

Fall Semester Courses:			**Completed**
ITE.119	Information Literacy	3.0	_____
BIO.231	Human Anatomy and Physiology I	4.0	_____
PSY.200	Principles of Psychology	3.0	_____
BIO.151	Human Gross Anatomy I	1.0	_____
BIO.205	General Microbiology	4.0	_____
SOC.295	Medical Anthropology	2.0	_____
		Total 17	

Next Actions which follow or can be accomplished during the Third Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester

Spring Semester Courses:			**Completed**
SDV.199	Supervised Study In	1.0	_____
BIO.232	Human Anatomy and Physiology II	4.0	_____
SOC.207	Medical Sociology	3.0	_____
PHY.241	University Physics I	4.0	_____
BIO.152	Human Gross Anatomy II	1.0	_____
		Total 13	

Health Sciences and Public Safety

Science

Specialization: Pre-BSN

Award: Associate Arts and Science
Length: 61-62 credits

Purpose:

- To prepare Associate Degree Registered Nurse graduates to enter university B.S.N. bridge programs* (2+1+1 option).
- To provide a curriculum of study for eligible students (i.e. students with prior degrees, students who have dual enrolled) who are waiting to apply to the Associate Degree (1+2+1 option).
- To prepare transfer students to enter B.S.N programs (2+2 option).
- To assist Health Science Certificate completer's who are waiting to apply and be accepted to the Associate Degree.
- Nursing program and plan to continue their education at the B.S.N. level.

Program Learning Outcomes: A student will be able to:

- Demonstrate minimum proficiency in General Education Skills which are defined as oral communication, written communication, mathematical/problem solving, scientific reasoning, information literacy, and critical thinking.
- Identify all the major systems in the human body and list each major organ with its primary function.
- Distinguish between expected and unexpected outcomes when analyzing comprehensive physical assessment data.
- Demonstrate quantitative literacy by using and interpreting tables and graphs.

General Education Requirements (18-19 Credits):

CST 110 Introduction to Communication (3)
ENG 111-112 College Composition I-II (6)
HIS 121 United States History I (3)
[or HIS 122 US History II (3)]
[or HIS 101 History of Western Civilization I (3)]
[or HIS 102 History of Western Civilization II (3)]
MTH 166 Precalculus with Trigonometry (4)
[or MTH 151 Math for Liberal Arts I 3)]
[or MTH 152 Math for Liberal Arts II (3)]
MTH 157** Elementary Statistics (3)
[or MTH 241 Statistics I (3)]

Program Requirements (43 credits):

NOTE: To select courses, student should consult the catalog of the institution(s) to which transfer is anticipated in addition to these requirements:

SDV 108 College Survival Skills (1)
SDV 199 Supervised Study in Transfer Programs (1)
ITE 119 Information Literacy (3)

Laboratory Science (20 credits)

BIO 231/232 Human Anatomy & Physiology I & II (8)
BIO 205 General Microbiology (4
CHM 111/112 College Chemistry I & II (8)
[or BIO 101/102 General Biology I/II (8)]

Social Science (6 credits)

PSY 230 Developmental Psychology (3)
SOC 200 Principles to Sociology (3)
[or PSY 200 Principles of Psychology (3)]

Humanities/Fine Arts Elective (6 credits): Select from:

ART 101 Appreciation & History of Art I (3)
[or ART 201 History of Art I (3)]
ART 102 Appreciation & History of Art II (3)
[or ART 202History of Art II (3)]
ENG 241 Survey of American Literature I (3)
[or ENG 242 Survey of American Literature II (3)]
[or ENG 243 Survey of English Literature I (3)]
[or ENG 244 Survey of English Literature II (3)]
[or ENG 251 Survey of World Literature I (3)]
[or ENG 252 Survey of World Literature II (3)]
MUS 121 Music Appreciation I (3)
REL 200 Survey of the Old Testament (3)
REL 210 Survey of the New Testament (3)
REL 231 Religions of the World I (3)
[or REL 232 Religions of the World II (3)]
PHI 220 Ethics (3)

Pre-BSN Electives (6 credits):

NUR 230 Pharmacology (3)
NUR 226 Health Assessment (3)

Minimum required for degree: 61-62 Credits

Advising Sheet Suggested Schedules: Courses in advising sheets are displayed under the semester in which the courses are regularly offered. It is possible that a course shown on the schedule for a particular semester may not be offered due to low enrollment or other factors.

Advising Sheet for AA&S: Science Specialization: Pre-BSN 2016-17

Developmental English Pre-requisites met: _____yes _____no			
Required	ENF1	ENF2	ENF3
Met			

Developmental Math Pre-requisites met: _____yes _____no									
Required	MOD1	MOD2	MOD3	Mod4	Mod5	Mod6	Mod7	Mod8	Mod9
Met									

***Note:** Modules 1-9 required for MTH 166 or MTH 241. Modules 1-5 required for MTH 151, 152, or 157

Fall Semester Courses:		**Completed**
ENG.111	College Composition I	3.0 _____
HIS.121	United States History i	3.0 _____
ITE.119	Information Literacy	3.0 _____
BIO.101	General Biology i	4.0 _____
MTH.166	Precalculus with Trigonometry	4.0 _____
SDV.108	College Survival Skills	1.0 _____
		Total 18

Next Actions which follow or can be accomplished during the First Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester

Spring Semester Courses:		**Completed**
ENG.112	College Composition II	3.0 _____
CST.110	Introduction to Speech Communication	3.0 _____
BIO.102	General Biology II	4.0 _____
MTH.157	Elementary Statistics	3.0 _____
HUM.EEE	Humanities Elective	3.0 _____
		Total 16

Next Actions which follow or can be accomplished during the Second Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester

Fall Semester Courses:		**Completed**
BIO 205	General Microbiology	4.0 _____
NUR 226	Health Assessment	3.0 _____
BIO 231	Human Anatomy and Physiology I	4.0 _____
HUM.EEE	Humanities Elective	3.0 _____
		Total 14

Next Actions which follow or can be accomplished during the Third Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester
2.Meet with academic advisor or transfer advisor to discuss four-year transfer options.
3. Meet with Experiential Learning Coordinator to prepare resume, and/or receive assistance with job search.
4. Apply for degree graduation.

Spring Semester Courses:		**Completed**
PSY 230	Developmental Psychology	3.0 _____
SDV 199	Supervised Study In	1.0 _____
SOC. 200	Principles of Sociology	3.0 _____
NUR 230	Nursing Pharmacology	3.0 _____
BIO 232	Human Anatomy and Physiology II	4.0 _____
		Total 14

Health Sciences

Award: Certificate
Length: 36 credits

Purpose: This program will prepare graduates for entry into many health science programs of study. Public School students may complete this program through dual enrollment for entry into many post-secondary health science programs as a sophomore. The program is designed to serve both the needs of students interested in the associate degree nursing program at PHCC and those interested in allied health programs at other schools of choice. Students transferring to other schools are responsible for verifying transferability of PHCC courses.

Program Learning Outcomes: A student will be able to:

- Identify all the major systems in the human body and list each major organ with its primary functions.

Program Requirements (36 Credits):

CST	110	Introduction to Communication (3)
BIO	231-232	Human Anatomy and Physiology I-II (8)
ENG	111-112	College Composition I-II (6)
HLT	143	Medical Terminology I (3)
HLT	230	Principles of Nutrition & Human Development (3)
ITE	115	Intro. to Computer Applications & Concepts (3)
MTH	126	Mathematics for Allied Health (3)
PSY	230	Developmental Psychology (3)
SDV	108	College Survival Skills (1)
SOC	200	Principles of Sociology (3)

Minimum required for certificate: 36 credit

Advising Sheet Suggested Schedules: Courses in advising sheets are displayed under the semester in which the courses are regularly offered. It is possible that a course shown on the schedule for a particular semester may not be offered due to low enrollment or other factors.

Advising Sheet for Health Sciences Certificate 2016-17

Developmental English Pre-requisites met: _____yes _____no			
Required	ENF1	ENF2	ENF3
Met			

Developmental Math Pre-requisites met: _____yes _____no			
Required	MOD1	MOD2	MOD3
Met			

Fall Semester Courses:			**Completed**
ENG.111	College Composition I	3.0	_____
CST.110	Introduction to Speech Communication	3.0	_____
ITE.115	Introduction to Computer Applications and Concepts	3.0	_____
HLT.143	Medical Terminology	3.0	_____
SDV.108	College Survival Skills	1.0	_____
		Total 13	

Next Actions which follow or can be accomplished during the First Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester

Spring Semester Courses:			**Completed**
ENG.112	College Composition II	3.0	_____
BIO.231	Human Anatomy and Physiology I	4.0	_____
HLT.230	Principles of Nutrition	3.0	_____
PSY.230	Developmental Psychology	3.0	_____
		Total 13	

Next Actions which follow or can be accomplished during the Second Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester
2. Apply for Graduation
3. Meet with academic advisor of transfer advisor to discuss transfer options.

Fall Semester Courses:			**Completed**
BIO.232	Human Anatomy and Physiology II	4.0	_____
MTH.126	Mathematics for Allied Health	3.0	_____
SOC.200	Principles of Sociology	3.0	_____
		Total 10	

Health Sciences and Public Safety

Practical Nursing

Award: Certificate
Length: 48 credits

Purpose: This program is designed of this program is to prepare selected students to qualify as practitioner of practical nursing in a variety of health service facilities.

Employment Objectives: Employment opportunities in for the practical nurse include skilled and residential nursing care facilities, physician offices and clinics, industry, schools, home health care agencies, and others as applicable.

Potential Certification: After successful completion of the practical nursing program, graduates will be eligible to apply to take the National Council Licensure Examination-PN (NCLEX-PN). Passage of this examination will make the graduate eligible to be licensed as a Licensed Practical Nurse in the Commonwealth of Virginia.

Program Learning Outcomes: Graduates of the program will:

- Effectively apply the principles of safe and effective care incorporating the foundational principles of practical nursing
- Demonstrate minimum competency to practice practical nursing at entry level.

Special Accreditation/Approval Status: The practical nursing program is approved by the Virginia Board of Nursing.

Special Admission Requirements: The applicant must meet the following requirements for admission into the required clinical courses ((PNE 161, 141, 142, 163, 145, 164, and 158). Interested students should contact the nursing/allied health office for academic advising.

1. Be accepted as a student to the college.

2. Graduate from high school or a GED.

3. Complete the Compass test. If scores indicate, the applicant will be required to successfully complete developmental courses before submitting a practical nursing program application.

4. Validate computer competency equivalent to ITE 101.

5. Complete one unit of high school algebra with no grade below a 'C'. Deficiencies can be made up through approved developmental or college level courses. Deficiencies must be completed before application to the practical nursing program.

6. Complete one high school unit of college prep level science with no grade below a C. Course to be used for high school substitute class: BIO 101 or BIO 102.

7. Maintain cumulative college or high school grade point average of 2.5 or better.

8. After meeting the above criteria, submit an application for the Practical Nursing Program during the specified advertised application period, along with required paperwork, i.e. high school transcripts, college transcripts, etc. during the application period.

9. Achieve a passing score on the Admission Test.

10. Students will be scheduled for the admission test after their application file has been reviewed and approved. Applicants must have satisfactory scores in reading, mathematics, science, English and language usage.

Admission procedure: Applications to the nursing program are processed during specified advertised application periods. At the end of the advertised application period, completed applications with required supporting documents, will be reviewed and considered. Admission testing will be offered to students meeting all admission requirements.

Students who meet criteria, meaning score within the state regulation (45thpercentile ranking) will be given priority. NOTE: When admission must be limited because the number of qualified applicants exceeds available space, admission to the program will be given to applicants who scored at or above the 45th percentile ranking, and are also residents of the college service area. If seats are still available applicants who scored at or above the 45th percentile ranking, who live outside of the college service area will be offered admission starting with the higher percentile ranking, until all seats are filled.

Applicants who are not accepted will be eligible to reapply at the next application period, at which time applicants meeting admission requirements will be allowed to repeat the admission test, and the most recent scores will be used for admission consideration.

The typical physical demands of a licensed practical nurse include the following: full range of motion including handling and lifting patients and/or equipment, manual and finger dexterity and eye-hand coordination. The job generally requires standing and walking for extensive periods of time. The licensed practical nurse should be able to lift and carry items weighing up to 50 pounds. The job settings have stressful conditions and/or irregular hours. There is the potential for exposure to communicable diseases. After admission to the clinical courses, the prospective student is provided with a physical exam form that must be completed by a physician prior to enrolling in nursing classes.

Upon admission, students are required to undergo mandatory drug screening and a criminal background check. Students must have a negative drug screen in order to begin clinical courses. Any charges or costs associated with the criminal background check and drug screen will be the responsibility of the student.

Please note that the Virginia State Board of Nursing may refuse to admit a candidate to any licensure examination and refuse to issue a license or certificate to any applicant who has been convicted of any felony or misdemeanor involving moral turpitude. Students must produce a satisfactory criminal background check to the standards of all clinical agencies used

by the college for experiential learning upon enrolling in the Practical Nursing program.

Financial Requirements: In addition to the usual college tuition and fees, this program requires additional expenses.

Approximate costs include:

Uniforms	$230
Physical Examination	$100
Books	$400-$800
AHA BCLS CPR certification	$145
Standardized Tests	$150
Criminal Background Checks	$48 minimum
Drug Screens	$38 minimum
Application for Licensure fees	$370

Transportation to clinical agencies, seminars, etc. as required
Graduation Pin: cost depends on price of gold or silver

Curriculum Requirements: To remain in the program, a student must have a "C" or above in all PNE and NUR courses. Additionally, student must have a grade of "C" or above in all semesters of natural science and psychology courses. In addition to formal lectures and laboratory experiences, clinical experiences within driving distance of the college will be scheduled at day, evening and/or weekend times, depending on availability of facilities.

General Education Requirements: (11 credits)

ENG	111	College Composition I (3)
NAS	150	Human Biology (4)
PSY	230	Developmental Psychology (3)
HLT	141	Introduction to Medical Terminology (1)

Program Requirements (37 credits)

PNE	161	Nursing in Health Changes I (6)
PNE	141-142	Nursing Skills I-11 (4)
NUR	135	Drug Dosage Calculations (2)
PNE	163	Nursing in Health Changes III (8)
PNE	145	Trends in Practical Nursing (1)
PNE	164	Nursing in Health Changes IV (11)
PNE	173	Pharmacology for Practical Nurses (2)
PNE	158	Mental Health and Psychiatric Nursing (2)
SDV	108	College Survival Skills (1)

Minimum required for certificate: 48 Credits

Advising Sheet Suggested Schedules: Courses in advising sheets are displayed under the semester in which the courses are regularly offered. It is possible that a course shown on the schedule for a particular semester may not be offered due to low enrollment or other factors.

Advising Sheet for Certificate: Practical Nursing 2016-17

Developmental English Pre-requisites met: _____yes _____no			
Required	ENF1	ENF2	ENF3
Met			

Developmental Math Pre-requisites met: _____yes _____no									
Required	MOD1	MOD2	MOD3	MOD4	MOD5	MOD6			
Met									

Program Pre-requisites prior to applying to the Practical Nursing Program				
High School Bio	**OR** Bio 101	**OR** High School CHM	**OR** CHM 110	**OR** BIO 102
AND GPA of 2.5+				
AND ITE 101	**OR** ITE 115			

Fall Semester Courses:			**Completed**
PNE.161	Nursing in Health Changes I	6.0	_____
PNE.141	Nursing Skills I	2.0	_____
PNE.142	Nursing Skills II	2.0	_____
NAS.150	Human Biology	4.0	_____
NUR.135	Drug Dosage Calculations	2.0	_____
SDV.108	College Survival Skills	1.0	_____
HLT.141	Introduction to Medical Terminology	1.0	
		Total 18	

Next Actions which follow or can be accomplished during the First Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester

Spring Semester Courses:			**Completed**
PNE.163	Nursing in Health Changes III	8.0	_____
PNE.173	Pharmacology for Practical Nurses	2.0	_____
PSY.230	Developmental Psychology	3.0	_____
ENG.111	College Composition I	3.0	_____
		Total 16	

Next Actions which follow or can be accomplished during the Second Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester
2. Apply for certificate graduation.
3. Meet with the Experiential Learning Coordinator to prepare resume, and/or receive assistance with job search.

Fall Semester Courses:			**Completed**
PNE 164	Nursing in Health Changes IV	11.0	_____
PNE 158	Mental Health and Psychiatric Nursing	2.0	_____
PNE 145	Trends in Practical Nursing	1.0	_____
		Total 14	

Health Sciences and Public Safety

Therapeutic Massage

Award: Certificate
Length: 39 credits

Purpose: The program is designed to prepare students with the skills and competencies necessary to enter into the field of massage therapy.

Employment Objectives: Obtain employment as a massage therapist in a variety of settings such as health care, business, recreational settings, and self-employment. Businesses using massage therapists include hotels, cruise ships, hospitals, corporations, doctor's offices, and many spa or personal wellness agencies.

Potential Certification: A graduate may elect to apply to complete the state or national certification examination for massage therapy. After successful completion of the certification exam, the graduate may apply for licensure in Virginia as a Massage Therapist.

Program Learning Outcomes: A student will be able to:

- Demonstrate practical ability to deliver massage at the introductory level
- Demonstrate practical ability to deliver massages using specified techniques.

General Education Requirements (15)

ENG	111-112	College Composition I-II (6)
BUS	165	Small Business Management (3)
HLT	105	Cardiopulmonary Resuscitation (1)
PED	109	Yoga (1)
NAS	150	Human Biology (4)

Program Requirements (24)

HLT	170	Introduction to Massage (1)
HLT	180	Therapeutic Massage I (3)
HLT	280	Therapeutic Massage II (3)
HLT	281	Therapeutic Massage III (3)
PTH	151	Musculoskeletal Structure and Function (4)
HLT	220	Concepts of Disease (3)
HLT	143	Medical Terminology I (3)
HLT	116	Personal Wellness (3)
SDV	108	College Survival Skills (1)

Minimum required for certificate: 39 Credits

Advising Sheet Suggested Schedules: Courses in advising sheets are displayed under the semester in which the courses are regularly offered. It is possible that a course shown on the schedule for a particular semester may not be offered due to low enrollment or other factors.

Advising Sheet for Certificate Therapeutic Massage 2016-17

Developmental English Pre-requisites met: _____yes _____no			
Required	ENF1	ENF2	ENF3
Met			

Developmental Math Pre-requisites met: _____yes _____no		
Required	MOD1	MOD2
Met		

Fall Semester Courses:			**Completed**
ENG 111	College Composition I	3.0	_____
HLT 170	Introduction to Massage	1.0	_____
HLT 180	Therapeutic Massage	3.0	_____
NAS 150	Human Biology	4.0	_____
SDV.108	College Survival Skills	1.0	_____
		Total 12	

Next Actions which follow or can be accomplished during the First Semester
1.During Early Bird Registration, meet with academic advisor to enroll in next semester

Spring Semester Courses:			**Completed**
ENG 112	College Composition II	3.0	_____
HLT 143	Medical Terminology I	3.0	_____
HLT 280	Therapeutic Massage II	3.0	_____
PTH 151	Musculoskeletal Structure and Function	4.0	_____
PED 109	Yoga	1.0	_____
		Total 14	

Next Actions which follow or can be accomplished during the First Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester
2. Apply for certificate graduation.
3. Meet with Experiential Learning Coordinator to prepare resume, and or receive assistance with job search.

Summer Semester Courses:			**Completed**
HLT 116	Introduction to Personal Wellness Concepts	3.0	_____
BUS 165	Small Business Management	3.0	_____
HLT 105	Cardiopulmonary Resuscitation	1.0	_____
HLT 220	Concepts of Disease	3.0	_____
HLT 281	Therapeutic Massage III	3.0	_____
		Total 13	

Health Sciences and Public Safety

Nurse Aide Training

Award: Career Studies Certificate
Length: 16 credits

Purpose: This program is designed to prepare personnel to perform skilled duties to assist in basic care of patients.

Employment Objectives: Students who successfully complete the appropriate courses may be eligible for employment in hospitals, skilled/residential nursing facilities, home care, physician offices, or other health related facilities.

Potential Certification: Students who successfully complete the appropriate courses may apply to take the certification test for the Certified Nurse Aide in Virginia.

Program Learning Outcomes: A student will be able to:

- Demonstrate skillful delivery of patient care at the nurse aid level of preparation.

Curriculum Requirements: Students will be required to undergo mandatory drug screening and a criminal background check. Students must have a negative drug screen and criminal background check in order to be eligible for clinical experiences.

Financial Requirements: In addition to the usual college tuition and fees, this program requires additional expenses.

Approximate costs may include:

Drug Screening	$38	minimum
Criminal Background Check	$48	minimum
Uniform	$30/$50	
Watch	$10	
Physical Examination and TB Skin Test	$100	
Textbook/Workbook	$40	
Certification Examination	$100	

Transportation to clinical agencies as required

Program Requirements: (16 Credits)

HCT	101	Health Care Technician I (4)
HCT	102	Health Care Technician II (4)
HCT	110	Therapeutic Communication in the Health Care Setting (3)
HLT	100	First Aid and Cardiopulmonary Resuscitation (2)
ITE	101	Introduction to Microcomputers (2)
SDV	108	College Survival Skills (1)

Advising Sheet Suggested Schedules: Courses in advising sheets are displayed under the semester in which the courses are regularly offered. It is possible that a course shown on the schedule for a particular semester may not be offered due to low enrollment or other factors.

Advising Sheet for Career Studies Certificate Nurse Aide Training 2016-17

Developmental English Pre-requisites met: _____yes _____no			
Required	ENF1	ENF2	ENF3
Met			

Note: Students completing HCT courses require ENF1 or above, HLT courses require ENF 3 or above.

Fall Semester Courses:			**Completed**
HCT.101	Health Career Technician I	4.0	_____
HCT.102	Health Career Technician II	4.0	_____
HCT.110	Therapeutic Communication in the Health Care Setting	3.0	_____
HLT.100	First Aid and Cardiopulmonary Resuscitation	2.0	_____
ITE.101	Introduction to Microcomputers	2.0	_____
SDV.108	College Survival Skills	1.0	_____
		Total 16	

Health Sciences and Public Safety

Pharmacy Technician

Award: Career Studies Certificate
Length: 25 credits

Purpose: This program is designed to prepare personnel to perform skilled duties and to assist the pharmacists-in-charge. Job duties include: computer information entry, preparation of prescription labels, assisting the pharmacists in filling prescriptions, ordering pharmaceuticals and supplies, and customer assistance.

Employment Objectives: Obtain employment as a pharmacy technician**.**

Potential Certification: A graduate may elect to complete state or national certification as a pharmacy technician.

Program Learning Outcomes: A student will be able to:

- Demonstrates skillful performance of pharmacy technician duties.
- Demonstrates the ability to retrieve and utilize information required for competent practice in the pharmacy setting.

Curriculum Requirements: Students will be required to undergo mandatory drug screening and a criminal background check. Student must have a negative drug screen and criminal background check in order to begin pharmacy technician clinical experiences. Clinical experiences will be arranged

Financial Requirements: In addition to the usual college tuition and fees, this program requires additional expenses.

Approximate costs include:

Drug Screening	$38 minimum
Criminal Background Check	$48 minimum

Transportation to clinical agencies as required
It is highly recommended that students purchase a lab coat for clinical experiences.

Program Requirements: (25 Credits)

ITE	101	Introduction to Microcomputers (2)
HCT	110	Therapeutic Communication in Health Care Setting (3)
HLT	143	Medical Terminology (3)
HLT	250	General Pharmacology (3)
HLT	261	Basic Pharmacy I (3)
HLT	262	Basic Pharmacy II (3)
HLT	263	Basic Pharmacy I Lab (1)
HLT	264	Basic Pharmacy II Lab (1)
MTH	126	Math for Allied Health (3)
NUR	135	Drug Dosage Calculations (2)
SDV	108	College Survival Skills (1)

Advising Sheet Suggested Schedules: Courses in advising sheets are displayed under the semester in which the courses are regularly offered. It is possible that a course shown on the schedule for a particular semester may not be offered due to low enrollment or other factors.

Advising Sheet for Career Studies Certificate Pharmacy Technician 2016-17

Developmental English Pre-requisites met: _____yes _____no			
Required	ENF1	ENF2	ENF3
Met			

Developmental Math Pre-requisites met: _____yes _____no			
Required	MOD1	MOD2	MOD3
Met			

Fall Semester Courses:			**Completed**
ITE 101	Introduction to Microcomputers	2.0	_____
HLT 143	Medical Terminology	3.0	_____
HLT 261	Basic Pharmacy I	3.0	_____
MTH 126	Math for Allied Health	3.0	_____
SDV.108	College Survival Skills	1.0	_____
		Total 12	

Next Actions which follow or can be accomplished during the First Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester
2. Apply for career studies certificate graduation.
3. Meet with Experiential Learning Coordinator to prepare resume, and or receive assistance with job search.

Spring Semester Courses:			**Completed**
HCT 110	Therapeutic Communication	3.0	_____
HLT 262	Basic Pharmacy II	3.0	_____
HLT 263	Basic Pharmacy Lab I	1.0	_____
HLT 264	Basic Pharmacy Lab II	1.0	_____
NUR 135	Drug Dosage Calculations	2.0	_____
HLT 250	General Pharmacology	3.0	_____
		Total 13	

General Studies

Specialization: Information Technology

Award: Associate Arts and Science
Length: 61-62 credits

General Education Requirements (21 Credits):

CST 110 Introduction to Communication (3)
ENG 111-112 College Composition I-II (6)
HIS 121-122 United States History I-II (6)
[or HIS 101-102 History of Western Civilization I-II (6)]

Choose one of the following combinations to fulfill the Math requirement (choose based on the requirements of the transfer institution):

[a] MTH 166 Precalculus with Trigonometry (4)
and MTH 271 Applied Calculus I (3)
OR….
[b] MTH 151 Mathematics for the Liberal Arts I (3)
and MTH 152 Mathematics for the Liberal Arts II (3)
OR….
[c] MTH 166 Precalculus with Trigonometry (4)
and MTH 164 Precalculus II (3)

Program Requirements (40 Credits):

NOTE: To select courses, student should consult the catalog of the institution(s) to which transfer is anticipated in addition to these requirements:

SDV 108 College Survival Skills (1)
SDV 199 Supervised Study in Transfer Programs (1)
PED EEE Wellness (1) *See page 161-163*

Transfer Laboratory Science (8 Credits). *See page 161-163*

Social Science Electives (6 Credits). *See page 161-163*

Fine Arts Elective (3 credits). *See page 161-163*

Information Systems Requirements (14 credits):

Courses may be selected from the following:

CSC 200 Introduction to Computer Science (3)
CSC 201 Computer Science I (4)
CSC 202 Computer Science II (4)
CSC 205 Computer Organization (3)

(ITP 120 (4) and ITP 220 (4) can be substituted for CSC 201 and CSC 202)

College Transfer Electives (6 Credits). *See page 161-163*

Minimum required for degree: 61 Credits

Advising Sheet Suggested Schedules: Courses in advising sheets are displayed under the semester in which the courses are regularly offered. It is possible that a course shown on the schedule for a particular semester may not be offered due to low enrollment or other factors.

Advising Sheet for AA&S: Specialization: Information Technology 2016-17

Developmental English Pre-requisites met: _____yes _____no			
Required	ENF1	ENF2	ENF3
Met			

Developmental Math Pre-requisites met: _____yes _____no			
Required	MOD5		MOD9
Met			

Fall Semester Courses:			**Completed**
ENG.111	College Composition I	3.0	_____
MTH.1EE	Math 100+ Elective	3.0	_____
SDV.108	College Survival Skills	1.0	_____
CSC.200	Introduction to Computer Science	3.0	_____
CSC.201	Computer Science I	4.0	_____
PED.EEE	PE Elective	1.0	_____
		Total 15	

Next Actions which follow or can be accomplished during the First Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester
2. Discuss eligibility for certificate, career studies certificate or other certifications with your advisor.

Spring Semester Courses:			**Completed**
ENG.112	College Composition II	3.0	_____
CST.110	Introduction to Speech Communication	3.0	_____
MTH.1EE	Math 100+ Elective	3-4.0	_____
CSC.202	Computer Science II	4.0	_____
EEE.EEE	General Elective	3.0	_____
		Total 16-17	

Next Actions which follow or can be accomplished during the Second Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester
2. Discuss four-year transfer options with your advisor.

Fall Semester Courses:			**Completed**
HIS.121	United States History I	3.0	_____
SOC.EEE	Social Science Elective	3.0	_____
NAS.EEE	Natural Science Electives (3-4 credits)	4.0	_____
CSC.205	Computer Organization	3.0	_____
ART.EEE	Arts Elective	3.0	_____
		Total 16	

Next Actions which follow or can be accomplished during the Third Semester
1.During Early Bird Registration, meet with academic advisor to enroll in next semester
2.Discuss transfer plans with your advisor.
3. Apply for graduation.

Spring Semester Courses:			**Completed**
HIS.122	United States History II	3.0	_____
SOC.EEE	Social Science Elective	3.0	_____
SDV.199	Supervised Study In	1.0	_____
NAS.EEE	Natural Science Electives (3-4 credits)	4.0	_____
EEE.EEE	General Elective	3.0	_____
		Total 14	

Information Systems Technology

Award: Associate of Applied Science
Length: 65-68 credits

Computer Service Technician

Award: Career Studies Certificate
Length: 18 credits

Internet Service Webmaster

Award: Career Studies Certificate
Length: 18 credits

PROGRAM CONTENT COMPARISON			
	INFORMATION SYSTEMS TECHNOLOGY (AAS)	**COMPUTER SERVICE TECHNICIAN (CSC)**	**INTERNET WEB-MASTER (CSC)**
ENG 111 (3)	●		
ENG 112 (3)	●		
MTH 151 (3) or MTH 166 (4)	●		
Science Elective (NAS EEE (3-4)	●		
CST 110 (3)	●		
Social Science Elective (3)	●		
CSC 200 (3)	●	●	●
ITD 110 (3)	●		●
ITD 130 (3)	●		●
ITE 115 (3) or ITE 119 (3) or EGR 216 (3)	●	●	●
ITE 130 (3)	●		
ITE 140 (3)	●		
ITE 199 (1)	●	●	●
ITE 290 (3)	●		
ITE 299 (1)	●		
ITN 106 (3)	●	●	
ITN 107 (3)	●	●	
ITN 154 (4)	●	●	●
ITN 260 (3)	●		
ITP 110 (3) or CSC 201 or ITP 120 (4)	●		
ITE EEE (3-4)	●		
MKT 260 (3) or ACC 211 (3) or BUS 165 (3)	●		
SDV 108 (1)	●	●	●
Wellness (HLT/PED EEE) (1)	●		

Information Systems Technology

Award: Associate of Applied Science
Length: 65-68 credits

Purpose: Individuals who are seeking their first employment or those who wish to qualify for promotion in a present position or to another field, including self-employment, may benefit from this program. Students will learn to use a wide array of business-oriented computer software and choose specific courses to meet career goals. The program provides a base of general skills in information systems and gives the individual the option to specialize in a particular area or complete the degree with a more generalist tract. The program provides base skills in software applications, basic PC troubleshooting and repair, networking terminology, programming concepts, and Internet resources. Upon completion of the program, the student will be prepared for immediate employment.

Employment Objectives: Completion of this program may lead to employment or career advancement in any of a wide variety of positions such as PC support technician, software specialist, helpdesk technician, or PC advisor. Primary tasks and functions graduates will be able to perform include management of tasks, software operations, and basic problem solving.

Potential Certification: A student may elect to take a certification exam. The examinations generally require a testing fee paid by the student. After completion of this program, a student will be academically prepared to take the following examinations:

- Microsoft Office Specialist (MOS) – Excel.
- CompTIA - A+, Network+.
- Certiport, Inc. - IC3.

Curriculum Requirements: Students must successfully complete all of the general education and program requirements listed below to be awarded this degree.

Program Learning Outcomes: A student will be able to:

- Demonstrate minimum proficiency in General Education Skills which are defined as oral communication, written communication, mathematical/problem solving, scientific reasoning, information literacy, and critical thinking.
- Demonstrate proficiency with computer hardware, software, operating systems, and business applications.
- Demonstrate acceptable workplace skills, attitudes, and behaviors.

General Education Requirements (18-20 Credits):

CST 110 Introduction to Communication (3)
ENG 111-112 College Composition I-II (6)
MTH 151 Mathematics for the Liberal Arts I (3)
[or MTH 166 Precalculus with Trigonometry (4)]
Science Elective (3-4) *See page 161-163*
Social Science Elective (3) *See page 161-163*

Program Requirements (47-49 Credits):

CSC 200 Introduction to Computer Science (3)

ITD	110	Web Page Design I (3)
ITD	130	Database Fundamentals (3)
ITE	115	Intro to Computer Applications & Concepts (3)
		[or ITE 119 Information Literacy (3)]
		[or EGR 216 Computer Methods in Engineering (3)]
ITE	130	Introduction to Internet Services (3)
ITE	140	Spreadsheet Software (3)
ITE	199	Supervised Study – Certification Study (1)
ITE	290	Coordinated Internship (3)
		[or ITE 297 Cooperative Education (3)]
ITE	299	Supervised Study in IST (1)
ITN	106	Microcomputer Operating Systems (3)
ITN	107	Personal Computer Hardware & Troubleshooting (3)
ITN	154	Network Fundamentals, Router Basics, and Configuration (ICND1) – Cisco (4)
ITN	260	Network Security Basics (3)
ITP	110	Visual Basic Programming I (3)
		[or CSC 201 Computer Science I (4)]
		[or ITP 120 Java Programming I (4)]
Information Technology Elective (3-4)		*See page 161-163*
MKT	260	Customer Service Management (3)
		[or ACC 211 Principles of Accounting (3)]
		[or BUS 100 Introduction to Business (3)]
SDV	108	College Survival Skills (1)
Wellness		PED/HLT EEE (1) *See page 161-163*

Minimum required for degree: 65 - 68 Credits

Computer Service Technician

Award: Career Studies Certificate
Length: 18 credits

Purpose: This program is designed to provide skills and knowledge needed for employment as a computer service technician and certification for the CompTIA A+ exam.

Employment Objectives: Employment opportunities include repair and maintenance of computers and servers. Responsibilities may also include building or configuring new hardware, installing and updating software packages, and creating and maintaining computer networks.

Potential Certification: A student may elect to take an industry-specific certification exam. The examinations generally require a testing fee paid by the student. After completion of this program, a student will be academically prepared to take the following examinations:

• CompTIA – A+

Program Learning Outcomes: A student will be able to:

• Demonstrate skills in computer hardware knowledge related to installation, configuration, and upgrading, diagnosing and troubleshooting, preventive maintenance, printers, and basic networking.

• Demonstrate skills in computer operating system knowledge related to operating system fundamentals, installation, configuration, and upgrading, diagnosing and troubleshooting, and networks.

Program Requirements (18 Credits):

CSC	200	Introduction to Computer Science (3)
ITE	115	Intro. Computer Applications & Concepts (3)
ITE	199	Supervised Study-Certification Exam Preparation (1)
ITN	106	Microcomputer Operating Systems (3)
ITN	107	Personal Computer Hardware and Troubleshooting (3)
ITN	154	Network Fundamentals, Router Basics, and Configuration (ICND1) – Cisco (4)
SDV	108	College Survival Skills (1)

Minimum required for certificate: 18 Credits

Students must complete the above 18 credit hours to be awarded the Career Studies Certificate in Computer Service Technician.

Internet Service Webmaster

Award: Career Studies Certificate
Length: 18 credits

Purpose: This program is designed to provide skills and knowledge needed for employment as a webmaster and certification from CIW as a Certified Internet Webmaster Associate.

Employment Objectives: Employment opportunities include Web Developer, Web Designer, Webmaster, Web Site Manager, and Web Programmer.

Potential Certification: A student may elect to take an industry-specific certification exam. The examinations generally require a testing fee paid by the student. After completion of this program, a student will be academically prepared to take the following examination:

• CIW: Certified Internet Webmaster Associate.

Program Learning Outcomes: A student will be able to:

• Demonstrate basic knowledge of Internet fundamentals and technologies.

• Demonstrate web authoring fundamentals using HTML 5.

Program Requirements (18 Credits):

CSC	200	Introduction to Computer Science (3)
ITE	115	Intro. Computer Applications & Concepts (3)
ITE	130	Introduction to Internet Services (3)
ITE	199	Supervised Study-Certification Exam Preparation (1)
ITD	110	Web Page Design I (3)
ITN	154	Network Fundamentals, Router Basics, and Configuration (ICND1) – Cisco (4)
SDV	108	College Survival Skills (1)

Minimum required for certificate: 18 Credits

Advising Sheet Suggested Schedules: Courses in advising sheets are displayed under the semester in which the courses are regularly offered. It is possible that a course shown on the schedule for a particular semester may not be offered due to low enrollment or other factors.

Advising Sheet for AAS: Information Systems Technology 2016-17

Developmental English Pre-requisites met: _____yes _____no			
Required	ENF1	ENF2	ENF3
Met			

Developmental Math Pre-requisites met: _____yes _____no								
Required	MOD1	MOD2	MOD3	MOD4	MOD5	MOD6	MOD7	MOD8
Met								

Note: Classes that are shaded meet the requirements of the Computer Service Technician Career Studies Certificate.

Fall Semester Courses:			**Completed**
ENG.111	College Composition I	3.0	
CSC.200	Introduction to Computer Science	3.0	
ITD.110	Web Page Design I	3.0	_____
ITE.115	Introduction to Computer Applications and Concepts	3.0	
ITN.154	Network Fundamentals, Router Basics, and Configuration (ICND1) – Cisco (4)	4.0	
SDV.108	College Survival Skills	1.0	
		Total 17	

Next Actions which follow or can be accomplished during the First Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester

---

Spring Semester Courses:			**Completed**
ENG.112	College Composition II	3.0	
MTH.151	Mathematics for the Liberal Arts I	3.0	
ITE.130	Introduction to Internet Services	3.0	
ITN.106	Microcomputer Operating Systems	3.0	
ITN.107	Personal Computer Hardware & Troubleshooting	3.0	
ITE.199	Supervised Study – Certification Study	1.0	
		Total 16	

Next Actions which follow or can be accomplished during the Second Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester
2. Take industry exam – CompTIA A+, Certiport, Inc. IC3
3. Apply for career studies certificate

Fall Semester Courses:			**Completed**
CST.110	Introduction to Speech Communication	3.0	_____
ITE.140	Spreadsheet Software	3.0	
SOC.EEE	Social Science Elective	3.0	
ITE.EEE	Information Technology Elective	3.0	
NAS.EEE	Natural Science Electives	3.0	_____
PED/HLT.EEE	Wellness Elective	1.0	_____
		Total 16	

Next Actions which follow or can be accomplished during the Third Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester
2. Take industry exam – Microsoft Office Specialist (MOS) Excel
3. Meet with Experiential Learning Coordinator to prepare resume, plan internships, and/or receive assistance with job search.
4. Apply for degree graduation.

Spring Semester Courses:			**Completed**
ITD.130	Database Fundamentals	3.0	_____
ITN.260	Network Security Basics	3.0	_____
MKT.260	Customer Service Management	3.0	_____
ITP.110	Visual Basic Programming	3.0	
ITE.290	Coordinated Internship	3.0	_____
ITE.299	Supervised Study	1.0	_____
		Total 16	

Advising Sheet Suggested Schedules: Courses in advising sheets are displayed under the semester in which the courses are regularly offered. It is possible that a course shown on the schedule for a particular semester may not be offered due to low enrollment or other factors.

Advising Sheet for AAS: Information Systems Technology 2016-17

Developmental English Pre-requisites met: _____yes _____no			
Required	ENF1	ENF2	ENF3
Met			

Developmental Math Pre-requisites met: _____yes _____no								
Required	MOD1	MOD2	MOD3	MOD4	MOD5	MOD6	MOD7	MOD8
Met								

Note: Classes that are shaded meet the requirements of the Internet Webmaster Career Studies Certificate.

Fall Semester Courses:			**Completed**
ENG.111	College Composition I	3.0	
CSC.200	Introduction to Computer Science	3.0	
ITD.110	Web Page Design I	3.0	
ITE.115	Introduction to Computer Applications and Concepts	3.0	
ITN.154	Network Fundamentals, Router Basics, and Configuration (ICND1) – Cisco (4)	4.0	
SDV.108	College Survival Skills	1.0	
		Total 17	

Next Actions which follow or can be accomplished during the First Semester

1. During Early Bird Registration, meet with academic advisor to enroll in next semester

---

Spring Semester Courses:			**Completed**
ENG.112	College Composition II	3.0	
MTH.151	Mathematics for the Liberal Arts I	3.0	
ITE.130	Introduction to Internet Services	3.0	
ITN.106	Microcomputer Operating Systems	3.0	
ITN.107	Personal Computer Hardware & Troubleshooting	3.0	
ITE.199	Supervised Study – Certification Study	1.0	
		Total 16	

Next Actions which follow or can be accomplished during the Second Semester

1. During Early Bird Registration, meet with academic advisor to enroll in next semester
2. Take industry exam – CIW Associate
3. Apply for career studies certificate

Fall Semester Courses:			**Completed**
CST.110	Introduction to Speech Communication	3.0	_____
ITE.140	Spreadsheet Software	3.0	
ITP.110	Visual Basic Programming	3.0	_____
ITE.EEE	Information Technology Elective	3.0	
NAS.EEE	Natural Science Elective	3.0	_____
PED/HLT.EEE	Wellness Elective	1.0	_____
		Total 16	

Next Actions which follow or can be accomplished during the Third Semester

1. During Early Bird Registration, meet with academic advisor to enroll in next semester
2. Take industry exam – Microsoft Office Specialist (MOS) Excel
3. Meet with Experiential Learning Coordinator to prepare resume, plan internships, and/or receive assistance with job search.
4. Apply for degree graduation.

Spring Semester Courses:			**Completed**
ITD.130	Database Fundamentals	3.0	_____
ITN.260	Network Security Basics	3.0	_____
MKT.260	Customer Service Management	3.0	_____
SOC.EEE	Social Science Elective	3.0	_____
ITE.290	Coordinated Internship	3.0	_____
ITE.299	Supervised Study	1.0	_____
		Total 16	

Information Systems Technology

Specialization: Accounting Information Systems

Award: Associate of Applied Science
Length: 65-68 credits

Purpose: Individuals who are seeking their first employment or those who wish to qualify for promotion in a present position or to another field, including self-employment, may benefit from this program. Students will be provided with technical knowledge and skill in various areas of computerized accounting systems and related information technology topics. This program provides skills to analyze financial reports and solve problems to meet functional objectives of the business related to accounting systems. Upon completion of the program, the student will be prepared for immediate employment.

Employment Objectives: Completion of this program may lead to employment or career advancement in any of a wide variety of positions such as accounting systems technician, accounts receivable/accounts payable technician, payroll technician, and other positions related to information technology and accounting systems. Primary tasks and functions graduates will be able to perform include the ability to utilize accounting systems in the operation of a business, analyze financial reports, and maintain computerized accounting systems.

Potential Certification: A student may elect to take a certification exam. The examinations generally require a testing fee paid by the student. After completion of this program, a student will be academically prepared to take the following examinations:

- Microsoft Office Specialist (MOS) – Excel, Access.
- Quickbooks.
- Certiport, Inc. - IC3.

Curriculum Requirements: Students must successfully complete all of the general education and program requirements listed below to be awarded this degree.

Program Learning Outcomes: A student will be able to:

- Demonstrate minimum proficiency in General Education Skills which are defined as oral communication, written communication, mathematical/problem solving, scientific reasoning, information literacy, and critical thinking.
- Demonstrate proficiency with computer hardware, software, operating systems, and business applications.
- Demonstrate acceptable workplace skills, attitudes, and behaviors.
- Demonstrate the ability to utilize accounting systems in the operation of a business, analyze financial reports, and maintain computerized accounting systems.

General Education Requirements (18-20 Credits):

CST 110 Introduction to Communication (3)
ENG 111-112 College Composition I-II (6)
MTH 151 Mathematics for the Liberal Arts I (3)
[or MTH 166 Precalculus with Trigonometry (4)]
Science Elective (3-4) *See page 161-163*
Social Science Elective (3) *See page 161-163*

Program Requirements (47 Credits):

ACC 211 Principles of Accounting I (3)
ACC 212 Principles of Accounting II (3)
ACC 215 Computerized Accounting (3)
ACC 221 Intermediate Accounting I (3)
ACC 222 Intermediate Accounting II (3)
CSC 200 Introduction to Computer Science (3)
ITD 110 Web Page Design I (3)
ITE 115 Intro to Computer Applications & Concepts (3)
[or ITE 119 Information Literacy (3)]
[or EGR 216 Computer Methods in Engineering (3)]
ITE 140 Spreadsheet Software (3)
ITE 150 Desktop Database Software or ITD 130 Database Fundamentals (3)
ITE 199 Supervised Study – Certification Study (1)
[or ACC 299 (1)]
ITE 290 Coordinated Internship (3)
[or ITE 297 Cooperative Education (3)]
ITE 299 Supervised Study in IST (1)
ITN 106 Microcomputer Operating Systems (3)
ITP 110 Visual Basic Programming I (3)
MKT 260 Customer Service Management (3)
[or ACC 211 Principles of Accounting (3)]
[or BUS 100 Introduction to Business (3)]
SDV 108 College Survival Skills (1)
Wellness PED/HLT EEE (2) *See page 161-163*

Minimum required for degree: 65 - 67 Credit

Advising Sheet Suggested Schedules: Courses in advising sheets are displayed under the semester in which the courses are regularly offered. It is possible that a course shown on the schedule for a particular semester may not be offered due to low enrollment or other factors.

Advising Sheet for AAS: Information Systems Technology 2016-17
Specialization Accounting Information Systems

Developmental English Pre-requisites met: _____yes _____no			
Required	ENF1	ENF2	ENF3
Met			

Developmental Math Pre-requisites met: _____yes _____no								
Required	MOD1	MOD2	MOD3	MOD4	MOD5	MOD6	MOD7	MOD8
Met								

Fall Semester Courses:			**Completed**
ACC 211	Principles of Accounting I	3.0	
ENG.111	College Composition I	3.0	
CSC 200	Introduction to Computer Science	3.0	_____
ITE.115	Introduction to Computer Applications and Concepts	3.0	_____
MTH 151	Mathematics for the Liberal Arts I	3.0	
SDV.108	College Survival Skills	1.0	_____
		Total 16	

Next Actions which follow or can be accomplished during the First Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester

---

Spring Semester Courses:			**Completed**
ACC 212	Principles of Accounting II	3.0	_____
ENG.112	College Composition II	3.0	_____
CST.110	Introduction to Speech Communication	3.0	_____
ITN.106	Microcomputer Operating Systems	3.0	_____
ITE.140	Spreadsheet Software	3.0	_____
ITE.199	Supervised Study – Certification Study	1.0	_____
		Total 16	

Next Actions which follow or can be accomplished during the Second Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester
2. Take industry exam – MOS Excel

Fall Semester Courses:			**Completed**
ACC.215	Computerized Accounting	3.0	_____
ACC.221	Intermediate Accounting I	3.0	_____
ITE.150	Desktop Database Software	3.0	_____
ITD.110	Web Page Design I	3.0	_____
NAS.EEE	Natural Science Electives	3.0	_____
PED/HLT.EEE	Wellness Elective	1.0	_____
		Total 16	

Next Actions which follow or can be accomplished during the Third Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester
2. Take industry exam – Microsoft Office Specialist (MOS) Access
3. Meet with Experiential Learning Coordinator to prepare resume, plan internships, and/or receive assistance with job search.
4. Apply for degree graduation.

Spring Semester Courses:			**Completed**
ACC.222	Intermediate Accounting II	3.0	_____
ITP.110	Visual Basic Programming I	3.0	_____
MKT.260	Customer Service Management	3.0	_____
SOC.EEE	Social Science Elective	3.0	_____
PED/HLT.EEE	Wellness Elective	1.0	_____
ITE.290	Coordinated Internship	3.0	_____
ITE.299	Supervised Study	1.0	_____
		Total 17	

Information Systems Technology

Specialization: Game Design and Development

Award: Associate of Applied Science
Length: 65-68 credits

Purpose: Individuals who are seeking their first employment or those who wish to qualify for promotion in a present position or to another field, including self-employment, may benefit from this program. Students will be provided a broad background in game and simulation development, with practical applications in creative arts, audio/video technology, creative writing, modeling, design, and programming. Upon completion of the program, the student will be prepared for immediate employment.

Employment Objectives: Completion of this program may lead to employment or career advancement in any of a wide variety of positions such as such as game and simulation technician, art/animation specialist, game/simulation designer, testers, programmers, and audio/video specialist. Primary tasks and functions graduates will be able to perform include the design and development of programs related to game and simulation in such industries as health care, forensics, education, entertainment, engineering, and government.

Potential Certification: A student may elect to take a certification exam. The examinations generally require a testing fee paid by the student. After completion of this program, a student will be academically prepared to take the following examinations:

- Microsoft Certified Solution Developer (MCSD).
- Certiport, Inc. - IC3.

Curriculum Requirements: Students must successfully complete all of the general education and program requirements listed below to be awarded this degree.

Program Learning Outcomes: A student will be able to:

- Demonstrate minimum proficiency in General Education Skills which are defined as oral communication, written communication, mathematical/problem solving, scientific reasoning, information literacy, and critical thinking.
- Demonstrate proficiency with computer hardware, software, operating systems, and business applications.
- Demonstrate acceptable workplace skills, attitudes, and behaviors.
- Design and develop a computer game using professional principles and standards.

General Education Requirements (18-20 Credits):

CST	110	Introduction to Communication (3)
ENG	111-112	College Composition I-II (6)
MTH	151	Mathematics for the Liberal Arts I (3)
		[or MTH 166 Precalculus with Trigonometry (4)]
Science Elective (3-4)		*See page 161-163*
Social Science Elective (3)		*See page 161-163*

Program Requirements (47-48 Credits):

ART	121	Drawing (3)
CAD	238	Computer Aided Modeling 1 (3)
CAD	241	Parametric Solid Modeling 1 (3)
CSC	200	Introduction to Computer Science (3)
ITD	110	Web Page Design I (3)
ITD	112	Designing Web Page Graphics (3)
ITE	115	Intro to Computer Applications & Concepts (3)
		[or ITE 119 Information Literacy (3)]
		[or EGR 216 Computer Methods in Engineering (3)]
ITE	199	Supervised Study – Certification Study (1)
ITE	290	Coordinated Internship (3)
		[or ITE 297 Cooperative Education (3)]
ITE	299	Supervised Study in IST (1)
ITN	106	Microcomputer Operating Systems (3)
ITP	110	Visual Basic Programming I (3)
ITP	120	Java Programming I (4)
		[or CSC 201 Computer Science I (4)]
ITP	160	Intro to Game Design and Development (3)
ITE	EEE	Elective (3-4) *See page 161-163*
MKT	260	Customer Service Management (3)
		[or ACC 211 Principles of Accounting (3)
		[or BUS 100 Introduction to Business (3)]
SDV	108	College Survival Skills (1)
Wellness		PED/HLT EEE (1) *See page 161-163*

Minimum required for degree: 65 - 68 Credits

Advising Sheet Suggested Schedules: Courses in advising sheets are displayed under the semester in which the courses are regularly offered. It is possible that a course shown on the schedule for a particular semester may not be offered due to low enrollment or other factors.

Advising Sheet for AAS: Information Systems Technology 2016-17
Specialization Game Design and Development

Developmental English Pre-requisites met: _____yes _____no			
Required	ENF1	ENF2	ENF3
Met			

Developmental Math Pre-requisites met: _____yes _____no								
Required	MOD1	MOD2	MOD3	MOD4	MOD5	MOD6	MOD7	MOD8
Met								

Fall Semester Courses:			**Completed**
ENG.111	College Composition I	3.0	_____
CSC.200	Introduction to Computer Science	3.0	_____
ITD.110	Web Page Design I	3.0	_____
ITE.115	Introduction to Computer Applications and Concepts	3.0	_____
CAD.238	Computer Aided Modeling I	3.0	_____
SDV.108	College Survival Skills	1.0	_____
		Total 16	

Next Actions which follow or can be accomplished during the First Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester

Spring Semester Courses:			**Completed**
ENG.112	College Composition II	3.0	
MTH.151	Mathematics for the Liberal Arts I	3.0	
CAD.241	Parametric Solid Modeling I	3.0	
ITP.110	Visual Basic Programming	3.0	_____
ITP.160	Game Design	3.0	_____
ITE.199	Supervised Study – Certification Study	1.0	_____
		Total 16	

Next Actions which follow or can be accomplished during the Second Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester
2. Take industry exam –, Certiport, Inc. IC3

Fall Semester Courses:			**Completed**
CST.110	Introduction to Speech Communication	3.0	_____
ART.121	Drawing I	3.0	_____
ITP.120	Java Programming I	4.0	
ITE.EEE	Information Technology Elective	3.0	
NAS.EEE	Natural Science Elective	3.0	_____
PED/HLT.EEE	Wellness Elective	1.0	_____
		Total 17	

Next Actions which follow or can be accomplished during the Third Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester
2. Meet with Experiential Learning Coordinator to prepare resume, plan internships, and/or receive assistance with job search.
3. Apply for degree graduation.

Spring Semester Courses:			**Completed**
ITD.112	Designing Web Page Graphics	3.0	_____
ITN.106	Microcomputer Operating Systems	3.0	_____
MKT.260	Customer Service Management	3.0	_____
SOC.EEE	Social Science Elective	3.0	_____
ITE.290	Coordinated Internship	3.0	_____
ITE.299	Supervised Study	1.0	_____
		Total 16	

Information Technology

Information Systems Technology

Specialization: Internet Services

Award: Associate of Applied Science
Length: 65-68 credits

Internet Webmaster

Award: Career Studies Certificate
Length: 18 credits

	INTERNET SERVICES SPECIALIZATION (AAS)	INTERNET WEBMASTER (CSC)
ENG 111 (3)	●	
ENG 112 (3)	●	
MTH 151 (3) or MTH 166 (4)	●	
Science Elective - NAS EEE (3-4)	●	
CST 110 (3)	●	
Social Science Elective (3)	●	
CSC 200 (3)	●	●
ITD 110 (3)	●	●
ITD 112 (3)	●	
ITD 130 (3)	●	●
ITD 210 (3)	●	
ITE 115 (3) or ITE 119 (3) or EGR 216 (3)	●	●
ITE 130 (3)	●	
ITE 199 (1)	●	●
ITE 290 (3)	●	
ITE 299 (1)	●	
ITN 106 (3)	●	
ITN 154 (4)	●	●
ITN 260 (3)	●	
Choose 2: CSC 201 (4), CSC 202 (4), ITP 120 (4), ITP 220 (4)	●	
MKT 260 (3) or ACC 211 (3) or BUS 165 (3)	●	
SDV 108 (1)	●	●
Wellness (HLT/PED EEE) (1)	●	

Information Systems Technology Specialization: Internet Services

Award: Associate of Applied Science
Length: 65-68 credits

Purpose: Individuals who are seeking their first employment or those who wish to qualify for promotion in a present position or to another field, including self-employment, may benefit from this program. Students will be provided with technical knowledge and skill in Web page design, Internet programming, Internet database design, and related topics. This program provides skills to develop and design Web pages, use programming languages to develop Web pages, and be familiar with Internet protocols, security, and applications.

Employment Objectives: Completion of this program may lead to employment or career advancement in any of a wide variety of positions such as Web page designer, Internet programmer, Web site manager, or Web author. Primary tasks and functions graduates will be able to perform include the ability to analyze and design Web pages using Internet programming languages, test and implement programs on the Web, develop Web pages, develop Internet databases, and manage the technical duties related to Internet services.

Potential Certification: A student may elect to take a certification exam. The examinations generally require a testing fee paid by the student. After completion of this program, a student will be academically prepared to take the following examinations:

- Certified Internet Webmaster (CIW) – CIW Associate.
- Certiport, Inc. - IC3.

Program Learning Outcomes: A student will be able to:
A student will be able to:

- Demonstrate minimum proficiency in General Education Skills which are defined as oral communication, written communication, mathematical/problem solving, scientific reasoning, information literacy, and critical thinking.
- Demonstrate proficiency with computer hardware, software, operating systems, and business applications.
- Demonstrate acceptable workplace skills, attitudes, and behaviors.
- Design and develop a website using professional principles and standards.

General Education Requirements (18-20 Credits):

CST 110 Introduction to Communication (3)
ENG 111-112 College Composition I-II (6)
MTH 151 Mathematics for the Liberal Arts I (3)
[or MTH 166 Precalculus with Trigonometry (4)]
Science Elective (3-4) *See page 161-163*
Social Science Elective (3) *See page 161-163*

Program Requirements (49 Credits):

CSC 200 Introduction to Computer Science (3)
ITD 110 Web Page Design I (3)
ITD 112 Designing Web Page Graphics (3)
ITD 210 Web Page Design II (3)
ITD 130 Database Fundamentals (3)
ITE 115 Intro to Computer Applications & Concepts (3)
[or ITE 119 Information Literacy (3)]
[or EGR 216 Computer Methods in Engineering (3)]
ITE 130 Introduction to Internet Services (3)
ITE 199 Supervised Study – Certification Study (1)
ITE 290 Coordinated Internship (3)
[or ITE 297 Cooperative Education (3)]
ITN 106 Microcomputer Operating Systems (3)
ITE 299 Supervised Study in IST (1)

ITN 154 Network Fundamentals, Router Basics, and Configuration (ICND1) – Cisco (4)
ITN 260 Network Security Basics (3)
Choose 2: CSC 201 Computer Science I (4), CSC 202 Computer Science II (4), ITP 120 Java Programming I (4), ITP 220 Java Programming II (4).
MKT 260 Customer Service Management (3)
[or ACC 211 Principles of Accounting (3)]
[or BUS 100 Introduction to Business (3)]
SDV 108 College Survival Skills (1)
Wellness PED/HLT EEE (1) *See page 161-163*

Minimum required for degree: 67 Credits

Internet Webmaster

Award: Career Studies Certificate
Length: 18 credits

Purpose: This program is designed to provide skills and knowledge needed for employment as a webmaster and certification from CIW as a Certified Internet Webmaster Associate.

Employment Objectives: Employment opportunities include Web Developer, Web Designer, Webmaster, Web Site Manager, and Web Programmer.

Potential Certification: A student may elect to take an industry-specific certification exam. The examinations generally require a testing fee paid by the student. After completion of this program, a student will be academically prepared to take the following examination:

- CIW: Certified Internet Webmaster Associate.

Program Learning Outcomes: A student will be able to:

- Demonstrate basic knowledge of Internet fundamentals and technologies.
- Demonstrate web authoring fundamentals using HTML 5.

Program Requirements (18 Credits):

CSC 200 Introduction to Computer Science (3)
ITE 115 Intro. Computer Applications & Concepts (3)
ITE 130 Introduction to Internet Services (3)
ITE 199 Supervised Study-Certification Exam Preparation (1)
ITD 110 Web Page Design I (3)
ITN 154 Network Fundamentals, Router Basics, and Configuration (ICND1) – Cisco (4)
SDV 108 College Survival Skills (1)

Minimum required for certificate: 18 Credits

Advising Sheet Suggested Schedules: Courses in advising sheets are displayed under the semester in which the courses are regularly offered. It is possible that a course shown on the schedule for a particular semester may not be offered due to low enrollment or other factors.

Advising Sheet for AAS: Information Systems Technology 2016-17
Specialization: Internet Services

Developmental English Pre-requisites met: _____yes _____no			
Required	ENF1	ENF2	ENF3
Met			

Developmental Math Pre-requisites met: _____yes _____no									
Required	MOD1	MOD2	MOD3	MOD4	MOD5	MOD6	MOD7	MOD8	MOD9
Met									

Note: Classes that are shaded meet the requirements of the Internet Webmaster Career Studies Certificate.

Fall Semester Courses:			**Completed**
ENG.111	College Composition I	3.0	
CSC.200	Introduction to Computer Science	3.0	
ITD.110	Web Page Design I	3.0	
ITE.115	Introduction to Computer Applications and Concepts	3.0	
ITN.154	Network Fundamentals, Router Basics, and Configuration (ICND1) – Cisco (4)	4.0	_____
SDV.108	College Survival Skills	1.0	
		Total 17	

Next Actions which follow or can be accomplished during the First Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester

---

Spring Semester Courses:			**Completed**
ENG.112	College Composition II	3.0	_____
MTH.151	Mathematics for the Liberal Arts I	3.0	_____
ITE.130	Introduction to Internet Services	3.0	_____
ITN.106	Microcomputer Operating Systems	3.0	_____
ITD.210	Web Page Design II	3.0	
ITE.199	Supervised Study – Certification Study	1.0	_____
		Total 16	

Next Actions which follow or can be accomplished during the Second Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester
2. Take industry exam – CIW Associate
3. Apply for career studies certificate

Fall Semester Courses:			**Completed**
CST.110	Introduction to Speech Communication	3.0	_____
ITP.120	Java Programming	4.0	_____
SOC.EEE	Social Science Elective	3.0	_____
MKT.260	Customer Service Management	3.0	_____
NAS.EEE	Natural Science Electives	3.0	_____
PED/HLT.EEE	Wellness Elective	1.0	_____
		Total 17	

Next Actions which follow or can be accomplished during the Third Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester
2. Meet with Experiential Learning Coordinator to prepare resume, plan internships, and/or receive assistance with job search.
3. Apply for degree graduation.

Spring Semester Courses:			**Completed**
ITD.130	Database Fundamentals	3.0	_____
ITN.260	Network Security Basics	3.0	_____
ITP.220	Java Programming II	4.0	_____
ITD.112	Web Page Graphics	3.0	_____
ITE.290	Coordinated Internship	3.0	_____
ITE.299	Supervised Study	1.0	_____
		Total 17	

Transfer Studies and Education

Education Assisting

Award: Associate of Applied Science
Length: 67 credits

Early Childhood Education

Award: Certificate
Length: 31 credits

Early Childhood Instruction

Award: Career Studies Certificate
Length: 16 credits

PROGRAM CONTENT COMPARISON			
	Education Assisting (AAS)	**Early Childhood Instruction (CERT)**	**Early Childhood Instruction (CSC)**
CST 110 (3)	●		
ENG 111 (3)	●	●	
ENG 112 (3)	●		
MTH 151 (3)	●		
PSY 235 (3)	●	●	
Social Science Elective (3)	●		
CHD 118 (3)	●	●	
CHD 119 (3)	●		
CHD 120 (3)	●	●	●
CHD 145 (3)	●	●	●
CHD 146 (3)	●	●	
CHD 165 (3)	●	●	●
CHD 166 (3)	●		
CHD 205 (3)	●	●	●
CHD 210 (3)	●		
CHD 215 (3)	●		
CHD 216 (3)	●		
CHD 265 (3)	●		
CHD 270 (3)	●	●	
EDU 235 (3)	●	●	●
EDU 299 (1)	●		
HLT 100 (2)	●		
ITE 115 (3)	●		
SDV 108 (1)	●	●	●

Education Assisting

Award: Associate of Applied Science
Length: 67 credits

Purpose: This program is designed to prepare early childhood professionals with the knowledge and skills needed to successfully manage a classroom and teach students from diverse backgrounds with varied academic and developmental needs. Graduates will be prepared to work with students in a variety of educational environments including childcare centers, Head Start, and public school classroom assistants. Students will learn to use an array of teaching methods, approaches to classroom management, and methods for teaching exceptional students. The program does not lead to a teacher's license. Students who know they want to acquire a bachelor's degree and a license to teach should investigate the PHCC General Studies Teacher Prep Specialization degree.

Program Learning Outcomes: A student will be able to:

- Demonstrate minimum proficiency in General Education Skills which are defined as oral communication, written communication, mathematical/problem solving, scientific reasoning, information literacy and critical thinking.
- Demonstrate knowledge of safe and healthy environments for young children.
- Observe and document a student's developmental and academic levels.
- Identify ethical and professional guidelines when working in the early childhood field.
- Design effective, developmentally appropriate lesson plans that match Virginia learning standards, including Milestones of Child Development, Foundation Blocks for Early Learning, and the Standards of Learning.
- Demonstrate knowledge of physical, cognitive, and social-emotional development from birth to adolescence.
- Design, teach, and reflect on lesson plans that match Virginia standards and the developmental needs of the child.

Curriculum Requirements: Students must successfully complete all of the requirements (general education and program requirements) listed under the program information to be awarded the Associate of Applied Science in Education Assisting.

General Education Requirements (18) Credits)

CST 110 Introduction to Communication (3)
ENG 111-112 College Composition I-II (6)
MTH 151 Mathematics for the Liberal Arts I (3)
PSY 235 Child Psychology (3)
Social Science Elective (3)

Program Requirements (49) Credits)

CHD 118 Methods and Materials in the Language Arts for Children (3)
CHD 119 Introduction to Reading Methods (3)
CHD 120 Intro to Early Childhood Education (3)
CHD 145 Teaching Art, Music and Movement to Children (3)
CHD 146 Math, Science, and Social Studies for Young Children (3)
CHD 165 Observation and Participation in ECE Settings (3)
CHD 166 Infant and Toddler Programs (3)
CHD 205 Guiding the Behavior of Children (3)
CHD 210 Introduction to Exceptional Children (3)
CHD 215 Models of Early Childhood Education Programs (3)
CHD 216 Early Childhood Programs, Schools, and Social Change (3)
CHD 265 Observation and Participation in Early Childhood/Primary Settings (3)
CHD 270 Administration of Early Childhood Programs (3)
EDU 235 Health & Recreation for School Age Child Care (3)

EDU	299	Supervised Study in Education Assisting (1)
HLT	100	First Aid & Cardiopulmonary Resuscitation (2)
ITE	115	Intro. Computer Applications & Concepts (3)
SDV	108	College Survival Skills (1)

Minimum required for degree: 67 Credits

Early Childhood Education

Award: Certificate
Length: 16 credits

Purpose: This program is designed to improve the quality of education provided in early childhood programs. Courses and content covered are based on Virginia's Core Competencies for Early Childhood Professionals and NAEYC's Standards for Initial Early Childhood Professional Preparation. Graduates of the program will be qualified to serve as a director/administrator or a lead teacher in a licensed child care center, early learning center, or family day home in the state of Virginia.

Program Learning Outcomes: Students will be able to:

- Demonstrate knowledge of safe and healthy environments for young children.
- Observe and document a student's developmental and academic levels.
- Identify ethical and professional guidelines when working in the early childhood field.
- Design effective, developmentally appropriate lesson plans that match Virginia learning standards, including Milestones of Child Development, Foundation Blocks for Early Learning, and the Standards of Learning.
- Demonstrate knowledge of physical, cognitive, and social-emotional development from birth to adolescence.

General Education Requirements (6 Credits):

ENG	111	College Composition I (3)
PSY	235	Child Psychology (3)

Program Requirements (25 Credits):

CHD	118	Methods & Materials Language Arts for Children (3)
CHD	120	Introduction to Early Childhood Education (3)
CHD	145	Teaching Art, Music, and Movement to Children (3)
CHD	146	Math, Science, and Social Studies for Young Children (3)
CHD	165	Observation and Participation in Early Childhood/Primary Settings (3)
CHD	205	Guiding the Behavior of Children (3)
CHD	270	Administration of Childhood Programs (3)
EDU	235	Health, Safety, and Nutrition Education (3)
SDV	108	College Survival Skills (1)

Minimum required for certificate: 31 Credits

Early Childhood Instruction

Award: Career Studies Certificate
Length: 16 credits

Purpose: This program is an introduction to the field, designed to provide entry-level competencies documented by Virginia's Competencies for Early Childhood Professionals and NAEYC's Standards for Initial Early Childhood Professional Preparation. Graduates are qualified to work in Head Start preschool classrooms, childcare centers, family child care homes, and before and after school programs. This program also satisfies the level 2 requirements for Virginia's Quality Rating and Improvement System.

Program Learning Outcomes: Students will be able to:

- Demonstrate knowledge of safe and healthy environments for young children.
- Observe and document a student's developmental and academic levels.
- Identify ethical and professional guidelines when working in the early childhood field.

Program Requirements (16 Credits):

CHD	120	Introduction to Early Childhood Education (3)
CHD	145	Teaching Art, Music, and Movement to Children (3)
CHD	165	Observation and Participation in Early Childhood/Primary Settings (3)
CHD	205	Guiding the Behavior of Children (3)
EDU	235	Health, Safety, and Nutrition Education (3)
SDV	108	College Survival Skills (1)

Students must complete each of the above requirements for a total of 16 credits to be awarded the Career Studies Certificate in Early Childhood Instruction.

Advising Sheet Suggested Schedules: Courses in advising sheets are displayed under the semester in which the courses are regularly offered. It is possible that a course shown on the schedule for a particular semester may not be offered due to low enrollment or other factors.

Advising Sheet for AAS: Education Assisting 2016-17

Developmental English Pre-requisites met: _____yes _____no			
Required	ENF1	ENF2	ENF3
Met			

Developmental Math Pre-requisites met: _____yes _____no						
Required	MOD1	MOD2	MOD3	Mod4	Mod 5	
Met						

Note: Classes that are shaded meet the requirements of the Certificate in Early Childhood Education.
Classes marked with **(ECI)** meet the requirements of the Career Studies Certificate in Early Childhood Instruction.

First Semester Courses:				**Completed**
ECI	CHD.120	Introduction to Early childhood Education	3.0	_____
ECI	CHD.145	Teaching Art, Music and Movement to Children	3.0	_____
ECI	CHD.165	Observation and Participation in ECE Settings	3.0	_____
	CST.110	Introduction to Communication	3.0	_____
	ENG.111	English Composition I	3.0	_____
ECI	SDV.108	College Survival Skills	1.0	_____
		Total	16	

Next Actions which follow or can be accomplished during the First Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester

Second Semester Courses:			**Completed**
CHD.166	Infant and Toddler Programs	3.0	_____
ECI CHD.205	Guiding the Behavior of Children	3.0	_____
ECI EDU.235	Health & Recreation for School Age Child Care	3.0	_____
ENG.112	College Composition II	3.0	_____
MTH.151	Mathematics for the Liberal Arts I	3.0	_____
PSY.235	Child Psychology	3.0	_____
	Total	18	

Next Actions which follow or can be accomplished during the Second Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester

Third Semester Courses:			**Completed**
CHD.118	Methods and Materials in the Language Arts for Children	3.0	_____
CHD.146	Math, Science, and Social Studies for Young Children	3.0	_____
CHD.210	Introduction to Exceptional Children	3.0	_____
CHD.215	Models of Early Childhood Education Programs	3.0	_____
CHD.270	Administration of Early Childhood Programs	3.0	_____
ITE.115	Introduction to Computer Applications & Concepts	3.0	
	Total	18	

Next Actions which follow or can be accomplished during the Third Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester
2. Meet with academic advisor or transfer advisor to discuss four-year transfer options.
3. Meet with program faculty to prepare resume, plan internships, and/or receive assistance with job search.
4. Apply for degree graduation.

Fourth Semester Courses:			**Completed**
CHD.119	Introduction to Reading Methods	3.0	_____
CHD 216	Early Childhood Programs, Schools, and Social Change	3.0	_____
CHD.265	Observation and Participation in Early Childhood/Primary Settings	3.0	_____
EDU.299	Supervised Study in Education Assisting	1.0	_____
HLT.100	First Aid & Cardiopulmonary Resuscitation	2.0	_____
SOC.EEE	Social Science Elective	3.0	_____
	Total	15	

Transfer Studies and Education

General Studies

Award: Associate Arts and Science
Length: 60-61 credits

Purpose: The curriculum is designed for the student who plans to complete a baccalaureate degree program. Students often select the general studies program if they intend to transfer to a four- year institution but are uncertain what their major will be. The transfer institution's catalog and transfer guide are the best sources of information for planning a course of study. Final responsibility for transferability of courses rests with the student and the registrar of that institution. Contact the division dean or an advisor for additional information.

Program Outcomes: A student will be able to:

General Education:

- Demonstrate proficiency in oral communication;
- Demonstrate effective written communication skills;
- Demonstrate proficiency in mathematical skills to solve problems;
- Demonstrate proficiency in scientific reasoning;
- Demonstrate proficiency in information literacy; and
- Demonstrate the ability to reason critically and apply logic to solve problems.

General Education Requirements (21-22 Credits):

CST 110 Introduction to Communication (3)
ENG 111-112 College Composition I-II (6)
HIS 121-122 United States History I-II (6)
[or HIS 101-102 History of Western Civilization I-II (6)]

Choose one of the following combinations to fulfill the Math requirement (choose based on the requirements of the transfer institution):

[a] MTH 163 Precalculus I (3)
[or MTH 166 Precalculus with Trigonometry (4)]
and MTH 241 Statistics I (3)
[or MTH 271 Applied Calculus I (3)]

[b] MTH 151 Mathematics for the Liberal Arts I (3)
and MTH 152 Mathematics for the Liberal Arts II (3)
[or MTH 241 Statistics I (3)]

Program Requirements (39 Credits):

NOTE: To select courses, student should consult the catalog of the institution(s) to which transfer is anticipated in addition to these requirements:

ITE 119 Information Literacy (3)
SDV 108 College Survival Skills (1)
SDV 199 Supervised Study in Transfer Programs (1)
Wellness PED/HLT EEE (2) *See page 161-163*

English Literature Elective (3 Credits). *See page 161-163*

Transfer Laboratory Science (8 Credits). *See page 161-163*

Social Science Electives (6 Credits). *See page 161-163*

Fine Arts Course (3 Credits). *See page 161-163*

Humanities Elective (HUM EEE) (3 Credits). *See page 161-163*

College Transfer Electives (9 Credits). *See page 161-163*

Minimum required for degree: 60-61 Credits

Advising Sheet Suggested Schedules: Courses in advising sheets are displayed under the semester in which the courses are regularly offered. It is possible that a course shown on the schedule for a particular semester may not be offered due to low enrollment or other factors.

Advising Sheet for AA&S: General Studies 2016-17

Developmental English Pre-requisites met: _____yes _____no			
Required	ENF1	ENF2	ENF3
Met			

Developmental Math Pre-requisites met: _____yes _____no					
Required	MOD1	MOD2	MOD3	MOD4	MOD5
Met					

Fall Semester Courses:		**Completed**
ENG.111	College Composition I	3.0 _____
HIS.121	United States History I	3.0 _____
MTH.151	Mathematics for the Liberal Arts I	3.0 _____
CST.110	Introduction to Speech Communication	3.0 _____
PED/HLT.EEE	Wellness Elective	1.0 _____
SDV.108	College Survival Skills	1.0 _____
	Total	14

Next Actions which follow or can be accomplished during the First Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester

Spring Semester Courses:		**Completed**
ENG.112	College Composition II	3.0 _____
HIS.122	United States History II	3.0 _____
MTH.157	Elementary Statistics	3.0 _____
ART.EEE	Arts Elective	3.0 _____
EEE.EEE	General Elective	3.0 _____
	Total	15

Next Actions which follow or can be accomplished during the Second Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester
2. Discuss eligibility for certificate, career studies certificate, and/or credential completion with academic advisor

Fall Semester Courses:		**Completed**
ENG.EEE	English Elective	3.0 _____
ITE.119	Information Literacy	3.0 _____
SOC.EEE	Social Science Elective	3.0 _____
HUM.EEE	Humanities Elective	3.0 _____
NAS.EEE	Natural Science Electives (3-4 credits)	4.0 _____
SDV.199	Supervised Study In	1.0 _____
	Total	17

Next Actions which follow or can be accomplished during the Third Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester
2. Meet with academic advisor or transfer advisor to discuss four-year transfer options.
3. Apply for degree graduation.

Spring Semester Courses:		**Completed**
SOC.EEE	Social Science Elective	3.0 _____
NAS.EEE	Natural Science Electives (3-4 credits)	4.0 _____
PED/HLT.EEE	Wellness Elective	1.0 _____
EEE.EEE	General Elective	3.0 _____
EEE.EEE	General Elective	3.0 _____
	Total	14

Transfer Studies and Education

General Studies

Specialization: Human Services

Award: Associate Arts and Science
Length: 60 credits

Purpose: The curriculum is designed for the student who plans to complete a baccalaureate degree program in human services. The intended transfer institution's catalog and transfer guide are the best sources of information for planning a course of study. Final responsibility for transferability of courses rests with the student and the registrar of that institution. Contact the division dean or an advisor for additional information.

Program Learning Outcomes: A student will be able to:
- Demonstrate proficiency in oral communication;
- Demonstrate effective written communication skills;
- Demonstrate proficiency in mathematical skills to solve problems;
- Demonstrate proficiency in scientific reasoning;
- Demonstrate proficiency in information literacy;
- Demonstrate the ability to reason critically and apply logic to solve problems; and
- Comprehend areas of employment within the field of Human Services.

General Education Requirements (18 Credits):

CST	110	Introduction to Communication (3)
ENG	111-112	College Composition I-II (6)
HIS	121-122	United States History I-II (6)
		[or HIS 101-102 History of Western Civilization I-II (6)]
MTH	157	Elementary Statistics (3)

Program Requirements (42 Credits):
NOTE: To select courses, student should consult the catalog of the institution(s) to which transfer is anticipated in addition to these requirements:

ITE	119	Information Literacy (3)	
SDV	199	Supervised Study in Transfer Programs (1)	
SDV	108	College Survival Skills (1)	
Wellness		PED/HLT EEE (2)	*See page 161-163*

Transfer Laboratory Science (8 Credits). *See page 161-163*

Social Sciences (6 Credits):

PSY	200	Principles of Psychology (3)
SOC	200	Principles to Sociology (3)

Humanities Elective (6 Credits). *See page 161-163*

Human Services (15 Credits)

HMS	100	Introduction to Human Services (3)
HMS	162	Communication Skills for Human Services Professionals (3)
HMS	195	Introduction to Developmental Disabilities (3)

HMS	**EEE**	**Approved HMS Electives (6 Credits) Select from:**
PSY	216	Social Psychology (3)
PSY	230	Developmental Psychology (3)
SOC	215	Sociology of the Family (3)
HMS	251	Substance Abuse I (3)
PSY	215	Abnormal Psychology (3)
HMS	290	Coordinated Internship in Human (3)
HMS	236	Gerontology (3)
PSY	219	Cross Cultural Psychology (3)
SOC	225	Sociology of Gender (3)

Minimum required for degree: 60 Credits

Advising Sheet Suggested Schedules: Courses in advising sheets are displayed under the semester in which the courses are regularly offered. It is possible that a course shown on the schedule for a particular semester may not be offered due to low enrollment or other factors.

Advising Sheet for AA&S: Specialization: Human Services 2016-17

Developmental English Pre-requisites met: _____yes _____no			
Required	ENF1	ENF2	ENF3
Met			

Developmental Math Pre-requisites met: _____yes _____no					
Required	MOD1	MOD2	MOD3	MOD4	MOD5
Met					

First Semester Courses:			**Completed**
ENG.111	College Composition I	3.0	_____
HIS.121	United States History I	3.0	_____
CST.110	Introduction to Speech Communication	3.0	_____
PSY.200	Principles of Psychology	3.0	_____
HMS.100	Introduction to Human Services	3.0	_____
SDV.108	College Survival Skills	1.0	_____
		Total 16	

Next Actions which follow or can be accomplished during the First Semester
1 .During Early Bird Registration, meet with academic advisor to enroll in next semester

Second Semester Courses:			**Completed**
ENG.112	College Composition II	3.0	_____
HIS.122	United States History II	3.0	_____
ITE.119	Information Literacy	3.0	_____
MTH.157	Elementary Statistics	3.0	_____
HMS.EEE	Human Services Elective	3.0	_____
		Total 15	

Next Actions which follow or can be accomplished during the Second Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester

Third Semester Courses:			**Completed**
HMS.195	Topics In	3.0	_____
HMS.EEE	Human Services Elective	3.0	_____
HUM.EEE	Humanities Elective	3.0	_____
NAS.EEE	Natural Science Electives	4.0	_____
SDV.199	Supervised Study In	1.0	_____
PED/HLT.EEE	Wellness Elective	1.0	_____
		Total 15	

Next Actions which follow or can be accomplished during the Third Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester
2. Meet with academic advisor or transfer advisor to discuss four-year transfer options.
3. Apply for degree graduation.

Fourth Semester Courses:			**Completed**
HUM.EEE	Humanities Elective	3.0	_____
HMS.162	Communication Skills for Human Services Professionals	3.0	_____
NAS.EEE	Natural Science Electives	4.0	_____
SOC.200	Principles of Sociology	3.0	_____
PED/HLT.EEE	Wellness Elective	1.0	_____
		Total 14	

General Studies

Specialization: Recreation, Parks, and Leisure Studies

Award: Associate Arts and Science
Length: 60 credits

Purpose: The curriculum is designed for the student who plans to complete a baccalaureate degree program in the area of recreation, parks, and leisure studies. The intended transfer institution's catalog and transfer guide are the best sources of information for planning a course of study. Final responsibility for transferability of courses rests with the student and the registrar of that institution. Contact the division dean or an advisor for additional information.

Program Learning Outcomes: A student will be able to:
- Demonstrate proficiency in oral communication;
- Demonstrate effective written communication skills;
- Demonstrate proficiency in mathematical skills to solve problems;
- Demonstrate proficiency in scientific reasoning;
- Demonstrate proficiency in information literacy;
- Demonstrate the ability to reason critically and apply logic to solve problems; and
- Create a philosophy of education based on recreation and parks management.

General Education Requirements (21 Credits):

CST	110	Introduction to Communication (3)
ENG	111-112	College Composition I-II (6)
HIS	121-122	United States History I-II (6)
		[or HIS 101-102 History of Western Civilization I-II (6)]
ITE	119	Information Literacy (3)
MTH	151	Mathematics for Liberal Arts I (3)

Program Requirements (39 Credits):
NOTE: To select courses, student should consult the catalog of the institution(s) to which transfer is anticipated in addition to these requirements:

SDV	108	College Survival Skills (1)	
SDV	199	Supervised Study in Transfer Programs (1)	
Wellness		PED/HLT EEE (2)	*See page 161-163*

Laboratory Science Elective (8 Credits) *See page 161-163*

Social Science Elective (6 Credits): *See page 161-163*

Humanities Elective (6 Credits): *See page 161-163*

Recreation, Parks, and Leisure Studies (15 Credits):

PED	210	Introduction to Physical Education and Health (3)
RPK	100	Introduction to Recreation, Parks, and Leisure Studies (3)
RPK	201	Recreation and Parks Management (3)
RPK	210	Principles and Psychology of Coaching (3)
RPK	265	Risk Management (3)

Minimum required for degree: 60 Credits

Advising Sheet Suggested Schedules: Courses in advising sheets are displayed under the semester in which the courses are regularly offered. It is possible that a course shown on the schedule for a particular semester may not be offered due to low enrollment or other factors.

Advising Sheet for AA&S: Specialization: Parks, Recreation, and Leisure Studies 2016-17

Developmental English Pre-requisites met: _____yes _____no			
Required	ENF1	ENF2	ENF3
Met			

Developmental Math Pre-requisites met: _____yes _____no					
Required	MOD1	MOD2	MOD3	MOD4	MOD5
Met					

Fall Semester Courses:			**Completed**
ENG.111	College Composition I	3.0	_____
HIS.121	United States History I	3.0	_____
HUM.EEE	Humanities Elective	3.0	_____
CST.110	Introduction to Speech Communication	3.0	_____
PED.EEE	PE Elective	1.0	_____
SDV.108	College Survival Skills	1.0	_____
		Total 14	

Next Actions which follow or can be accomplished during the First Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester

Spring Semester Courses:			**Completed**
ENG.112	College Composition II	3.0	_____
HIS.122	United States History II	3.0	_____
RPK.100	Introduction to Recreation, Parks & Leisure Studies	3.0	_____
HUM.EEE	Humanities Elective	3.0	_____
PED.210	Introduction to Physical Education and Health	3.0	_____
		Total 15	

Next Actions which follow or can be accomplished during the Second Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester

Fall Semester Courses:			**Completed**
RPK.201	Recreation and Parks Management	3.0	_____
ITE.119	Information Literacy	3.0	_____
SOC.EEE	Social Science Elective	3.0	_____
MTH.151	Mathematics for the Liberal Arts I	3.0	_____
NAS.EEE	Natural Science Electives	4.0	_____
SDV.199	Supervised Study In	1.0	_____
		Total 17	

Next Actions which follow or can be accomplished during the Third Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester
2. Meet with academic advisor or transfer advisor to discuss four-year transfer options.
3. Apply for degree graduation.

Spring Semester Courses:			**Completed**
SOC.EEE	Social Science Elective	3.0	_____
NAS.EEE	Natural Science Electives	4.0	_____
PED.EEE	PE Elective	1.0	_____
RPK.210	Principles and Psychology of Coaching	3.0	_____
RPK.265	Risk Management	3.0	_____
		Total 14	

Transfer Studies and Education

General Studies

Specialization: Teacher Education Preparation

Award: Associate Arts and Science
Length: 61 credits

Purpose: This specialization has been developed to facilitate transfer of credits earned by students with the Associate of Arts & Science (AA&S) degree in General Studies by taking a prescribed set of courses at Patrick Henry Community College to the Liberal Studies Elementary Education PreK-6 Initial Licensure Program at Longwood University.

> **NOTE**: Students wishing to complete teacher education at institutions other than Longwood University should enroll in the General Studies (no specialization) program. Moreover, students should also contact their transfer institution in order to determine specific degree requirements.

Admission Requirements: Longwood will guarantee acceptance of qualified PHCC graduates with an AA&S degree who have earned a minimum grade point average (GPA) of 2.5 on a four point scale at the time of application and graduation. This cumulative GPA includes the GPA as calculated by PHCC and the cumulative GPA of all other colleges attended. The GPA of 2.5 may not include more than five classes retaken with only the higher grade being calculated by the GPA. Students with a GPA below 2.5 at the time of application and/or time of graduation may be considered for admission but without the guaranteed acceptance.

Other Information: Students are strongly encouraged to apply by March 1 (for fall term) and November 1 (for spring term).

Credits earned through examination (AP, IB, CLEP, or DANTES) that were awarded credit by PHCC will be treated on an equal basis as other credits earned at PHCC. Official transcripts from each college attended and/or official documentation regarding these examinations must be provided.

Students are required to pass PRAXIS I for entry in the Longwood/ NCI Teacher Prep program.

Transfer Information: Longwood University agrees that PHCC graduates who are accepted will be granted junior status; all of their credits earned toward their AA&S degree will transfer (including D grades except for ENG 111, PSY 230, and EDU 200); and all of their lower-division general education goals will be met. This assumption is based on the fact that students have completed courses as outlined below.

PHCC students who complete the associate degree through dual enrollment are NOT guaranteed admission under the terms of the transfer agreement. However, such students may apply to Longwood as freshmen. When these students' applications are reviewed, high school performance, test scores (SAT/ACT), and other criteria used in the freshman review process will be considered.

Program Outcomes: A student will be able to:

- Demonstrate proficiency in oral communication;
- Demonstrate effective written communication skills;
- Demonstrate proficiency in mathematical skills to solve problems;
- Demonstrate proficiency in scientific reasoning;
- Demonstrate proficiency in information literacy;
- Demonstrate the ability to reason critically and apply logic to solve problems; and
- Complete a supervised field placement of a minim of 40 hours in a preK-6 environment (Teacher Education Preparation);

General Education Requirements (21Credits):

CST	110	Introduction to Communication (3)
ENG	111-112	College Composition I-II (6)
ENG	250	Children's Literature (3)
HIS	121	United States History I (3)
	[or HIS	122 United States History II (3)]
MTH	163	Precalculus (3)
MTH	157	Elementary Statistics (3)

Program Requirements (42 Credits):

EDU	200	Introduction to Teaching as a Profession (3)
GEO	225	Economic Geography (3)
GOL	110	Earth Science (4)
HLT	100	First Aid/CPR (3)
ITE	119	Information Literacy (3)
PHI	220	Ethics (3)
PHY	101	Physics I (4)
SDV	108	College Survival Skills (1)
SDV	199	Supervised Study in Transfer Programs (1)

Transfer Laboratory Science (8 Credits)

BIO	101	General Biology I (4)
BIO	102	General Biology II (4)

Social Science Elective (6 Credits):

PSY	230	Developmental Psychology (3)
PLS	135	American National Politics (3)

Humanities/Fine Arts Electives (3 Credits):
Courses may be selected from the following:

ART	101	History and Appreciation of Art I (3)
ART	102	History and Appreciation of Art II (3)
CST	130	Introduction to the Theatre (3)
MUS	121	Music Appreciation I (3)

Minimum required for degree: 63 Credits

Advising Sheet Suggested Schedules: Courses in advising sheets are displayed under the semester in which the courses are regularly offered. It is possible that a course shown on the schedule for a particular semester may not be offered due to low enrollment or other factors.

Advising Sheet for AA&S: Specialization: Teacher Education Preparation 2016-17

Developmental English Pre-requisites met: _____yes _____no			
Required	ENF1	ENF2	ENF3
Met			

Developmental Math Pre-requisites met: _____yes _____no									
Required	MOD1	MOD2	MOD3	MOD4	MOD5	MOD6	MOD7	MOD8	MOD9
Met									

Fall Semester Courses:			**Completed**
ENG.111	College Composition I	3.0	_____
BIO.101	General Biology I	4.0	_____
MTH.163	Precalculus	3.0	_____
CST.110	Introduction to Speech Communication	3.0	_____
HLT.100	First Aid and Cardiopulmonary Resuscitation	3.0	_____
SDV.108	College Survival Skills	1.0	_____
		Total 17	

Next Actions which follow or can be accomplished during the First Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester

Spring Semester Courses:			**Completed**
ENG.112	College Composition II	3.0	_____
HIS.121	United States History I	3.0	_____
MTH.157	Elementary Statistics	3.0	_____
BIO.102	General Biology II	4.0	_____
PLS.135	American National Politics	3.0	_____
		Total 16	

Next Actions which follow or can be accomplished during the Second Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester

Fall Semester Courses:			**Completed**
ENG.250	Children's Literature	3.0	_____
ITE.119	Information Literacy	3.0	_____
PSY.230	Developmental Psychology	3.0	_____
PHY.101	Introduction to Physics I	4.0	_____
GEO.225	Economic Geography	3.0	_____
SDV.199	Supervised Study In	1.0	_____
		Total 17	

Next Actions which follow or can be accomplished during the Third Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester
2. Meet with academic advisor or transfer advisor to discuss four-year transfer options
3. Apply for degree graduation.

Spring Semester Courses:			**Completed**
EDU.200	Introduction to Teaching as a Profession	3.0	_____
PHI.220	Ethics	3.0	_____
GOL.110	Earth Science	4.0	_____
CST.130	Introduction to the Theatre	3.0	_____
		Total 13	

Transfer Studies and Education

Science

Award: Associate Arts and Science
Length: 60-62 credits

Purpose: The curriculum is designed for the student who plans to complete a baccalaureate degree program. The transfer institution's catalog and transfer guide are the best sources of information for planning a course of study. Final responsibility for transferability of courses rests with the student and the registrar of that institution.

Curriculum Requirements: Students must successfully complete all of the requirements listed below to be awarded this degree.

Program Outcomes: A student will be able to:

- Demonstrate minimum proficiency in General Education Skills which are defined as oral communication, written communication, mathematical/problem solving, scientific reasoning, information literacy, and critical thinking.
- Demonstrate competency in scientific thinking by designing an appropriate experiment and identifying key components.
- Demonstrate quantitative literacy by using and interpreting tables and graphs.
- Demonstrate scientific literacy by correctly using the terms, hypothesis, law, and theory in their scientific context.

General Education Requirements (22-23 Credits):

CST 110 Introduction to Communication (3)
ENG 111-112 College Composition I-II (6)
HIS 121-122 United States History I-II (6)
[or HIS 101-102 History of Western Civilization I-II (6)]

Choose one of the following combinations to fulfill the Math requirement (choose based on the requirements of the transfer institution):

[a] MTH 166 Precalculus with Trigonometry (4)
and MTH 271 Applied Calculus I (3)
or
[b] MTH 166 Precalculus with Trigonometry (4)
and MTH 273 Calculus I (4)
or
[c] MTH 273 Calculus I (4)
and MTH 274 Calculus II (4)
or
[d] Choose two math courses from Mathematic Electives, MTH 166 or higher *See page 161-163*

Program Requirements (38-39 Credits):

NOTE: To select courses, student should consult the catalog of the institution(s) to which transfer is anticipated in addition to these degree requirements.

ITE 119 Information Literacy (3)
SDV 108 College Survival Skills (1)
SDV 199 Supervised Study in Transfer Programs (1)
Wellness PED EEE (1) *See page 161-163*

Transfer Laboratory Science (16 Credits). Must complete 2 two-semester sequences. *See page 161-163*

Social Science (6 Credits). *See page 161-163*

College Transfer Electives (7-8 Credits). *See page 161-163*
(choose based on the requirements of the transfer institution)

Fine Arts Electives (3 Credits). *See page 161-163*

Minimum required for degree: 60-62 Credits

Advising Sheet Suggested Schedules: Courses in advising sheets are displayed under the semester in which the courses are regularly offered. It is possible that a course shown on the schedule for a particular semester may not be offered due to low enrollment or other factors.

Advising Sheet for AA&S: Science 2016-17

Developmental English Pre-requisites met: _____yes _____no			
Required	ENF1	ENF2	ENF3
Met			

Developmental Math Pre-requisites met: _____yes _____no									
Required	MOD1	MOD2	MOD3	MOD4	MOD5	MOD6	MOD7	MOD8	MOD9
Met									

Fall Semester Courses:			**Completed**
ENG.111	College Composition I	3.0	_____
CST.110	Introduction to Speech Communication	3.0	_____
HIS.121	United States History I	3.0	_____
NAS.EEE	Natural Science Electives (3-4 credits)	4.0	_____
SDV.108	College Survival Skills	1.0	_____
PED.EEE	PE Elective	1.0	_____
		Total 15	

Next Actions which follow or can be accomplished during the First Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester

Spring Semester Courses:			**Completed**
ENG.112	College Composition II	3.0	_____
HIS.122	United States History II	3.0	_____
MTH.1EE	Math 100+ Elective	4.0	_____
NAS.EEE	Natural Science Electives (3-4 credits)	4.0	_____
		Total 13	

Next Actions which follow or can be accomplished during the Second Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester

Fall Semester Courses:			**Completed**
ITE.119	Information Literacy	3.0	_____
MTH.1EE	Math 100+ Elective	4.0	_____
SOC.EEE	Social Science Elective	3.0	_____
NAS.EEE	Natural Science Electives (3-4 credits)	4.0	_____
ART.EEE	Arts Elective	3.0	_____
		Total 16	

Next Actions which follow or can be accomplished during the Third Semester
1. During Early Bird Registration, meet with academic advisor to enroll in next semester
2. Meet with Experiential Learning Coordinator to prepare resume, plan internships, and/or receive assistance with job search
3. Apply for degree graduation

Spring Semester Courses:			**Completed**
SDV.199	Supervised Study In	1.0	_____
NAS.EEE	Natural Science Electives (3-4 credits)	4.0	_____
SOC.EEE	Social Science Elective	3.0	_____
EEE.EEE	General Elective	3.0	_____
EEE.EEE	General Elective	3.0	_____
		Total 14	

Transfer Studies and Education

General Education

Award: Certificate
Length: 33 credits

Purpose: The Certificate in General Education is designed for students who are preparing to transfer to a four-year institution after one year of study. The program may also be attractive to students who intend to transition into one of PHCC's associate degrees. Course selection should be made in consultation with an academic advisor to ensure that students complete courses required by their transfer institution.

Program Description: This program consists of a minimum of 33 credit hours of instruction distributed into general education courses. Only courses which are transfer level college courses may be counted in this degree. This curriculum is the general equivalent of the first year of study in a PHCC transfer degree and it may be tailored to meet the requirements of most transfer degree programs at four-year institutions.

Admission Requirements: Entry into this curriculum is obtained by meeting the admission requirements established by the College. You must take developmental coursework as required by placement testing.

Curriculum Requirements: Requirements for the certificate are listed in the curriculum below.

General Education/Program Requirements

ENG	111-112	College Composition I-II (6)
SDV	108	College Survival Skills (1)

Humanities/Fine Arts Elective (6 credits) selected from:
See page 161-163

Math Elective (3 credits) selected from:

MTH	EEE	Math Elective	*See page 161-163*

Natural Science Elective (8 credits) selected from:
See page 161-163

Social Science Elective (9 credits) selected from:
See page 161-163

Minimum required for certificate: 33 Credits

Infant and Toddler Care

Award: Career Studies Certificate
Length: 16 credits
Purpose: Graduates will gain fundamental skills for entry level as preschool assistants and is approved for Early Head Start.

Program Learning Outcome:
• Demonstrate proficiency in education methods, instructional technology, presentations, and lesson planning for early preschools of infant and toddler aged children.

CHD	120	Introduction to Early Childhood Education (3)
CHD	164	Working with Infants and Toddlers in Inclusive Settings (3)
CHD	165	Observation and Participation in Early Childhood/Primary Settings (3)
CHD	166	Infant and Toddler Programs (3)
EDU	235	Health, Safety, and Nutrition Education (3)
SDV	108	College Survival Skills (1)

Minimum required for Career Studies Certificate: 16 Credits

Advising Sheet Suggested Schedules: Courses in advising sheets are displayed under the semester in which the courses are regularly offered. It is possible that a course shown on the schedule for a particular semester may not be offered due to low enrollment or other factors.

Advising Sheet for Certificate: General Education 2016-17

Developmental English Pre-requisites met: _____yes _____no			
Required	ENF1	ENF2	ENF3
Met			

Developmental Math Pre-requisites met: _____yes _____no									
Required	MOD1	MOD2	MOD3	MOD4	MOD5				
Met									

Fall Semester Courses:			**Completed**
ENG.111	College Composition I	3.0	_____
HUM.EEE	Humanities Elective	3.0	_____
MTH.EEE	Math Elective	3.0	_____
NAS.EEE	Natural Science Electives	4.0	_____
SOC.EEE	Social Science Elective	3.0	_____
SDV.108	College Survival Skills	1.0	_____
		Total 17	

Next Actions which follow or can be accomplished during the First Semester

1. During Early Bird Registration, meet with academic advisor to enroll in next semester
2. Apply for certificate graduation.

Spring Semester Courses:			**Completed**
ENG.112	College Composition II	3.0	_____
HUM.EEE	Humanities Elective	3.0	_____
NAS.EEE	Natural Science Electives	4.0	_____
SOC.EEE	Social Science Elective	3.0	_____
SOC.EEE	Social Science Elective	3.0	_____
		Total 16	

COURSE DESCRIPTIONS

Developmental Prerequisites

Students may not enroll in the following programs until they have demonstrated proficiency on the placement examination or completed the appropriate development.

Course #	**Course Name**	**Developmental Requirement**
ACC --	All ACC course	A placement of ENF 3 or above, MTE 1-3
ADJ --	All ADJ courses	A placement of ENF 2 or above
ART 100, 101-102 ART 201-202	Art Appreciation and History of Art I-II; History of Art I-II	A placement of ENF 3 or above
AST --	All 3-digit AST courses	A placement of ENF 3 or above
AST 101	Keyboarding I	A placement of ENF 3 or above
BIO --	All BIO courses	A Placement of ENF 3 or above. MTE 1-3
BUS --	All BUS courses	A placement of ENF 3 or above
CHD --	All CHD courses	A placement of ENF 2 or above
CHM 101-102	General Chemistry I-II	MTE 1-9, A Placement of ENF 3 or above
CHM 110	Survey of Chemistry	MTE 1-3, A Placement of ENF 2 or above
CHM 111-112	College Chemistry I-II	MTE 1-9, A Placement of ENF 3 or above
CHM 241-242	Organic Chemistry I-II	MTE 1-9, A Placement of ENF 3 or above
CSC --	All CSC courses	A Placement of ENF 3 or above, MTE 1-3
CST 110	Introduction to Speech Communication	A placement of ENF 2 or above
CST 231-232	History of the Theatre	A placement of ENF 3 or above
ECO --	All ECO courses	A placement of ENF 3 or above, MTE 1-3
EDU --	All EDU courses	A placement of ENF 3 or above
ENG --	All ENG courses	A placement of ENF 3 or above
ENV --	All ENV courses	A placement of ENF 3 or above
FIN --	All FIN courses	A placement of ENF 3 or above, MTE 1-3
GEO --	All GEO courses	A Placement of ENF 3 or above
GOL --	All GOL courses	A placement of ENF 3 or above
HCT 101-102	Health Care Technician I-II	A placement of ENF 3 or above, MTE 1-3
HCT 110	Therapeutic Communication	A placement of ENF 2 or above
HIS --	All HIS courses	A placement of ENF 3 or above
HIM --	All HIM courses	A placement of ENF 3 or above
HLT 100	First Aid and Cardio-Pulmonary Resuscitation	A placement of ENF 3 or above
HLT 106	First Aid and Safety	A placement of ENF 3 or above
HLT 116	Introduction to Personal Wellness Concepts	A placement of ENF 3 or above
HLT 143	Medical Terminology I	A placement of ENF 3 or above
HLT 180	Therapeutic Massage I	A placement of ENF 3 or above
HLT 230	Principles of Nutrition and Human Development	A placement of ENF 3 or above
HLT 261	Basic Pharmacy	A placement of ENF 3 or above
HRI --	All HRI courses	A Placement of ENF 1 or above, MTE 1-3
HMS --	All HMS courses	A placement of ENF 3 or above
IND --	All IND courses	MTE 1-5
ITD, ITE, ITN, ITP	A Placement of ENF 2 or above, MTE 1-3	
LGL 115	Real Estate Law for Legal Assistants	A placement of ENF 3 or above
MKT --	All MKT courses	A placement of ENF 3 or above
MTH 120 MTH 103 MTH 126	Introduction to Mathematics Applied Technical Mathematics I Math for Allied Health	MTE 1-3, A Placement of ENF 2 or above
MTH 151-152 MTH 157	Mathematics for the Liberal Arts I-II Elementary Statistics	MTE 1-5, A Placement of ENF 3 or above
MTH 163-164 MTH 166 MTH 173-174 MTH 175	Precalculus I-II Precalculus with Trigonometry Calculus with Analytic Geometry, I-II Calculus on One Variable I-II Statistics	MTE 1-9, A Placement of ENF 3 or above
MTS --	All motorsports courses.	A placement of ENF 3 or above, MTE 1-3
MUS 121-122	Music Appreciation I-II	A placement of ENF 3 or above
NAS 106	Conservation of Natural Resources	A Placement of ENF 3 or above
NAS 150	Human Biology	A Placement of ENF 3 or above, College Prep BIO
NAS 195	Introduction to Earth Sciences	A Placement of ENF 3 or above

Course #	**Course Name**	**Developmental Requirement**
NUR 135	Drug Dosage Calculations	MTE 1-6
NUR 230	Pharmacology	A placement of ENF 3 or above
PHI --	All PHI courses	A placement of ENF 3 or above
PHY --	All PHY courses	MTE 1-9, A Placement of ENF 3 or above
PLS --	All PLS courses	A placement of ENF 3 or above
PSY --	All PSY courses	A placement of ENF 3 or above
REL --	All REL courses	A placement of ENF 3 or above
RPK --	All RPK courses	A placement of ENF 3 or above
SOC --	All SOC courses	A placement of ENF 3 or above
SPA --	All SPA courses	A placement of ENF 3 or above
SDV 199	Transitioning to the Senior Institution	A placement of ENF 3 or above

Electives

Students should choose from among the following electives to complete their program of study requirements.

General Transfer Electives (EEE EEE)

	Title	Credits
ACC 211	Accounting I	3.00
ACC 212	Accounting II	3.00
ARA 101	Beginning Arabic I	5.00
ARA 102	Beginning Arabic II	5.00
ART 101	History and Appreciation of Art I	3.00
ART 102	History and Appreciation of Art II	3.00
ART 121	Drawing I	3.00
ART 122	Drawing II	3.00
ART 241	Painting I	3.00
ART 242	Painting II	3.00
ART 283	Computer Graphics I	4.00
ART 284	Computer Graphics II	4.00
ASL 101	American Sign Language I	4.00
ASL 102	American Sign Language II	4.00
BIO 101	General Biology I	4.00
BIO 102	General Biology II	4.00
BIO 110	General Botany	4.00
BIO 120	General Zoology	4.00
BIO 205	General Microbiology	4.00
BIO 231	Human Anatomy & Physiology I	4.00
BIO 232	Human Anatomy & Physiology II	4.00
BIO 256	General Genetics	4.00
CHI 101	Beginning Chinese I	5.00
CHI 102	Beginning Chinese II	5.00
CHM 111	College Chemistry I	4.00
CHM 112	College Chemistry II	4.00
CHM 241	Organic Chemistry I	4.00
CHM 242	Organic Chemistry II	4.00
CSC 200	Introduction to Computing	3.00
CSC 201	Computer Science I	4.00
CSC 202	Computer Science II	4.00
CSC 205	Computer Organization	3.00
CST 130	Introduction to the Theatre	3.00
CST 131	Acting I	3.00
CST 132	Acting II	3.00
CST 136	Theatre Workshop	3.00
CST 227	Business and Professional Communication	3.00
CST 231	History of Theatre I	3.00
ECO 201	Principles of Macroeconomics	3.00
ECO 202	Principles of Microeconomics	3.00
EDU 200	Introduction to Teaching as a Profession	3.00
EDU 225	Audiovisual Materials and Computer Software	3.00
EDU 235	Health, Safety, and Nutritional Education	3.00
ENG 241	Survey of American Literature I	3.00
ENG 242	Survey of American Literature II	3.00
ENG 243	Survey of English Literature I	3.00
ENG 244	Survey English Literature II	3.00
ENG 250	Children's Literature	3.00
ENG 251	Survey of World Literature I	3.00
ENG 252	Survey of World Literature II	3.00
ENG 253	Survey African-American Lit I	3.00
ENG 254	Survey African-American Lit II	3.00
FRE 101	Beginning French I	5.00
FRE 102	Beginning French II	5.00
GEO 210	People and the Land: Intro to Cultural Geography	3.00
GER 101	Beginning German I	5.00
GER 102	Beginning German II	5.00
GOL 105	Physical Geology	4.00
GOL 106	Historical Geology	4.00
HIS 101	History of Western Civilization I	3.00
HIS 102	History of Western Civilization II	3.00
HIS 121	United States History I	3.00
HIS 122	United States History II	3.00
HIS 141	African American History I	3.00
HIS 142	African American History II	3.00
HIS 281	History of Virginia I	3.00
HLT 230	Principles of Nutrition and Human Development	3.00
ITE 119	Information Literacy	3.00
ITN 260	Network Security Basics	3.00
ITP 120	Java Programming I	4.00
ITP 220	Java Programming II	4.00
JPN 101	Beginning Japanese I	5.00
JPN102	Beginning Japanese II	5.00
MUS 111	Music Theory I	4.00
MUS 112	Music Theory II	4.00
MUS 121	Music Appreciation I	3.00
MUS 121	Music Appreciation I	3.00
PHI 101	Introduction to Philosophy I	3.00
PHI 220	Ethics	3.00
PHY 201	General College Physics I	4.00
PHY 202	General College Physics II	4.00
PHY 241	University Physics I	4.00
PHY 242	University Physics II	4.00
PLS 211	U.S. Government I	3.00
PLS 212	U.S. Government II	3.00
PSY 200	Principles of Psychology	3.00
PSY 215	Abnormal Psychology	3.00
PSY 216	Social Psychology	3.00
PSY 219	Cross-Cultural Psychology	3.00
PSY 230	Developmental Psychology	3.00
REL 200	Survey of the Old Testament	3.00
REL 210	Survey of the New Testament	3.00
REL 231	Religions of the World I	3.00
RPK 100	Introduction to Recreation, Parks, & Leisure Studies	3.00
RPK 135	Program Planning	3.00
RPK 141	Leadership and Supervision	3.00
RPK 146	Recreation Facilities Management & Design	3.00
RPK 152	Sports First Aid & Safety	1.00
RPK 201	Recreation & Parks Management	3.00
RPK 210	Principles and Psychology of Coaching	3.00
RPK 265	Risk Management	3.00
RUS 101	Beginning Russian I	5.00
RUS 102	Beginning Russian II	5.00
SOC 200	Principles of Sociology	3.00
SOC 215	Sociology of the Family	3.00
SOC 226	Human Sexuality	3.00
SOC 245	Sociology of Aging	3.00
SOC 268	Social Problems	3.00
SPA 101	Beginning Spanish I	5.00

English Literature Elective (ENG EEE)

ENG 241	Survey of American Literature	3.00
ENG 242	Survey of American Literature II	3.00
ENG 243	Survey of English Literature I	3.00
ENG 244	Survey of English Literature II	3.00
ENG 250	Children's Literature	3.00
ENG 251	Survey of World Literature I	3.00
ENG 252	Survey of World Literature II	3.00
ENG 253	Survey of African-American Lit I	3.00
ENG 254	Survey of African-American Lit II	3.00

Fine Arts Electives (ART EEE)

ART 101	History and Appreciation of Art I	3.00
ART 102	History and Appreciation of Art II	3.00
ART 121	Drawing I	3.00
ART 122	Drawing II	3.00
ART 241	Painting I	3.00
ART 242	Painting II	3.00
ART 283	Computer Graphics I	4.00
ART 284	Computer Graphics II	4.00
CST 130	Introduction to the Theatre	3.00
CST131	Acting I	3.00
CST 132	Acting II	3.00
CST 136	Theatre Workshop	3.00
CST 231	History of Theatre I	3.00
ENG 241	Survey of American Literature I	3.00
ENG 242	Survey of American Literature II	3.00

ENG 243	Survey of English Literature I	3.00
ENG 244	Survey English Literature II	3.00
ENG 250	Children's Literature	3.00
ENG 251	Survey of World Literature I	3.00
ENG 252	Survey of World Literature II	3.00
ENG 253	Survey African-American Lit I	3.00
ENG 254	Survey African-American Lit II	3.00
MUS 111	Music Theory I	4.00
MUS 112	Music Theory II	4.00
MUS 121	Music Appreciation I	3.00

Humanities Electives (HUM EEE)

ARA 101	Beginning Arabic I	5.00
ARA 102	Beginning Arabic II	5.00
ART 101	History and Appreciation of Art I	3.00
ART 101	History and Appreciation of Art II	3.00
ART 121	Drawing I	3.00
ART 122	Drawing II	3.00
ART 241	Painting I	3.00
ART 242	Painting II	3.00
ART 283	Computer Graphics I	4.00
ART 284	Computer Graphics II	4.00
ASL 101	American Sign Language I	4.00
ASL 102	American Sign Language II	4.00
CHI 101	Beginning Chinese I	5.00
CHI 102	Beginning Chinese II	5.00
CST 130	Introduction to the Theatre	3.00
CST 131	Acting I	3.00
CST 132	Acting II	3.00
CST 136	Theatre Workshop	3.00
CST 227	Business and Professional Communication	3.00
CST 231	History of Theatre I	3.00
ENG 241	Survey of American Literature I	3.00
ENG 242	Survey of American Literature II	3.00
ENG 243	Survey of English Literature I	3.00
ENG 244	Survey English Literature II	3.00
ENG 250	Children's Literature	3.00
ENG 251	Survey of World Literature I	3.00
ENG 252	Survey of World Literature II	3.00
ENG 253	Survey African-American Lit I	3.00
ENG 254	Survey African-American Lit II	3.00
FRE 101	Beginning French I	5.00
FRE 102	Beginning French II	5.00
GER 101	Beginning German I	5.00
GER 102	Beginning German II	5.00
JPN 101	Beginning Japanese I	5.00
JPN102	Beginning Japanese II	5.00
MUS 111	Music Theory I	4.00
MUS 112	Music Theory II	4.00
MUS 121	Music Appreciation I	3.00
PHI 101	Introduction to Philosophy I	3.00
PHI 220	Ethics	3.00
REL 200	Survey of the Old Testament	3.00
REL 210	Survey of the New Testament	3.00
REL 231	Religions of the World I	3.00
RUS 101	Beginning Russian I	5.00
RUS 102	Beginning Russian II	5.00
SPA 101	Beginning Spanish I	5.00
SPA 102	Beginning Spanish II	5.00

Information Technology Electives (ITE EEE)

CSC 201 Computer Science I	4.00
CSC 202 Computer Science II	4.00
CSC 205 Computer Organization	3.00
ITD 112 Web Page Graphics	3.00
ITD 210 Web Page Design II	3.00
ITN 155 Switching, Wireless, and WAN Technologies (ICND2) – Cisco	4.00
ITN 260 Network Security Basics	3.00
ITP 110 Visual Basic Programming	3.00
ITP 120 Java Programming I	4.00
ITP 220 Java Programming II	4.00

Lab Science Electives (NAS EEE)

BIO 101	General Biology I	4.00
BIO 102	General Biology II	4.00
BIO 110	General Botany	4.00
BIO 120	General Zoology	4.00
BIO 205	General Microbiology	4.00
BIO 231	Human Anatomy & Physiology I	4.00
BIO 232	Human Anatomy & Physiology II	4.00
BIO 256	General Genetics	4.00
CHM 111	College Chemistry I	4.00
CHM 112	College Chemistry II	4.00
CHM 241	Organic Chemistry I	4.00
CHM 242	Organic Chemistry II	4.00
ENV 100	Basic Environmental Science	3.00
GOL 105	Physical Geology	4.00
GOL 106	Historical Geology	4.00
NAS 150	Human Biology	3.00
PHY 201	General College Physics I	4.00
PHY 202	General College Physics II	4.00
PHY 241	University Physics I	4.00
PHY 242	University Physics II	4.00

Mathematics Electives (MTH EEE)

MTH 151	Mathematics for the Liberal Arts I	3.00
MTH 152	Mathematics for the Liberal Arts II	3.00
MTH 157	Elementary Statistics	3.00
MTH 163	Precalculus	3.00
MTH 166	Precalculus with Trigonometry	4.00
MTH 173	Calculus with Analytic Geometry I	4.00
MTH 174	Calculus with Analytic Geometry II	4.00
MTH 175	Calculus of One Variable I	3.00
MTH 176	Calculus of One Variable II	3.00
MTH 177	Introductory Linear Algebra	2.00
MTH 178	Topics in Analytical Geometry	2.00
MTH 241	Statistics I	3.00
MTH 271	Applied Calculus I	3.00
MTH 273	Calculus I	4.00
MTH 274	Calculus II	4.00

Social Science Electives (SOC EEE)

ECO 201	Principles of Macroeconomics	3.00
ECO 202	Principles of Microeconomics	3.00
GEO 210	People and the Land: Intro to Cultural Geography	3.00
HIS 101	History of Western Civilization I	3.00
HIS 102	History of Western Civilization II	3.00
HIS 121	United States History I	3.00
HIS 122	United States History II	3.00
HIS 141	African American History I	3.00
HIS 142	African American History II	3.00
HIS 281	History of Virginia I	3.00
PLS 211	U.S. Government I	3.00
PLS 212	U.S. Government II	3.00
PSY 200	Principles of Psychology	3.00
PSY 215	Abnormal Psychology	3.00
PSY 216	Social Psychology	3.00
PSY 219	Cross-Cultural Psychology	3.00
PSY 230	Developmental Psychology	3.00
SOC 200	Principles of Sociology	3.00
SOC 215	Sociology of the Family	3.00
SOC 226	Human Sexuality	3.00
SOC 245	Sociology of Aging	3.00
SOC 268	Social Problems	3.00

Physical Education/Wellness Electives (PED EEE)

HLT 100	First Aid and Cardiopulmonary Resuscitation	2.00
HLT 105	Cardiopulmonary Resuscitation	1.00
HLT 106	First Aid and Safety	2.00
HLT 109	CPR Certification	1.00
HLT 110	Concepts of Personal and Community Healthy	3.00
HLT 116	Introduction to Personal Wellness Concepts	3.00

HLT 138	Principles of Nutrition and Human Development	1.00
HLT 141	Introduction to Medical Terminology	1.00
HLT 143	Medical Terminology	3.00
HLT 220	Concepts of Disease	3.00
HLT 230	Principles of Nutrition and Human Development	3.00
PED 101	Fundamentals of Physical Activity I	1.00
PED 102	Fundamentals of Physical Activity II	1.00
PED 103	Aerobic Fitness I	1.00
PED 104	Aerobic Fitness II	1.00
PED 105	Aerobic Dance I	1.00
PED 107	Exercise and Nutrition I	1.00
PED 108	Exercise and Nutrition II	1.00
PED 110	Zumba	1.00
PED 111	Weight Training I	1.00
PED 112	Weight Training II	1.00
PED 118	Baseball Fundamentals I	1.00
PED 119	Baseball Fundamentals II	1.00
PED 120	Yoga II	1.00
PED 123	Tennis I	1.00
PED 124	Tennis II	1.00
PED 129	Self-Defense	1.00
PED 133	Golf I	1.00
PED 134	Golf II	1.00
PED 135	Bowling I	1.00
PED 138	Martial Arts II	1.00
PED 150	Soccer	1.00
PED 152	Basketball	1.00
PED 156	Softball	1.00
PED 127	Soccer	1.00
PED 163	Jazz I	1.00
PED 260	Sports Appreciation	2.00
PED 210	Introduction to Physical Education and Health	3.00
PED 220	Adult Health and Development	3.00

Course Descriptions

This section of the catalog describes each of the courses listed in college programs or which may be offered as electives. Not all of the courses will be offered during an academic year. Those provided as a service to business and industry will be offered as needed and when sufficient numbers of students enroll. Other courses may be offered which are not included in this section but are included in the VCCS Curriculum Guide.

Course Numbers

Courses numbered 01-09 are courses for developmental education. Students may re--register for these courses in two subsequent semesters to complete course objectives. Students need administrative approval to re-enroll in developmental courses for a third time. Courses numbered 10-99 are freshman level courses for certificate programs. Credits earned in these courses are not applicable toward associate degree programs; however, upon approval of the vice president of academic and student development services, some courses may provide credit applicable to certificate programs. Courses numbered 100-199 are freshman level courses applicable toward the associate degree, diploma and certificate programs. Courses numbered 200-299 are sophomore level courses applicable toward the associate degree, diploma and certificate programs.

Course Co-requisites

Co-requisites are two courses that must be taken during the same semester or period of enrollment. If any co-requisites are required, these co-requisites will be identified in the course description and are usually noted in the printed class schedule.

Course Prerequisites

If any prerequisites are required before enrolling in a course, these prerequisites will be identified in the course description. Prerequisites or their equivalent must be completed satisfactorily before enrolling in a course unless special permission to enroll is obtained from the division chair and the instructor.

General Usage Courses

XXX 90, 190, 290 COORDINATED INTERNSHIP --- (1-5 cr.) Supervises on-the- job training in selected business, industrial or service firms coordinated by the college. Credit/Practice ratio maximum 1:5 hours. May be repeated for credit. Variable hours.

XXX 95, 195, 295 TOPICS IN --- (1-5 cr.) Provides an opportunity to explore topical areas of interest to or needed by students. May be used also for special honors courses. May be repeated for credit. Variable hours.

XXX 96, 196, 296 ON-SITE TRAINING--- (1-5 cr.) Specializes in career orientation and training program without pay in selected businesses and industry, supervised and coordinated by the college. Credit/Practice ratio maximum 1:5 hours. May be repeated for credit. Variable hours.

XXX 97, 197, 297 COOPERATIVE EDUCATION --- (1-5 cr.) Supervised on-the- job training for pay in approved business, industrial and service firms, coordinated by the college's cooperative education office. Applicable to all occupational/ technical curricula at the discretion of the college. Credit/ Work ratio not to exceed 1:5 hours. May be repeated for credit. Variable hours.

XXX 98, 198, 298 SEMINAR AND PROJECT --- (1-5 cr.) Requires completion of a project or research report related to the student's occupational objective and a study of approaches to the selection and pursuit of career opportunities in the field. May be repeated for credit. Variable hours.

XXX 99, 199, 299 SUPERVISED STUDY --- (1-5 cr.) Assigns problems for independent study incorporating previous instruction and supervised by the instructor. May be repeated for credit. Variable hours. Prerequisite for ACC 299, ADJ 299, AST 299, BUS 299. EMS 299, ITE 299, and MTS 299 is completion of 45 semester hours in program of study.

ACCOUNTING (ACC)

ACC 124 PAYROLL ACCOUNTING (3 cr.) Presents accounting systems and methods used in computing and recording payroll to include payroll taxes and compliance with federal and state legislation. Lecture 3 hours per week. Prerequisites: ENF 3 or above, MTE 1-2.

ACC 134 SMALL BUSINESS TAXES (3 cr.) Introduces taxes most frequently encountered in business. Includes payroll, sales, property, and income tax. Lecture 3 hours per week.

ACC 211 PRINCIPLES OF ACCOUNTING I (3 cr.) Presents accounting principles/application to various businesses. Covers the accounting cycle, income determination, and financial reporting. A laboratory co-requisite (ACC 213) may be required as identified by the college. Lecture 3 hours per week. Prerequisites: ENF 3 or above, MTE 1-2.

ACC 212 PRINCIPLES OF ACCOUNTING II (3 cr.) Emphasizes partnerships, corporations and the study of financial analysis. Includes and introduces cost/managerial accounting concepts. Co- requisite (ACC 214) may be required. Prerequisite: ACC 211. Lecture 3 hours per week.

ACC 215 COMPUTERIZED ACCOUNTING (3 cr.) Introduces the computer in solving accounting problems. Focuses on operation of computers. Presents the accounting cycle and financial statement preparation in a computerized system and other applications for financial and managerial accounting. Prerequisite or co-requisite ACC 211 or equivalent. Lecture 3 hours per week.

ACC 221 INTERMEDIATE ACCOUNTING I (3 cr.) Covers accounting principles and theory, including a review of the accounting cycle and accounting for current assets, current liabilities and investments. Introduces various accounting approaches and demonstrates the effect of these approaches on the financial statement users. Prerequisite ACC 212 or equivalent. Lecture 3 hours per week.

ACC 222 INTERMEDIATE ACCOUNTING II (3 cr.) Continues accounting principles and theory with emphasis on accounting for fixed assets, intangibles, corporate capital structure, long-term liabilities, and investments. Prerequisite ACC 212 or equivalent. Lecture 3 hours per week.

ACC 231 COST ACCOUNTING I (3 cr.) Studies cost accounting methods and reporting as applied to job order, process, and standard cost accounting systems. Includes cost control and other topics. Prerequisite ACC 212 or equivalent. Lecture 3 hours per week.

ACC 261 PRINCIPLES OF FEDERAL TAXATION I (3 cr.) Presents the study of federal taxation as it relates to individuals and related entities. Includes tax planning, compliance and reporting. Lecture 3 hours per week. Prerequisite: ENF 3 or above, MTE 1-2.

ADMINISTRATION OF JUSTICE (ADJ)

ADJ 100 SURVEY OF CRIMINAL JUSTICE (3 cr.) Presents an overview of the United States criminal justice system; introduces the major system components--law enforcement, judiciary, and corrections. Lecture 3 hours per week. Prerequisites: A placement of ENF 2 or above.

ADJ 105 THE JUVENILE JUSTICE SYSTEM (3 cr.) Presents the evolution, philosophy, structures and processes of the American juvenile delinquency system; surveys the rights of juveniles, dispositional alternatives, rehabilitation methods and current trends. Lecture 3 hours per week. Prerequisites: A placement of ENF 2 or above.

ADJ 111 LAW ENFORCEMENT ORGANIZATION & ADMINISTRATION I (3 cr.) Teaches the principles of organization and administration of law enforcement agencies. Studies the management of line operations, staff and auxiliary services, investigative and juvenile units. Introduces the concept of data processing; examines policies, procedures, rules, and regulations pertaining to crime prevention. Surveys concepts of protection of life and property, detection of offenses, and apprehension of offenders. Part I of II. Lecture 3 hours per week.

ADJ 112 LAW ENFORCEMENT ORGANIZATION & ADMINISTRATION II (3 cr.) Teaches the principles of organization and administration of law enforcement agencies. Studies the management of line operations, staff and auxiliary services, investigative and juvenile units. Introduces the concept of data processing; examines policies, procedures, rules, and regulations pertaining to crime prevention. Surveys concepts of protection of life and property, detection of offenses, and apprehension of offenders. Part II of II. Lecture 3 hours per week. Prerequisite: divisional approval or ADJ 111.

ADJ 130 INTRODUCTION TO CRIMINAL LAW (3 cr.) Surveys the general principals of American criminal law, the elements of major crimes, and the basic steps of prosecution procedure. Lecture 3 hours per week. Prerequisites: All Developmental English requirements met, and ADJ 131.

ADJ 131 LEGAL EVIDENCE (3 cr.) Surveys the identification, degrees, and admissibility of evidence for criminal prosecution; examines pre-trial and trial procedures as they pertain to the rules of evidence. Lecture 3 hours per week. Prerequisites: All Developmental English requirements met, ADJ 100, ADJ 105, ADJ 107, ADJ 111, ADJ 146, ADJ 228, and MTE 1-3.

ADJ 140 INTRODUCTION TO CORRECTIONS (3 cr.) Focuses on societal responses to the offender.

Traces the evolution of practices based on philosophies of retribution, deterrence, and rehabilitation. Reviews contemporary correctional activities and their relationships to other aspects of the criminal justice system. Lecture 3 hours per week. Prerequisites: A placement of ENF 2 or above.

ADJ 145 CORRECTIONS AND THE COMMUNITY (3 cr.) Studies and evaluates the relationships and interactions between correctional organizations and free society. Focuses on the shared responsibility of the community and corrections agencies to develop effective programs for management and treatment of criminal offenders. Lecture 3 hours per week. Prerequisites: A placement of ENF 2 or above.

ADJ 146 ADULT CORRECTIONAL INSTITUTIONS (3 cr.) Describes the structures, function, and goals of state and federal correctional institutions (prisons, farms, community-based units, etc.) for adult inmates. Lecture 3 hours per week. Prerequisites: A placement of ENF 2 or above.

ADJ 201 CRIMINOLOGY (3 cr.) Studies current and historical data pertaining to criminal and other deviant behavior. Examines theories that explain crime and criminal behavior in human society. Lecture 3 hours per week. Prerequisites: A placement of ENF 2 or above.

ADJ 228 NARCOTICS AND DANGEROUS DRUGS (3 cr.) Surveys the historical and current usage of narcotics and dangerous drugs. Teaches the identification and classification of such drugs and emphasizes the symptoms and effects on their users. Examines investigative methods and procedures utilized in law enforcement efforts against illicit drug usage. Lecture 3 hours per week.

ADJ 234 TERRORISM AND COUNTER- TERRORISM (3 cr.) Surveys the historical and current practices of terrorism that are national, transnational, or domestic in origin. Includes biological, chemical, nuclear, and cyber-terrorism. Teaches the identification and classification of terrorist organizations, violent political groups and issue-oriented militant movements. Examines investigative methods and procedures utilized in counter terrorist efforts domestically and internationally. Prerequisites: ADJ 100, ADJ 107. (May be used as an elective). Lecture 3 hours per week.

ADJ 236 PRINCIPLES OF CRIMINAL INVESTIGATION (3 cr.) Surveys the fundamentals of criminal investigation procedures and techniques. Examines crime scene search, collecting, handling and preserving of evidence. Lecture 3 hours per week. Prerequisite: ADJ 130.

ADJ 237 ADVANCED CRIMINAL INVESTIGATION (3 cr.) Introduces specialized tools and scientific aids used in criminal investigation. Applies investigative techniques to specific situations and preparation of trial evidence. Prerequisite ADJ 236 or division approval. Lecture 3 hours per week. Prerequisite: ADJ 236.

ADJ 280 CAPSTONE PROJECT (1 cr.)
Provides a capstone research project for the final semester of the program, focusing inquiry upon an area of interest to the student or area relevant to the student's prospective career field. May include problem based research topics, internships, or other focused projects. Lecture 1 hour per week. Co-requisite: ADJ 236 or equivalent.

AGRICULTURE (AGR)

AGR 141- INTRODUCTION TO ANIMAL SCIENCE AND TECHNOLOGY (4 cr.) Introduction to the science and technology involved in sustainable animal production and management practices. Beef, sheep, horses, dairy, swine, goats, and poultry included with emphasis on practical experiences in laboratory and farm settings. Lecture 3 hours. Laboratory 2 hours per week. Total 5 hours per week. Prerequisite: ENF 3 or above.

AGR 142 – INTRODUCTION TO PLANT SCIENCE AND TECHNOLOGY (3 cr.) To introduce students to plant science, ecology, plant morphology, plant and soil relations and energy conversions. Students will survey agricultural crops and their importance to the economy. Lecture 2 hours. Laboratory 2 hours per week. Total 4 hours per week. Prerequisite: ENF 3 or above.

AGR 143 - INTRODUCTION TO AGRIBUSINESS AND FINANCIAL MANAGEMENT (3 cr.) Introduction to agriculture's importance to society and ways to start a farm or agribusiness. Evaluate forms of business including cooperatives and create financial statements and reports necessary for routine accounting and tax preparation. Decision making using financial tools including budgets and time value of money. Explore retirement, transition planning, personal financial management, and capital acquisition techniques. Lecture 2 hours. Laboratory 2 hours per week. Total 4hours per week. Prerequisite: ENF 3 or above.

AGR 144 - AGRICULTURE HUMAN RESOURCE MANAGEMENT (3 cr.) Principles and management practices utilized to attract, retain and motivate agricultural employees. Emphasis will be placed on interviewing techniques, employer/ employee relationships, motivation theory, legal issues, safety, and environmental concerns. Team building and interpersonal skills are developed through activities and cases. Diversity and cultural differences are explored as they apply to human resource compliance and performance issues. Lecture 3 hours. Total 3 hours per week. Prerequisite: ENF 3 or above.

AGR 205 – SOIL FERTILITY AND MANAGEMENT (3 cr.) Studies the factors influencing soil productivity with emphasis upon fertilizer materials from production to application. Discusses time, sources, and soil acidity. Presents soil testing techniques, interpretation of soil tests, and the addition of nutrients to correct or prevent deficiencies. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week. Prerequisite: ENF 3 or above.

AGR 231 - AGRIBUSINESS MARKETING, RISK MANAGEMENT, AND ENTREPRENEURSHIP (3 cr.)
Marketing techniques required to create an effective marketing plan addressing product, price, place, promotion, and people considerations of an agribusiness. Emphasis on unique aspects of agricultural products and risk management including price fluctuations and biosecurity. Student projects explore entrepreneurship and create marketing plans for a proposed farm or agribusiness. Lecture 3 hours. Total 3 hours per week. Prerequisite: ENF 3 or above.

AGR 232 - PROFESSIONAL SELLING FOR AGRIBUSINESS (3 cr.) Explore sales and marketing careers in the agricultural industry. Analyze customer's personality profile and needs to formulate an effective value-based sales presentation. Psychology of personality styles, buyer motivation, and conflict resolution is considered. Students research agricultural customer and product to make a realistic sales call with actual sales professionals. Lecture 3 hours. Total 3 hours per week. Prerequisite: ENF 3 or above.

AGR 233 - FOOD PRODUCTION, SAFETY, BIOSECURITY, AND QUALITY CONTROL (3 cr.)
Explore food production practices and their influence on food product quality, nutrition, and safety. Develop biosecurity and quality control practices including analytical methods for tracking and reporting. Included agricultural topics of equipment, packaging, laws, regulations, standards, and financial sources for on-farm and small-scale processing. Lecture 3 hours. Total 3 hours per week. Prerequisite: ENF 3 or above.

AGR 234 - CHEMICAL APPLICATION AND PEST MANAGEMENT (3 cr.) Proper application of pesticides and other agricultural chemicals used in landscape and turf management and in production agriculture; including application methods, equipment calibration and configuration, occupational health and safety, and pesticide laws and regulations. Lecture 3 hours. Total 3 hours per week. Prerequisite: ENF 3 or above.

AGR 241 - AGRICULTURAL POLICY, LEADERSHIP, & PROFESSIONAL SERVICE (3 cr.) Enhance personal and professional leadership skills to build consensus and collaboratively solve agricultural issues. Track agricultural issues impacted by the Virginia legislative process. Explore membership, professional service, and leadership opportunities in agricultural organizations and ways to influence the legislative process. Reinforce written and oral communications skills. . Lecture 3 hours. Total 3 hours per week. Prerequisite: ENF 3 or above.

AGR 242 - ANIMAL PRODUCTION, PRODUCTS AND EMERGING TECHNOLOGIES (3 cr.) Manage production and marketing of livestock enterprises including cattle, swine, sheep, poultry, goats, fish and other specialty animal enterprises. Principles of nutrition, reproduction, economics, and breeding and selection as well as opportunities for diversifying income on small to medium size operations are emphasized. Lecture 3 hours. Total 3 hours per week. Prerequisite: ENF 3 or above.

AGR 244 - AGRICULTURAL ALTERNATIVE ENERGY SOLUTIONS (3 cr.) Explore agricultural and other renewable energy solutions capable of reducing farm and agribusiness reliance on external energy production and increase profitability by diversifying income through energy production enterprises. Basic electrical and chemical concepts are introduced as well as energy conservation techniques. Lecture 3 hours. Total 3 hours per week. Prerequisite: ENF 3 or above.

AIR CONDITIONING, HEATING, VENTILATION, & REFRIGERATION (AIR)

AIR 117 METAL LAYOUT I (3 cr.) Presents measuring and gauging of sheet metal, types of metal, handling sheet metal, cutting and bending, layout.

Teaches fundamentals of drafting, basic drawing instruments, lettering practices. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week. Prerequisites: A placement of ENF 2 or above and MTE 1-3.

AIR 121 - AIR CONDITIONING AND REFRIGERATION I (4 cr.) Studies refrigeration theory, characteristics of refrigerants, temperature, and pressure, tools and equipment, soldering, brazing, refrigeration systems, system components, compressors, evaporators, metering devices. Presents charging and evaluation of systems and leak detection. Explores servicing the basic system. Explains use and care of oils and additives and trouble-shooting of small commercial systems. Lecture 3 hours. Laboratory 2 hours. Total 5 hours per week. Prerequisites: A placement of ENF 2 or above and MTE 1-3.

AIR 134 CIRCUITS AND CONTROLS I (4 cr.) Presents circuit diagrams for air conditioning units, reading and drawing of circuit diagrams, types of electrical controls. Includes analysis of air conditioning circuits, components, analysis and characteristics of circuits and controls, testing and servicing. Introduces electricity for air conditioning which includes circuit elements, direct current circuits and motors, single and three-phase circuits and motors, power distribution systems, and protective devices. Studies the electron and its behavior in passive and active circuits and components. Demonstrates electronic components and circuits as applied to air conditioning system. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

AIR 154 HEATING SYSTEMS I (3 cr.) Introduces types of fuels and their characteristics of combustion; types, components and characteristics of burners, and burner efficiency analyzers. Studies forced air heating systems including troubleshooting, preventive maintenance and servicing. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

AIR 190 COORDINATED INTERNSHIP (1 cr.) Supervises on-the-job training in selected business, industrial or service firms coordinated by the college. Credit/practice ratio not to exceed 1:5 hours. May be repeated for credit. Prerequisites: AIR 121, AIR 134, AIR 235.

AIR 235 HEAT PUMPS (3 cr.) Studies theory and operation of reverse cycle refrigeration including supplementary heat as applied to heat pump systems, including service, installation and maintenance. Lecture 2 hours. Laboratory 2hours. Total 4 hours per week.

AIR 238 ADVANCED TROUBLESHOOTING AND SERVICE (3 cr.) Presents advanced service techniques on wide variety of equipment used in refrigeration, air conditioning, and phases of heating and ventilation and controls. Lecture 2 hours. Laboratory 2 hours. Total 4-6 hours per week. Prerequisite AIR 121, AIR 134, AIR 154 & AIR 235.

AIR 253 - AIR CONDITIONING SYSTEMS III (3 cr.) Presents air balancing including taking duct pressure readings, finding register and grille CFM's, fans, laws and their applications. Explores instruments used for air balancing and proper procedures. Studies water-cooled and air- cooled condensers, refrigerant piping design, capacity control, air washers, water and steam piping arrangements. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

ARABIC (ARA)

ARA 101 - BEGINNING ARABIC (5 cr.) Introduces understanding, speaking, reading, and writing skills and emphasizes basic Arabic sentence structure. Discusses the diversity of cultures in the Arab world. Part I of II. Lecture 4-5 hours per week.

ARA 102 - BEGINNING ARABIC II (5 cr.) Introduces understanding, speaking, reading, and writing skills and emphasizes basic Arabic sentence structure. Discusses the diversity of cultures in the Arab world. Part II of II. Lecture 4-5 hours per week.

ARTS (ART)

ART 101 HISTORY AND APPRECIATION OF ART I (3 cr.) Presents the history and interpretation of architecture, sculpture, and painting. Begins with prehistoric art and follows the development of western civilization to the present. Part I of II. Lecture 3 hours per week. Prerequisite: ENF 3 or above. May be taken out of sequence.

ART 102 HISTORY AND APPRECIATION OF ART II (3 cr.) Presents the history and interpretation of architecture, sculpture, and painting. Begins with prehistoric art and follows the development of western civilization to the present. Part II of II. Lecture 3 hours per week. Prerequisite: ENF 3 or above. May be taken out of sequence.

ART 121 DRAWING I (3 cr.) Develops basic drawing skills and understanding of visual language through studio instruction/lecture. Introduces concepts such as proportion, space, perspective, tone and composition as applied to still life, landscape and the figure. Uses drawing media such as pencil, charcoal, ink wash and color media. Includes field trips and gallery assignments as appropriate. Part I of II. Lecture 1 hour. Studio instruction 4 hours. Total 5 hours per week.

ART 122 DRAWING II (3 cr.) Develops basic drawing skills and understanding of visual language through studio instruction/lecture. Introduces concepts such as proportion, space, perspective, tone and composition as applied to still life, landscape and the figure. Uses drawing media such as pencil, charcoal, ink wash and color media. Includes field trips and gallery assignments as appropriate. Part II of II. Lecture 1 hour. Studio instruction 4 hours. Total 5 hours per week.

ART 241 PAINTING I (3-4 cr.) Introduces abstract and representational painting in acrylic and/or oil with emphasis on color composition and value. Prerequisites ART 122 or divisional approval. Part I of II. Lecture 1 hour. Studio instruction 4 hours. Total 5-hours per week.

ART 242 PAINTING II (3 cr.) Introduces abstract and representational painting in acrylic and/or oil with emphasis on color composition and value. Prerequisites: ART 241 or divisional approval. Part II of II. Lecture 1 hour. Studio instruction 4 hours. Total 5 hours per week.

ART 283 COMPUTER GRAPHICS I (4 cr.) Utilizes microcomputers and software to produce computer graphics. Employs techniques learned to solve studio projects which reinforce instruction and are appropriate for portfolio use. Prerequisites: ITE 115 or ITE 119. Part I of II. Lecture 2 hours. Studio instruction 4 hours. Total 6 hours per week.

ART 284 COMPUTER GRAPHICS II (4 cr.) Utilizes microcomputers and software to produce computer graphics. Employs techniques learned to solve studio projects which reinforce instruction and are appropriate for portfolio use. Prerequisites: ITE 115 or ITE 119. Part II of II. Lecture 2 hours. Studio instruction 4 hours. Total 6 hours per week.

AMERICAN SIGN LANGUAGE (ASL)

ASL 101 AMERICAN SIGN LANGUAGE I (4 cr.) Introduces the fundamentals of American Sign Language (ASL) used by the Deaf Community, including basic vocabulary, syntax, finger-spelling, and grammatical non-manual signals. Focuses on communicative competence. Develops gestural skills as a foundation for ASL enhancement. Introduces cultural knowledge and increases understanding of The Deaf Community. Part I of II. Lecture 3 hours. Laboratory 2 hours. Total 4 hours per week.

ASL 102 AMERICAN SIGN LANGUAGE II (4 cr.) Introduces the fundamentals of American Sign Language (ASL) used by the Deaf Community, including basic vocabulary, syntax, fingerspelling, and grammatical non-manual signals. Focuses on communicative competence. Develops gestural skills as a foundation for ASL enhancement. Introduces cultural knowledge and increases understanding of the Deaf Community. Part II of II. Lecture 3 hours. Laboratory 2 hours. Total 4 hours per week.

ADMINISTRATIVE SUPPORT TECHNOLOGY (AST)

AST 101 KEYBOARDING I (3 cr.) Teaches the alpha/numeric keyboard with emphasis on correct techniques, speed, and accuracy. Teaches formatting of basic personal and business correspondence, reports, and tabulation. A laboratory co-requisite (AST 103) may be required. Lecture 3 hours per week. Prerequisite: ENF 3 or above.

AST 102 KEYBOARDING II (3 cr.) Develops keyboarding and document production skills with emphasis on preparation of specialized business documents. Continues skill-building for speed and accuracy. Prerequisite AST 101. A laboratory co-requisite (AST 104) may be required. Lecture 3 hours per week.

AST 117 KEYBOARDING FOR COMPUTER USAGE (1 cr.) Teaches the alphabetic keyboard and 10-key pad. Develops correct keying techniques. Lecture 1 hour per week.

AST 141 WORD PROCESSING (SPECIFY SOFTWARE) (3 cr.) Teaches creating and editing documents, including line and page layouts, columns, fonts, search/replace, cut/paste, spell/thesaurus, and advanced editing and formatting features of word processing software. Prerequisite AST 101 or equivalent. A laboratory co-requisite (AST 144) may be required. Lecture 3 hours per week. Prerequisite: ITE 115.

AST 154 VOICE RECOGNITION APPLICATIONS (SPECIFY SOFTWARE) (1 cr.) Teaches the computer user to use the voice as an input device to compose

documents and to give commands directly to the computer. Lecture 1 hour per week.

AST 171 INTRODUCTION TO CALL CENTER SERVICES (3 cr.) Introduces concepts and skills needed to be an effective customer service representative for a telephone service operation. Covers call center theory and technology, interpersonal communication skills, customer relations attitudes, telecommunications techniques, and professional procedures to handle a variety of customer service sales requests. Lecture 3 hours per week.

AST 238 WORD PROCESSING ADVANCED OPERATIONS (3 cr.) Teaches advanced word processing features including working with merge files, macros, and graphics; develops competence in the production of complex documents. A laboratory co-requisite (AST 239) may be required. Lecture 3 hours per week. Prerequisite: AST 102, AST 141, ITE 115.

AST 243 - OFFICE ADMINISTRATION I (3 cr.)
Develops an understanding of the administrative support role and the skills necessary to provide organizational and technical support in a contemporary office setting. Emphasizes the development of critical-thinking, problem-solving, and job performance skills in a business office environment. Prerequisite AST 101.
Lecture 3 hours per week.

AST 244 OFFICE ADMINISTRATION II (3 cr.)
Enhances skills necessary to provide organizational and technical support in a contemporary office setting. Emphasizes administrative and supervisory role of the office professional. Includes travel and meeting planning, office budgeting and financial procedures, international issues, and career development. Prerequisite AST 243 or equivalent. Lecture 3 hours per week.

AST 245 MEDICAL MACHINE TRANSCRIPTION (3 cr.)
Develops machine transcription skills, integrating operation of transcribing equipment with understanding of medical terminology. Emphasizes dictation techniques and accurate transcription of medical documents in prescribed formats. Prerequisite AST 102 or equivalent. A laboratory co-requisite (AST 246) may be required. Lecture 3 hours per week. Prerequisite: HLT 143.

AST 260 PRESENTATION SOFTWARE (SPECIFY SOFTWARE) (3 cr.) Teaches creation of slides including use of text, clip art, and graphs. Includes techniques for enhancing presentations with on-screen slide show as well as printing to transparencies and hand-outs. Incorporates use of sound and video clips. A laboratory co-requisite (AST 261) may be required. Lecture 3 hours per week. Prerequisite: ENF 3 or above. ITE 115.

AST 271 MEDICAL OFFICE PROCEDURES I (3 cr.)
Covers medical office procedures, records management, preparation of medical reports, and other medical documents. Co-requisite AST 102 or equivalent. Lecture 3 hours per week.

AUTO BODY (AUB)

AUB 106 BASIC SHEET METAL OPERATIONS (4 cr.)
Teaches the use of metal straightening tools, basic straightening operations, shrinking, filling, sheet metal damage and repair procedures. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

AUB 116 AUTO BODY REPAIR (4 cr.) Teaches collision straightening procedures and use of equipment, planning repair procedures, disassembly techniques, body fastening systems, glass removal and replacement and panel repair and alignment. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

AUB 118 AUTOMOTIVE PAINT PREPARATION (4 cr.) Teaches auto body preparation for painting, using the materials, processes, and equipment required to prepare metal and old finishes. Includes sanding, cleaning, solvents, special materials, fillers and primers. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

AUB 119 AUTOMOTIVE PAINTING (4 cr.) Teaches theory and application of painting and the use of painting equipment and materials including paints, thinners, primers, rubbing compounds and cleaners. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

AUB 290 COORDINATED INTERNSHIP (3 cr.)
Supervises on-the-job training in selected business, industrial or service firms coordinated by the college. Credit/practice ratio not to exceed 1:5 hours. May be repeated for credit.

AUTOMOTIVE (AUT)

AUT 109 APPLIED MATHEMATICS FOR AUTOMOTIVE TECHNICIANS (3 cr.) Introduces arithmetic skills, conversion of units, consumer mathematics, solution of linear algebraic expression, and the solving of applied problems in torque, horse-power, piston displacement. Lecture 3 hours per week.

AUT 111 AUTOMOTIVE ENGINES I (3 cr.) Presents analysis of power, cylinder condition, valves and bearings in the automotive engine to establish the present condition, repairs or adjustments. Part I of II. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week. Prerequisites: A placement of ENF 2 or above and MTE 1-3.

AUT 112 AUTOMOTIVE ENGINES II (3 cr) Presents analysis of power, cylinder condition, valves and bearings in the automotive engine to establish the present condition, repairs or adjustments. Part II of II. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week. Prerequisites: A placement of ENF 2 or above and MTE 1-3.

AUT 113 CYLINDER BLOCK SERVICE I (3 cr.) Studies basic cylinder block reconditioning, including boring, re-sleeving, line-boring and deck resurfacing. Includes repair techniques for damaged block and cylinder head castings to include cold welding, brazing, welding and epoxy. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week. Prerequisites: A placement of ENF 2 or above and MTE 1-3.

AUT 114 CYLINDER HEAD SERVICE II (3 cr.) Studies cylinder head reconditioning, including valve seat grinding, re-facing valves, servicing valve guides, valve seat inserts, cutting for valve seals and spring, thread repair and resurfacing mating surfaces. Prerequisite AUT 113. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

AUT 120 INTRODUCTION TO AUTOMOTIVE MACHINE SHOP (3 cr.) Introduces automotive machining operations emphasizing shop safety and the safe use of machine shop tools. Surveys basic machining operations and specialized auto machining techniques necessary for reconditioning engine and chassis components. Requires basic set of machinist's hand tools. Prerequisite or co- requisite for all other machinist courses. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week. Prerequisites: A placement of ENF 2 or above and MTE 1-3.

AUT 121 AUTOMOTIVE FUEL SYSTEMS I (3 cr.)
Analyses major domestic and foreign automotive fuel systems to include carburetors and fuel injection systems. Includes detailed inspection and discussion of fuel tanks, connecting lines, instruments, filters, fuel pumps, superchargers, and turbo charger. Also includes complete diagnosis, troubleshooting, overhaul and factory adjustment procedures of all major carbureted and fuel injection systems. Lecture 3 hours. Total 3 hours per week.

AUT 125 ANTI-POLLUTION SYSTEMS (3 cr.) Studies various anti-pollution systems used on modern automobiles, installation, inspection, repair and service. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

AUT 161 AUTOMOTIVE DIAGNOSIS I (3 cr.)
Introduces principles of automotive maintenance using modern diagnostic methods. Uses theory and laboratory experiments designed to explain and illustrate scientific basis of modern electronic and mechanical diagnostic procedures. Part I of II. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week. Prerequisites: ENF 3 or above. MTE 1-3.

AUT 162 AUTOMOTIVE DIAGNOSIS II (3 cr.)
Introduces principles of automotive maintenance using modern diagnostic methods. Uses theory and laboratory experiments designed to explain and illustrate scientific basis of modern electronic and mechanical diagnostic procedures. Part II of II. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week. Prerequisites: A placement of ENF 2 or above and MTE 1-3.

AUT 165 AUTO DIAGNOSIS AND TUNE-UP (2 cr.)
Presents the techniques for diagnosis of malfunctions in systems of the automobile. Uses dynamometers, oscilloscopes and other specialized diagnostic and testing equipment. Demonstrates tune-up of conventional and rotary engines. Lecture 1 hour. Laboratory 3 hours. Total 4 hours per week.

AUT 190 COORDINATED INTERNSHIP (1cr.)
Supervises on-the-job training in selected business, industrial or service firms coordinated by the college. Credit/practice ratio not to exceed 1:5 hours. May be repeated for credit.

AUT 215 EMISSIONS SYSTEMS DIAGNOSIS AND REPAIR (2 cr.) Presents logical diagnostic paths to identify vehicle HC-CO, O2, and NOx failure areas, teaches a progression of failure detection from most likely to more complex causes. Emphasizes use of infrared analyzer and manufacturer's specified adjustments. Lecture 2 hours per week.

AUT 236 AUTOMOTIVE CLIMATE CONTROL (4 cr.)
Introduces principles of refrigeration, air conditioning controls, and adjustment and general servicing of automotive air conditioning systems.

Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

AUT 241 AUTOMOTIVE ELECTRICITY I (3 cr.) Introduces electricity and magnetism, symbols and circuitry as applied to the alternators, regulators, starters, lighting systems, instruments and gauges and accessories. Part I of II. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

AUT 242 AUTOMOTIVE ELECTRICITY II (3 cr.) Introduces electricity and magnetism, symbols and circuitry as applied to the alternators, regulators, starters, lighting systems, instruments and gauges and accessories. Part II of II. Lecture 2 hours. Laboratory 2 hours. Total 4-6 hours per week.

AUT 245 AUTOMOTIVE ELECTRONICS (3 cr.) Introduces field of electronics as it applies to the modern automobile. Emphasizes basic circuit operation, diagnosis and repair of digital indicator and warning systems. Lecture 3 hours. Total 3 hours per week.

AUT 265 AUTOMOTIVE BRAKING SYSTEMS (3 cr.) Presents operation, design, construction, repair, and servicing of braking system, including Anti-Lock Brake Systems (ABS). Explains uses of tools and test equipment, evaluation of test results, estimation of repair cost for power, standard and disc brakes. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

AUT 266 AUTO ALIGNMENT, SUSPENSION AND STEERING (3 cr.) Introduces use of alignment equipment in diagnosing, adjusting, and repairing front and rear suspensions. Deals with repair and servicing of power and standard steering systems. Lecture 1 hour. Laboratory 6 hours. Total 7 hours per week.

AUT 275 SHOP MANAGEMENT (2 cr.) Studies shop layout, personnel management, cost analysis record keeping and quality control. Discusses shop manager, service salesman, and service writer's roles in customer relations. Lecture 2 hours per week.

BROADCASTING (BCS)

BCS 110 FUNDAMENTALS IN VIDEO PRODUCTION (4 cr.) Studies the use of video equipment and the application of production techniques and aesthetics in electronic media, and develops fundamental production skills through hands on experience with cameras, video tape records, video switcher, graphic computers, and lighting instruments. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week. Prerequisite: ENF 3 or above.

BCS 299 SUPERVISED STUDY (1 cr.) Assigns problems for independent study incorporating previous instruction and supervised by the instructor. May be repeated for credit. Variable hours. 1-5 credits.

BIOLOGY (BIO)

BIO 101 GENERAL BIOLOGY I (4 cr.) Explores fundamental characteristics of living matter from the molecular level to the ecological community with emphasis on general biological principles. Introduces the diversity of living organisms, their structure, function and evolution. Part I of II. Lecture 3 hours. Recitation and lab 3 hours. Total 6 hours per week. Prerequisite: A placement of ENF 3 or above. MTE 1-3.

BIO 102 GENERAL BIOLOGY II (4 cr.) Explores fundamental characteristics of living matter from the molecular level to the ecological community with emphasis on general biological principles. Introduces the diversity of living organisms, their structure, function and evolution. Part II of II. Lecture 3 hours. Recitation and lab 3 hours. Total 6 hours per week. Prerequisite: BIO 101.

BIO 107 - BIOLOGY OF THE ENVIRONMENT (4 cr.) Presents the basic concepts of environmental science through a topical approach. Includes the scientific method, population growth and migration, use of natural resources and waste management, ecosystem simplification recovery, evolution, biogeochemical cycles, photosynthesis and global warming, geological formations, atmosphere and climate, and ozone depletion and acid deposition. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

BIO 110 - GENERAL BOTANY (4 cr.) Emphasizes plant life cycles, anatomy, morphology, taxonomy, and evolution. Considers the principles of genetics, ecology, and physiology. Lecture 3 hours. Recitation and laboratory 3 hours. Total 6 hours per week.

BIO 120 - GENERAL ZOOLOGY (4 cr.) Presents basic biological principles, and emphasizes structure, physiology and evolutionary relationships of invertebrates and vertebrates. Lecture 3 hours. Recitation and laboratory 3 hours. Total 6 hours per week.

BIO 151 - HUMAN GROSS ANATOMY (1 cr.) Introduces students to human anatomy through dissection of a cadaver. Human Gross Anatomy I includes dissection of back, chest and abdominal muscles, spinal cord structures and upper and lower limb structures. Human Gross Anatomy II includes dissection of thoracic, abdomino-pelvic and cranial cavities. Part I of II. Laboratory 3 hours per week. Prerequisite: BIO 231.

BIO 152 - HUMAN GROSS ANATOMY II (1 cr.) Introduces students to human anatomy through dissection of a cadaver. Human Gross Anatomy I includes dissection of back, chest and abdominal muscles, spinal cord structures and upper and lower limb structures. Human Gross Anatomy II includes dissection of thoracic, abdomino- pelvic and cranial cavities. Part II of II. Laboratory 3 hours per week. Prerequisite: BIO 231.

BIO 205 GENERAL MICROBIOLOGY (4 cr.) Examines morphology, genetics, physiology, ecology, and control of microorganisms. Emphasizes application of microbiological techniques to selected fields. Prerequisites one year of college biology and one year of college chemistry or divisional approval. Lecture 3 hours. Recitation and laboratory 3 hours. Total 6 hours per week. Prerequisite: A placement of ENF 3 or above.

BIO 231 HUMAN ANATOMY AND PHYSIOLOGY I (4 cr.) Integrates the study of gross and microscopic anatomy with physiology, emphasizing the analysis and interpretation of physiological data. Lecture 3 hours. Recitation and laboratory 3 hours. Total 6 hours per week. Prerequisite: A placement of ENF 3 or above; One year of college biology and one year of college chemistry or divisional approval. Part I of II.

BIO 232 HUMAN ANATOMY AND PHYSIOLOGY II (4 cr.) Integrates the study of gross and microscopic anatomy with physiology, emphasizing the analysis and interpretation of physiological data. Lecture 3 hours. Recitation and laboratory 3 hours. Total 6 hours per week. Prerequisite: BIO 231; one year of college biology and one year of college chemistry or divisional approval. Part II of II.

BIO 256 - GENERAL GENETICS (4cr.) Explores the principles of genetics ranging from classical Mendelian inheritance to the most recent advances in the biochemical nature and function of the gene. Includes experimental design and statistical analysis. Prerequisite BIO 101-102 or equivalent. Lecture 3 hours. Recitation and laboratory 3 hours. Total 6 hours per week. 4 credits

BIO 270 GENERAL ECOLOGY (3-4 cr.) Studies interrelationships between organisms and their natural and cultural environments with emphasis on populations, communities, and ecosystems. Prerequisite BIO 101-102 or divisional approval. Lecture 2-3 hours. Recitation and laboratory 3-6 hours. Total 5-9 hours per week. Prerequisite: A placement of ENF 3 or above.

BUILDING (BLD)

BLD 105 SHOP PRACTICES AND PROCEDURES (3 cr.) Introduces basic hand and power tools with emphasis on proper care and safety practices. Introduces materials used in building trades including metals, plastics, and woods with stress placed on the processing techniques of each. Emphasizes fasteners such as screws, rivets, and glues as well as brazed, soldered and welded joints. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

BLD 111 BLUEPRINT READING AND THE BUILDING CODE (3 cr.) Introduces reading and interpreting various kinds of blueprints and working drawings with reference to local, state, and national building codes. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

BLD 135 BUILDING CONSTRUCTION CARPENTRY (3 cr.) Presents woodworking technologies in carpentry. Introduces types of framing and building materials and equipment used in residential and light commercial construction. Emphasizes the development of skills in the safe use of hand and machine woodworking tools and development of construction terminology. Includes laboratory involvement in wall framing and carpentry practices. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

BLD 140 PRINCIPLES OF PLUMBING TRADE I (3 cr.) Studies the plumbing trade, the structure of the plumbing trade, apprenticeship standards, job safety, tools of the trade, the approved installation of plumbing materials, types of sanitary drainage pipe and piping layout of sanitary plumbing. Lecture 3 hours per week.

BLD 147 PRINCIPLES OF BLOCK AND BRICKLAYING I (3 cr.) Presents fundamentals of masonry practices.

Includes foundations, block laying skills, mortar mixing, measuring, and introduction to bricklaying techniques. Emphasizes hands-on applications of block and brick techniques. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

BLD 148 PRINCIPLES OF BLOCK AND BRICKLAYING II (3 cr.) Studies skills involved in block and bricklaying, including corners, windows, arches, and decorative work. Emphasizes developing speed and accuracy with materials. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

BUSINESS MANAGEMENT AND ADMINISTRATION (BUS)

BUS 100 INTRODUCTION TO BUSINESS (3 cr.) Presents a broad introduction to the functioning of business enterprise within the U.S. economic framework. Introduces economic systems, essential elements of business organization, production, and human resource management, marketing, finance, and risk management. Develops business vocabulary. Lecture 3 hours per week. Prerequisites: ENF 3 or above.

BUS 110 BUSINESS PROTOCOL (3 cr.) Presents basic business etiquette, customs and protocol for individuals desiring to succeed in the global business environment. Presents information on new manners relating to diversity, plurality, family values, sexual freedom, substance abuse, and hiring and firing practices. Discusses dress, language, communication traditions, socializing, traveling and meeting protocol. Lecture 3 hours per week.

BUS 111 PRINCIPLES OF SUPERVISION I (3 cr.) Teaches fundamentals of supervision, including primary responsibilities of the supervisor. Introduces factors relating to work of supervisor and subordinates. Covers aspects of leadership, job management, work improvement, training and orientation, performance evaluation, and effective employee/supervisor relationships. Lecture 3 hours per week. Prerequisite: ENF 3 or above.

BUS 112 PRINCIPLES OF SUPERVISION II (4 cr.) Develops skills in carrying out the responsibilities of a supervisor including interviewing, evaluating and disciplining, and problem-solving techniques. Prerequisite BUS 111. Lecture 3 hours per week. Prerequisite: ENF 3 or above.

BUS 116 ENTREPRENEURSHIP (3 cr.) Presents the various steps considered necessary when going into business. Includes areas such as product-service analysis, market research evaluation, setting up books, ways to finance startup, operations of the business, development of business plans, buyouts versus starting from scratch, and franchising. Uses problems and cases to demonstrate implementation of these techniques. Lecture 3 hours per week. Prerequisite: ENF 3 or above.

BUS 125 APPLIED BUSINESS MATHEMATICS (3 cr.) Applies mathematical operations to business process and problems such as wages and payroll, sales and property taxes, check-book records and bank reconciliation, depreciation, overhead, distribution of profit and loss in partnerships, distribution of corporate dividends, commercial discounts, markup, markdown, simple interest, present values, bank discount notes, multiple payment plans, compound interest, annuities, sinking funds, and amortization. Lecture 3 hours per week. Prerequisites: ENF 3 or above, MTH 120 or division approval.

BUS 149 WORKPLACE ETHICS (1 cr.) Provides a broad overview of ethics in the modern day business world including workforce skill building and self-awareness through group discussions. Discusses workplace topics such as diversity, substance abuse, hiring and firing and workplace practices, appropriate dress, communication, business ethics, and interviewing. Lecture 1 hour per week.

BUS 160 LEGAL ASPECTS OF SMALL BUSINESS OPERATIONS (1 cr.) Covers the functional areas of business law, specifically as it applies to small business. Provides the students with a working knowledge of business contracts, agency relationships, and product liability. Provides a knowledge base for small business owners to overcome problems that are individually within their abilities. Covers selection of professional assistance for problems of a more serious nature. Lecture 1 hour per week.

BUS 165 SMALL BUSINESS MANAGEMENT (3 cr.) Identifies management concerns unique to small businesses. Introduces the requirements necessary to initiate a small business, and identifies the elements comprising a business plan. Presents information establishing financial and administrative controls, developing a marketing strategy, managing business operations, and the legal and government relationships specific to small businesses. Lecture 3 hours per week. Prerequisites: ENF 3 or above.

BUS 190 COORDINATED INTERNSHIP (3 cr.) Supervises on-the-job training in selected business, industrial or service firms coordinated by the college. Credit/practice ratio not to exceed 1:5 hours. May be repeated for credit. HOPE would require 75 contact hours in the internship.

BUS 200 PRINCIPLES OF MANAGEMENT (3 cr.) Teaches management and the management functions of planning, organizing, leading, and controlling. Focuses on application of management principles to realistic situations managers encounter as they attempt to achieve organizational objectives. Lecture 3 hours per week. Prerequisite: ENF 3 or above.

BUS 205 HUMAN RESOURCE MANAGEMENT (3 cr.) Introduces employment, selection, and placement of personnel, forecasting, job analysis, job descriptions, training methods and programs, employee evaluation systems, compensation, benefits, and labor relations. Lecture 3 hours per week. Prerequisite: ENF 3 or above.

BUS 234 SUPPLY CHAIN MANAGEMENT (3 cr.) Examines the process of planning, organizing, and controlling the flow of materials and services from supplier to end users/ customers. Focuses on coordinating supply management, operations and integrated logistics into a seamless pipeline to maintain a continual flow of products and services. Lecture 3 hours per week.

BUS 241 BUSINESS LAW I (3 cr.) Develops a basic understanding of the US business legal environment. Introduces property and contract law, agency and partnership liability, and government regulatory law. Students will be able to apply these legal principles to landlord/tenant disputes, consumer rights issues, employment relationships, and other business transactions. Lecture 3 hours per week. Prerequisites: ENF 3 or above.

BUS 255 INVENTORY AND WAREHOUSE MANAGEMENT (3 cr.) Emphasizes the relationships of inventory and warehouse management to customer service and profitability of the wholesale distributor. Focuses on the role of computerized systems and resulting information for effective management of inventory and the warehouse under various conditions. Lecture 3 hours per week.

BUS 280 INTRODUCTION TO INTERNATIONAL BUSINESS I (3 cr.) Studies the problems, challenges, and opportunities which arise when business operations or organizations transcend national boundaries. Examines the functions of international business in the economy, international and transnational marketing, production, and financial operations. Lecture 3 hours per week. Prerequisites: ENF 3 or above.

BUS 290 COORDINATED INTERNSHIP (3 cr.) Supervises on-the-job training in selected business, industrial or service firms coordinated by the college. Lecture 3 hours per week.

CHILDHOOD DEVELOPMENT (CHD)

CHD 109 METHODS IN MOVEMENT AND MUSIC EDUCATION FOR CHILDREN (3 cr.) Emphasizes theory and practice in movement and music education and the integration of these skills in a curriculum. Designed for teachers and aides in childcare, preschool, nursery, or primary schools. Lecture 2 hours. Laboratory 2-hours. Total 4 hours per week. Prerequisites: ENF 2.

CHD 118 LANGUAGE ARTS FOR YOUNG CHILDREN (3 cr.) Presents techniques and methods for encouraging the development of language and perceptional skills in young children. Stresses improvement of vocabulary, speech and methods to stimulate discussion. Surveys children's literature, examines elements of quality storytelling and story reading, and stresses the use of audio-visual materials. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week. Prerequisites: A placement of ENF 2 or above.

CHD 120 INTRODUCTION TO EARLY CHILDHOOD EDUCATION (3 cr.) Introduces early childhood development through activities and experiences in nursery, pre-kindergarten, kindergarten, and primary programs. Investigates classroom organization and procedures, and use of classroom time and materials, approaches to education for young children, professionalism, and curricular procedures. Lecture 3 hours per week.

CHD 121 – CHILDHOOD EDUCATIONAL DEVELOPMENT I (3cr.) Focuses attention on the observable characteristics of children from birth through adolescence. Concentrates on cognitive, physical, social, and emotional changes that occur. Emphasizes the relationship between development and child's interactions with parents, siblings, peers, and teachers. Part I of II. Lecture 3 hours per week. Prerequisite: ENF 2 or above.

CHD 125 CREATIVE ACTIVITIES FOR CHILDREN (3 cr.) Prepares individuals to work with young children in the arts and other creative age-appropriate activities. Investigates affective group experiences and open-ended activities. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

CHD 126 SCIENCE AND MATH CONCEPTS FOR CHILDREN (3 cr.) Covers the selection of appropriate developmental learning materials for developing activities to stimulate the logical thinking skills in children. Lecture 2 hours. Laboratory ~~2~~ hours. Total 4 hours per week. Prerequisites: A placement of ENF 2 or above and MTE 1-3.

CHD 145 TEACHING ART, MUSIC AND MOVEMENT TO CHILDREN (3 cr.) Focuses on children's exploration, play, and creative expression in the areas of art, music, and movement. Emphasis will be on developing strategies for using various open-ended media representing a range of approaches in creative thinking. Addresses strategies for intervention and support for exceptional children and English Language Learners. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week. Prerequisites: A placement of ENF 2 or above.

CHD 165 OBSERVATION AND PARTICIPATION IN EARLY CHILDHOOD/PRIMARY SETTING (3 cr.) Observes and participates in early childhood settings such as child care centers, pre-schools, Montessori schools or public schools in Kindergarten through 3rd grade levels. Students spend one hour each week in a seminar session in addition to 60 clock hours in the field. May be taken again for credit. Lecture 1 hour. Laboratory 4 hours. Total 5 hours per week.

CHD 205 GUIDING THE BEHAVIOR OF CHILDREN (3 cr.) Explores positive ways to build self-esteem in children and help them develop self-control. Presents practical ideas for encouraging pro-social behavior in children and emphasizes basic skills and techniques in-group management. Lecture 3 hours per week.

CHD 210 INTRODUCTION TO EXCEPTIONAL CHILDREN (3 cr.) Reviews the history of education for exceptional children. Studies the characteristics associated with exceptional children. Explores positive techniques for managing behavior and adapting materials for classroom use. Lecture 3 hours per week.

CHD 220 INTRODUCTION TO SCHOOL-AGE CHILD CARE (3 cr.) Examines the purposes of school-age child care in today's society, the role of adults within school-age child care, and the state of the profession of school-age child care. Lecture 3 hours per week.

CHD 225 CURRICULUM DEVELOPMENT FOR SCHOOL-AGE CHILD CARE (3 cr.) Explores the creative activities, techniques, interactions, and program development that promote positive social and emotional growth in school-age children. Emphasizes positive development through everyday programming and experiences. Lecture 3 hours per week.

CHD 230 BEHAVIOR MANAGEMENT FOR SCHOOL-AGE CHILD CARE (3 cr.) Discusses the development of social skills that school- age children need for self-management, including self-discipline, self-esteem, and coping with stress and anger. Explores ways to effectively guide and discipline school- age children, focusing on how adults can facilitate positive pro-social and self- management skills. Lecture 3 hours per week.

CHD 235 HEALTH & RECREATION FOR SCHOOL-AGE CHILD CARE (3 cr.) Examines the physical growth of school-age children and the role of health and recreation in school-age child development. Explores the use of medication, misuse of drugs, health issues of children, and the availability of community resources. Lecture 3 hours per week.

CHD 265 OBSER. AND PART, IN EARLY CH/PRIMARY SETTINGS (3 cr.) Observes and participates in early childhood settings such as child care centers, pre-school, Montessori schools, or public school settings (kindergarten through third grade). Emphasizes planning and implementation of appropriate activities and materials for children. Students will spend one hour each week in a seminar session in addition to 60 clock hours in the field. May be taken again for credit. Lecture 1 hour. Laboratory 4 hours. Total 5 hours per week.

CHD 270 ADMINISTRATION OF EARLY CHILDCARE PROGRAMS (3 cr.) Examines the skills needed for establishing and managing early childhood programs. Emphasizes professionalism and interpersonal skills, program planning, staff selection and development, creating policies, budgeting, and developing forms for record keeping. Lecture 3 hours per week.

CHEMISTRY (CHM)

CHM 110 SURVEY OF CHEMISTRY (3 cr.) Introduces the basic concepts of general, organic, and biochemistry with emphasis on their applications to other disciplines. No previous chemistry background required. Lecture 3 hours per week. Prerequisites: ENF 2 or above, MTE 1-3.

CHM 111 COLLEGE CHEMISTRY I (4 cr.) Explores the fundamental laws, theories, and mathematical concepts of chemistry. Designed primarily for science and engineering majors. Requires a strong background in mathematics. Part I of II. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week. Prerequisites: ENF 3 or above, Co-requisite: MTH 163.

CHM 112 COLLEGE CHEMISTRY II (4 cr.) Explores the fundamental laws, theories, and mathematical concepts of chemistry. Designed primarily for science and engineering majors. Requires a strong background in mathematics. Part II of II. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week. Prerequisite: CHM 111.

CHM 241 ORGANIC CHEMISTRY I (3 cr.) Introduces fundamental chemistry of carbon compounds, including structures, physical properties, syntheses, and typical reactions. Emphasizes reaction Mechanisms. Co-requisite CHM 243, Part I of II. Lecture 3 hours per week. Prerequisite: CHM 112.

CHM 242 ORGANIC CHEMISTRY II (3 cr.) Introduces fundamental chemistry of carbon compounds, including structures, physical properties, syntheses, and typical reactions. Emphasizes reaction mechanisms. Co-requisite CHM 244. Part II of II. Lecture 3 hours per week. Prerequisite: CHM 241.

CHM 243 ORGANIC CHEMISTRY LABORATORY I (1 cr.) Is taken concurrently with CHM 241 and CHM 242. Part I of II Laboratory 3 hours per week.
CHM 244 ORGANIC CHEMISTRY LABORATORY II (1 cr.) Is taken concurrently with CHM 241 and CHM 242. Part II of II Laboratory 3 hours per week.

CHINESE (CHI)

CHI 101 - BEGINNING CHINESE I (5 cr.) Introduces understanding, speaking, reading, and writing skills; emphasizes basic Chinese sentence structure. Prerequisite: Part I of II. Lecture 5 hours per week.

CHI 102 - BEGINNING CHINESE II (5 cr.) Introduces understanding, speaking, reading, and writing skills; emphasizes basic Chinese sentence structure. Prerequisite: CHI 101 Part II of II. Lecture 5 hours per week.

COMMUNICATION STUDIES AND THEATRE (CST)

CST 110 INTRODUCTION TO COMMUNICATION (2-3 cr.) Examines the elements affecting speech communication at the individual, small group and public communication levels with emphasis on practice of communication at each level. Lecture 2-3 hours per week. Prerequisites: ENF 2.

CST 130 INTRODUCTION TO THE THEATRE (3 cr.) Surveys the principles of drama, the development of theatre production, and selected plays to acquaint the student with various types of theatrical presentations. Lecture 3 hours per week.

CST 131 ACTING I (3 cr.) Develops personal resources and explores performance skills through such activities as theatre games, role playing, improvisation, work on basic script units, and performance of scenes. Part I of II. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

CST 132 ACTING II (3 cr.) Develops personal resources and explores performance skills through such activities as theatre games, role playing, improvisation, work on basic script units, and performance of scenes. Part II of II. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

CST 136 THEATRE WORKSHOP (3 cr.) Enables students to work in various activities of play production. The student participates in performance, set design, stage carpentry, sound, costuming, lighting, stage-managing, props, promotion, or stage crew. May be repeated for credit. Variable hours per week.

CST 227 BUSINESS AND PROFESSIONAL COMMUNICATION (3 cr.) Emphasizes principles and practical application to effective professional oral communication behaviors to include speaking, listening, and relating, and rhetorical sensitivity within professional, business, and organizational contexts. Lecture 3 hours per week. Prerequisite: ENF 3 or above.

CST 231 HISTORY OF THEATRE I (3 cr.) Analyzes and studies theatre history to include architecture, performers and performance, playwrights, stage, production methods, and audience from the Greeks through modern drama. Part I of II. Lecture 3 hours per week. Prerequisite: ENF 3 or above.

COMPUTER SCIENCE (CSC)

CSC 200 - INTRODUCTION TO COMPUTER SCIENCE (3 cr.) Provides broad introduction to computer science. Discusses architecture and function of computer hardware, including networks and operating systems, data and instruction representation and data organization. Covers software, algorithms, programming languages and software engineering. Discusses artificial intelligence and theory of computation. Includes a hand-on component. Lecture 3 hours per week.

CSC 201 - COMPUTER SCIENCE I (4cr.) Introduces algorithm and problem solving methods. Emphasizes structured programming concepts, elementary data structures and the study and use of a high level programming language. Co-requisite CSC 200 or equivalent or divisional approval. Lecture 4 hours per week. Prerequisite: ENF 3 or above, MTE 1-5.

CSC 202 - COMPUTER SCIENCE II (4 cr.) Examines data structures and algorithm analysis. Covers data structures (including sets, strings, stacks, queues, arrays, records, files, linked lists, and trees), abstract data types, algorithm analysis (including searching and sorting methods), and file structures. Prerequisite CSC 201, ENF 3 or above, MTE 1-5. Lecture 4 hours per week.

CSC 205 - COMPUTER ORGANIZATION (3 cr.) Examines the hierarchical structure of computer architecture. Focuses on multi- level machine organization. Uses a simple assembler language to complete programming projects. Includes processors, instruction, execution, addressing techniques, data representation and digital logic. Prerequisite: ENF 3 or above, MTE 1-5. Lecture 3 hours per week.

COMPUTER AIDED DRAFTING & DESIGN (CAD)

CAD 201 COMPUTER AIDED DRAFTING AND DESIGN I (3 cr.) Teaches computer-aided drafting concepts and equipment designed to develop a general understanding of components of a typical CAD system and its operation. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

CAD 202 COMPUTER AIDED DRAFTING AND DESIGN II (3 cr.) Teaches production drawings and advanced operations in computer aided drafting. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week. Prerequisites: ENF 3 or above, MTE 1-6.

CAD 203 COMPUTER AIDED DRAFTING AND DESIGN III (3 cr.) Teaches advanced CAD applications. Includes customization and/or use of advanced software. Lecture 2 hours. Laboratory 2hours. Total 4 hours per week. Prerequisites: ENF 3 or above, MTE 1-6.

CAD 232 COMPUTER AIDED DRAFTING II (3 cr.) Teaches advanced operation in computer-aided drafting. Prerequisite: CAD 231. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

CAD 233 COMPUTER AIDED DRAFTING III (3 cr.) Exposes student to 3-D and modeling. Focuses on proficiency in Production drawing using a CAD system. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

CAD 238 COMPUTER-AIDED MODELING AND RENDERING I (3 cr.) Focuses on training students in the contemporary techniques of 3D modeling, rendering, and animation on the personal computer. Introduces the principles of visualization, sometimes known as photo-realism, which enables the student to create presentation drawings for both architectural and industrial product design. Uses computer animation to produce walk-throughs that will bring the third dimension to architectural designs. Part I of II. Lecture2 hours. Laboratory 2 hours. Total 4 hours per week.

CAD 239 COMPUTER-AIDED MODELING AND RENDERING II (3 cr.) Focuses on training students in the contemporary techniques of 3D modeling, rendering, and animation on the personal computer. Introduces the principles of visualization, sometimes known as photo-realism, which enables the student to create presentation drawings for both architectural and industrial product design. Uses computer animation to produce walk-throughs that will bring the third dimension to architectural designs. Part II of II. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

CAD 241 PARAMETRIC SOLID MODELING I (3 cr.) Focuses on teaching students the design of parts by parametric solid modeling. Topics covered will include, but not be limited to, sketch profiles; geometric and dimensional constraints; 3-D features; model generation by extrusion, revolution and sweep; and the creation of 2-D drawing views that include sections, details and auxiliary. Part I of II. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

CAD 242 PARAMETRIC SOLID MODELING II (3 cr.) Focuses on teaching students the design of parts by parametric solid modeling. Topics covered will include, but not be limited to, sketch profiles; geometric and dimensional constraints; 3-D features; model generation by extrusion, revolution and sweep; and the creation of 2-D drawing views that include sections, details and auxiliary. Part II of II. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

CAD 243 PARAMETRIC SOLID MODELING III (3 cr.) Focuses on teaching students the software for the design of parts and assemblies by means of advanced parametric solid modeling to include advanced mechanical drafting techniques and building mechanical assemblies. Prerequisites: CAD 241, CAD 242 Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

CAD 293 STUDIES IN COMPUTER-AIDED DRAFTING. Covers new content not covered in existing courses in the discipline. Allows instructor to explore content and instructional methods to assess the course's viability as a permanent offering. Variable hours per week. 1-5 credits

ECONOMICS (ECO)

ECO 201 PRINCIPLES OF MACROECONOMICS (3 cr.) Introduces macroeconomics including the study of Keynesian, classical, monetarist principles and theories, the study of national economic growth, inflation, recession, unemployment, financial markets, money and banking, the role of government spending and taxation, along with international trade and investments. Lecture 3 hours per week. Prerequisites: ENF 3 or above, MTE 1-3.

ECO 202 PRINCIPLES OF MICRO--ECONOMICS (3 cr.) Introduces the basic concepts of micro-economics. Explores the free market concepts with coverage of economic models and graphs, scarcity and choices, supply and demand, elasticities, marginal benefits and costs, profits, and production and distribution. Lecture 3 hours per week. Prerequisites: ENF 3 or above, MTE 1-3.

EDUCATION (EDU)

EDU 200 INTRODUCTION TO TEACHING AS A PROFESSION (3 cr.) Provides an orientation to the teaching profession in Virginia, including historical perspectives, current issues, and future trends in education on the national and state levels. Emphasizes information about teacher licensure examinations, steps to certification, teacher preparation and induction programs, and attention to critical shortage areas in Virginia. Includes supervised field placement (recommended: 40 clock hours) in a K-12 school. Prerequisite: Successful completion of 24 credits of transfer courses. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week. Prerequisites: All Developmental English requirements met.

EDU 225 AUDIOVISUAL MATERIALS AND COMPUTER SOFTWARE (3 cr.) Prepares students to construct graphic teaching aids, to select and develop materials for instructional support, to operate, maintain and use audiovisual equipment used in the classroom. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week. Prerequisites: All Developmental English requirements met.

EDU 235 HEALTH, SAFETY, AND NUTRITIONAL EDUCATION (3 cr.) Focuses on the health and developmental needs of children and the methods by which these needs are met. Emphasizes positive health, hygiene, nutrition and feeding routines, childhood diseases, and safety issues. Emphasizes supporting the mental and physical wellbeing of children, as well as procedures for reporting child abuse. Lecture 3 hours per week. Prerequisites: A placement of ENF 3 or above.

ENGINEERING (EGR)

EGR 110 ENGINEERING GRAPHICS (3 cr.) Presents theories and principles of orthographic projection. Studies multiview, pictorial drawings and sketches, geometric construction, sectioning, lettering, tolerancing, dimensioning and auxiliary projections. Studies the analysis and graphic presentation of space relationships of fundamental geometric elements; points, lines, planes and solids. Includes instruction in Computer Aided Drafting. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

EGR 123 - INTRODUCTION TO ENGINEERING DESIGN (2 cr.) Introduces the fundamental knowledge and experience needed to understand the engineering design process through the basics of electrical, computer, and mechanical systems. Includes the completion of a project in which a specific electro- mechanical robot kit will be analyzed, assembled, and operated. Lecture 1 hour. Laboratory 2 hours. Total 3 hours per week.

EGR 135 - STATICS FOR ENGINEERING TECHNOLOGY (3 cr.) Introduces Newton's Laws, resultants and equilibrium of force systems, analysis of trusses and frames. Teaches determination of centroids, distributed loads and moments of inertia. Covers dry friction and force systems in space. Lecture 3 hours per week. 3 credits. Prerequisites MTH 103 or MTH 163 or MTH 166

EGR 136 - STRENGTH OF MATERIALS FOR ENGINEERING TECHNOLOGY (3 cr.) Presents concepts of stress and strain. Focuses on analysis of stresses and deformations in loaded members, connectors, shafts, beams, columns and combined stress. Lecture 3 hours per week.

EGR 216 - COMPUTER METHODS IN ENGINEERING AND TECHNOLOGY (3 CR.) Provides advanced level experience in using a computer as a tool for solving technical problems and performing office functions. Includes computer hardware and operating system usage, structured programming in a selected high level language, use of word processing software, computer graphics and spreadsheets. Focuses on the analysis and solution of problems in engineering and technology. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

EGR 277 - DIGITAL LOGIC (3 cr.) Presents an introduction to digital logic, including such topics as number systems, Boolean Algebra, minimization techniques, implementation of digital functions, sequential machines, state diagrams, state tables, and programmable logic devices. Lecture 3 hours per week.

EGR 285 CAPSTONE PROJECT (1 cr.)
Provides a capstone research project for the final semester of the program, focusing inquiry upon an area of interest to the student or area relevant to their prospective career field. May include problem based research topics, internships, or other focused projects. Prerequisite: IND 290. Lecture 1 hour per week.

ELECTRICAL TECHNOLOGY (ELE)

ELE 110 HOME ELECTRIC POWER (3 cr.) Covers the fundamentals of residential power distribution, circuits, panels, fuse boxes, breakers, transformers. Includes study of the national electrical code, purpose and interpretation. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

ELE 113 ELECTRICITY I (3 cr.) Teaches principles of electricity covering fundamentals, devices and components in both DC and AC circuits. Part I of II. Lecture 3 hours per week.

ELE 115 BASIC ELECTRICITY (3 cr.) Covers basic circuits and theory of fundamental concepts of electricity. Presents a practical approach to discussion of components and devices. Prerequisite: MTH 02 or equivalent. Lecture 3 hours per week. Prerequisites: A placement of ENF 2 or above and MTE 1-3.

ELE 138 NATIONAL ELECTRIC CODE REVIEW I (3 cr.) Covers purpose and interpretation of the National Electrical Code as well as various charts, code rulings and wiring methods. Prepares the student to take the journeyman-level exam. Lecture 2 hours per week.

ELE 156 ELECTRICAL CONTROL SYSTEMS (3 cr.) Includes troubleshooting and servicing electrical controls, electronic motors, motor controls, motor starters, relays, overloads, instruments and control circuits. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

ELE 233 - PROGRAMMABLE LOGIC CONTROLLER SYSTEMS I (3 cr.) Teaches operating and programming of programmable logic controllers. Covers analog and digital interfacing and communication schemes as they apply to system. Prerequisite: ETR 156 and ETR 211 or equivalent. Part I of II. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week. Prerequisite EGR 277.

EMERGENCY MEDICAL SERVICES (EMS)

EMS 111 EMERGENCY MEDICAL TECHNICIAN - BASIC (7 cr.) Prepares student for certification as a Virginia and National Registry EMT. Focuses on all aspects of pre-hospital basic life support as defined by the Virginia Office of Emergency Medical Services curriculum for Emergency Medical Technician. Co-requisite: EMS-120. Prerequisite: CPR certification at the Health Care Provider level. Lecture 5 hours. Laboratory 4 hours. Total 9 hours per week.

EMS 120 EMERGENCY MEDICAL TECHNICIAN-BASIC CLINICAL (1 cr.) Observes in a program approved clinical/field setting. Includes topics for both EMS 111 and EMS 113, dependent upon the program in which the student is participating and is a co-requisite to both EMS 111 and EMS 113. Lab 2 hours per week.

EMS 151 INTRODUCTION TO ADVANCED LIFE SUPPORT (4 cr.) Prepares the student for Virginia Enhanced certification eligibility and begins the sequence for National Registry Intermediate and/or Paramedic certification. Includes the theory and application of the following: foundations, human systems, pharmacology, overview of shock, venous access, airway management, patient assessment, respiratory emergencies, allergic reaction, and assessment based management. Conforms to the Virginia Office of Emergency Medical Services curriculum. Prerequisites: ENF 1 or 2, MTE 1 and MTE 2, EMT Certification. Co- requisite: EMS-170 ALS Internship I. Lecture 3 hours. Laboratory 2 hours. Total 5 hours per week.

EMS 153 BASIC ECG RECOGNITION (2 cr.) Focuses on the interpretation of basic electrocardiograms (ECG) and their significance. Includes an overview of anatomy and physiology of the cardiovascular system including structure, function and electrical conduction in the heart. Covers advanced concepts that build on the knowledge and skills of basic dysrhythmia determination and introduction to 12 lead ECG. Lecture 2 hours per week.

EMS 155 ALS – MEDICAL CARE (4 cr.) Continues the Virginia Office of Emergency Medical Services Intermediate and /or Paramedic curricula. Includes ALS pharmacology, drug and fluid administration with emphasis on patient assessment, differential diagnosis and management of multiple medical complaints. These include, but are not limited to conditions relating to cardiac, diabetic, neurological, non-traumatic abdominal pain, environmental, behavioral, gynecology, and toxicological disease conditions. Prerequisites: Current EMT certification, EMS-151 and EMS-153. Lecture 3 hours. Laboratory 2 hours. Total 5 hours per week.

EMS 157 ALS – TRAUMA CARE (3 cr.) Continues the Virginia Office of Emergency Medical Services Intermediate and/or Paramedic curricula. Utilizes techniques which will allow the student to utilize the assessment findings to formulate a field impression and implement the treatment plan for the trauma patient. Prerequisites: Current EMT certification and EMS 151. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

EMS 159 ALS – SPECIAL POPULATIONS (3 cr.) Continues the Virginia Office of Emergency Medical Services Intermediate and/or Paramedic curricula. Focuses on the assessment and management of specialty patients including obstetrical, neonates, pediatric, and geriatrics. Prerequisites: EMS-151 and EMS-153. Pre or co-requisite: EMS-155. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

EMS 161 INTERNATIONAL TRAUMA LIFE SUPPORT (ITLS) (1 cr.) Offers instruction for students in current topics of care for trauma patients and offers certification as an International Trauma Life Support Provider (ITLS) as defined by the American College of Emergency Physicians. Prerequisite: Current certification/ licensure as an EMS provider or other associated healthcare field. Lecture 1 hour per week.

EMS 165 ADVANCED CARDIAC LIFE SUPPORT (ACLS) (1 cr.) Prepares for certification as an Advanced Cardiac Life Support provider. Follows course as defined by the American Heart Association. Prerequisites: EMS 100 and EMS 153, or equivalent. Lecture 1 hour per week.

EMS 168 EMERGENCY PEDIATRIC CARE (PEPP) (1 cr.) Prepares the student for certification as a prehospital pediatric care provider as defined by the American Academy of Pediatrics. Covers primary assessment and emergency care of infants and children. Lecture 1 hour per week.

EMS 169 PEDIATRIC ADVANCED LIFE SUPPORT (PALS) (1 cr.) Prepares the student for certification as a pediatric advanced life support provider as defined by the American Heart Association. Covers primary assessment and emergency care of infants and children. Lecture 1 hour per week.

EMS 170 ALS INTERNSHIP I (2 cr.) Begins the first in a series of clinical experiences providing supervised direct patient contact in appropriate patient care facilities in and out of hospitals. Includes but not limited to patient care units such as the Emergency Department, Critical Care units, Pediatric, Labor and Delivery, Operating Room, Trauma Centers and various advanced life support units. Co-requisite: EMS 151. Laboratory 6 hours per week.

EMS 172 ALS CLINICAL INTERNSHIP II (2 cr.)
Continues with the second in a series of clinical experiences providing supervised direct patient contact in appropriate patient care facilities in and out of hospitals. Includes but not limited to patient care units such as the Emergency Department, Critical Care units, Pediatric, Labor and Delivery, Operating Room and Trauma Centers. Pre-requisite: EMS-151. Laboratory 6 hours per week.

EMS 173 ALS FIELD INTERNSHIP II (1 cr.) Continues with the second in a series of field experiences providing supervised direct patient care in out-of-hospital advanced life support units. Laboratory 3 hours per week.

EMS 195 TOPICS IN (1 cr.) Provides an opportunity to explore topical areas of interest to or needed by students. Offers instruction for students in current topics of care for medical patients and offers certification as an Advanced Medical Life Support Provider (AMLS) as defined by the National Association of Emergency Medical Technicians. Prerequisite: Current certification/ licensure as an EMS provider or other associated healthcare field. Lecture 1 hour per week.

EMS 201 EMS PROFESSIONAL DEVELOPMENT (3 cr.) Prepares students for Paramedic certification at the National Registry level by fulfilling community activism, personal wellness, resource management, ethical considerations in leadership and research objectives in the Virginia Office of Emergency Medical Services Paramedic curriculum. Lecture 3 hours per week.

EMS 205 ADVANCED PATHOPHYSIOLOGY (4 cr.) Focuses on the pathological processes of disease with emphasis on the anatomical and physiological alterations of the human body by systems. Includes diagnosis and management appropriate to the advanced health care provider in and out of the hospital environment. Pre or co- requisite: NAS 150. Lecture 4 hours per week.

EMS 207 ADVANCED PATIENT ASSESSMENT (3 cr.) Focuses on the principles of normal and abnormal physical exam. Emphasizes the analysis and interpretation of physiological data to assist in patient assessment and management. Applies principles during the assessment and management of trauma, medical, and specialty patients in laboratory environment. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

EMS 209 ADVANCED PHARMACOLOGY (4 cr.) Focuses on the principles of pharmacokinetics, pharmacodynamics and drug administration. Includes drug legislation, techniques of medication administration, and principles of math calculations. Emphasizes drugs used to manage respiratory, cardiac, neurological, gastrointestinal, fluid and electrolyte and endocrine disorders and includes classification, mechanism of action, indications, contra-indications, precautions, and patient education. Incorporates principles related to substance abuse and hazardous materials. Applies principles during the assessment and management of trauma, medical, and specialty patients in laboratory environment. Pre-requisite: NAS 150. Lecture 3 hours. Laboratory 2 hours. Total 5 hours per week.

EMS 211 OPERATIONS (2 cr.) Prepares the student in the theory and application of the following: medical incident command, rescue awareness and operations, hazardous materials incidents, and crime scene awareness. (Conforms to the current Virginia Office of Emergency Medical Services curriculum for paramedics.) Lecture 1 hour. Laboratory 2 hours. Total 3 hours per week.

EMS 213 ALS SKILLS DEVELOPMENT (1 cr.) Utilizes reinforcement and remediation of additional advanced life support skills, as needed. Laboratory 2 hours per week.

EMS 216 PARAMEDIC REVIEW (1 cr.) Provides the student with intensive review for the practical and written portions of the National Registry Paramedic exam. May be repeated once, for credit. Lecture 1 hour per week.

EMS 242 ALS CLINICAL INTERNSHIP III (1 cr.) Continues with the third in a series of clinical experiences providing supervised direct patient contact in appropriate patient care facilities in and out of hospitals. Includes but not limited to patient care units such as the Emergency Department, Critical Care units, Pediatric, Labor and Delivery, Operating Room, Trauma Centers and various advanced life support units. Laboratory 3 hours per week.

EMS 243 ALS FIELD INTERNSHIP III (1 cr.) Continues with the third in a series of field experiences providing supervised direct patient care in out-of-hospital advanced life support units. Laboratory 3 hours per week.

EMS 244 ALS CLINICAL INTERNSHIP IV (1 cr.) The fourth in a series of clinical experiences providing supervised direct patient contact in appropriate patient care facilities in and out of hospitals. Includes but not limited to patient care units such as the Emergency Department, Critical Care units, Pediatric, Labor and Delivery, Operating Room and Trauma Centers. May be repeated as necessary. Laboratory 3 hours per week.

EMS 245 ALS FIELD INTERNSHIP IV (1 cr.) Continues with the fourth in a series of field experiences providing supervised direct patient care in out-of-hospital advanced life support units. May be repeated as necessary. Laboratory 3 hours per week.

EMS 270 ALS INTERNSHIP I (2 cr.) Begins the first in a series of clinical experiences providing supervised direct patient contact in appropriate patient care facilities in and out of hospitals. Includes but not limited to patient care units such as the Emergency Department, Critical Care units, Pediatric, Labor and Delivery, Operating Room, Trauma Centers and various advanced life support units. Laboratory 6 hours per week.

EMS 299 SUPERVISED STUDY (1 cr.) Assigns problems for independent study incorporating previous instruction and supervised by the instructor. May be repeated for credit.

ENERGY TECHNOLOGY (ENE)

ENE 105 SOLAR THERMAL ACTIVE AND PASSIVE TECHNOLOGY (4 cr.) Provides a comprehensive study of thermal technology as it applies to collector types and ratings, open-loop versus closed-loop and system sizing. Introduces hydronics, hot water, and pool heating applications. Provides an introduction to fluid dynamics and chemistry as it applies to system installation and maintenance. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

ENE 230 GEOTHERMAL APPLICATIONS (4 cr.) Studies the use of geothermal energy for large and small scale production. Covers the feasibility of heat pump applications for local use on an individual basis. Lecture 3 hours. Lab 3 hours. Total 6 hours per week.

ENGLISH FUNDAMENTALS (ENF)

ENF 1 PREPARING FOR COLLEGE ENGLISH I (8 cr.) Provides integrated reading and writing instruction for students who require extensive preparation to succeed in college- level English courses. Students will place into this course based on placement test score. Upon successful completion and faculty recommendation, students will move into Preparing for College English III (if they require additional preparation) or into college-level English (if they require no additional preparation). Credit is not applicable toward graduation. Lecture 8 hours per week. Credits 8, Lecture 8, Contact Hours 8 Qualifying placement test score. 8 credits

ENF 2 PREPARING FOR COLLEGE ENGLISH II (4 cr.) Provides integrated reading and writing instruction for students who require inter-mediate preparation to succeed in college-level English courses. Students will place into this course based on placement test score. Upon successful completion and faculty recommendation, students will move into Preparing for College Level III (if they require additional preparation) or into college-level English (if they require no additional preparation). Credit is not applicable toward graduation. 4 Credits, 4 Lecture, 4 Contact Hours Qualifying placement test score. 4 credits

ENF 3 PREPARING FOR COLLEGE ENGLISH III (2 cr.) Provides integrated reading and writing instruction for students who require minimal preparation for college-level English but still need some preparation to succeed. Students in this course will be co- enrolled in college-level English. Students will place into this course based on placement test score. Credit is not applicable toward graduation. Credits 2, Lecture 2, Contact Hours 2 Qualifying placement score. Co-Enrollment in a college-level English course. 2 credits

ENGLISH (ENG)

ENG 111 COLLEGE COMPOSITION I (3 cr.) Introduces students to critical thinking and the fundamentals of academic writing. Through the writing process, students refine topics; develop and support ideas; investigate, evaluate, and incorporate appropriate resources; edit for effective style and usage; and determine appropriate approaches for a variety of contexts, audiences, and purposes. Writing activities will include exposition and argumentation with at least one researched essay. Lecture 3 hours per week. Prerequisites: ENF 3 or above, satisfactory score on appropriate English proficiency examination and four units of high school English or equivalent.

ENG 112 COLLEGE COMPOSITION II (3 cr.) Continues to develop college writing with increased emphasis on critical essays, argumentation, and research, developing these competencies through the examination of a range of texts about the human experience. Requires students to locate, evaluate, integrate, and document sources and effectively edit for style and usage. Lecture 3 hours per week. Prerequisites: ENF 3 or above, satisfactory score on appropriate English proficiency examination and four units of high school English or equivalent. CANNOT be taken out of sequence.

ENG 131 TECHNICAL REPORT WRITING I (3 cr.) Offers a review of organizational skills including

paragraph writing and basic forms of technical communications, various forms of business correspondence, and basic procedures for research writing. Includes instruction and practice in oral communication skills. Lecture 3 hours per week. Prerequisites: ENF 3 or above.

ENG 210 ADVANCED COMPOSITION (3 cr.) Helps students refine skills in writing non-fiction prose. Guides development of individual voice and style. Introduces procedures for publication. Prerequisite ENG 112 or divisional approval. Lecture 3 hours per week.

ENG 241 SURVEY OF AMERICAN LITERATURE I (3 cr.) Examines American literary works from colonial times to the present, emphasizing the ideas and characteristics of our national literature. Involves critical reading and writing. Prerequisite ENG 112 or divisional approval. Part I of II. Lecture 3 hours per week. May be taken out of sequence.

ENG 242 SURVEY OF AMERICAN LITERATURE II (3 cr.) Examines American literary works from colonial times to the present, emphasizing the ideas and characteristics of our national literature. Involves critical reading and writing. Prerequisite ENG 112 or divisional approval. Part II of II. Lecture 3 hours per week. May be taken out of sequence.

ENG 243 SURVEY OF ENGLISH LITERATURE I (3 cr.) Studies major English works from the Anglo-Saxon period to the present, emphasizing ideas and characteristics of the British literary tradition. Involves critical reading and writing. Prerequisite ENG 112 or divisional approval. Part I of II. Lecture 3 hours per week. May be taken out of sequence.

ENG 244 SURVEY OF ENGLISH LITERATURE II (3 cr.) Studies major English works from the Anglo-Saxon period to the present, emphasizing ideas and characteristics of the British literary tradition. Involves critical reading and writing. Prerequisite ENG 112 or divisional approval. Part II of II. Lecture 3 hours per week. May be taken out of sequence.

ENG 250 - CHILDREN'S LITERATURE (3 cr.) Surveys the history, development and genres of children's literature, focusing on analysis of texts for literary qualities and in terms of audience. Prerequisite(s) ENG 112 or 125 (or divisional approval).

ENG 251 SURVEY OF WORLD LITERATURE I (3 cr.) Examines major works of world literature. Involves critical reading and writing. Prerequisite ENG 112 or divisional approval. Part I of II. Lecture 3 hours per week. May be taken out of sequence.

ENG 252 SURVEY OF WORLD LITERATURE II (3 cr.) Examines major works of world literature. Involves critical reading and writing. Prerequisite ENG 112 or divisional approval. Part II of II. Lecture 3 hours per week. May be taken out of sequence.

ENVIRONMENTAL SCIENCE (ENV)

ENV 100 BASIC ENVIRONMENTAL SCIENCE (3 cr.) Presents and discusses basic scientific, health-related, ethical, economic, social and political aspects of environmental activities, policies/ decisions. Emphasizes the multidisciplinary nature of environmental problems and their potential solutions. Lecture 3 hours per week. Prerequisite: ENF 3 or above.

ELECTRONICS TECHNOLOGY (ETR)

ETR 141 ELECTRONICS I (3 cr.) Introduces electronic devices as applied to basic electronic circuits and systems. Part I of II. Lecture 3 hours per week.

ETR 142 ELECTRONICS II (3 cr.) Introduces electronic devices as applied to basic electronic circuits and systems. Part II of II. Lecture 3 hours per week.

ETR 150 MACHINE CONTROL USING RELAY & PROGRAMMABLE LOGIC (3 cr.) Provides an introduction to hardwired relay logic and the programmable logic controller (PLC) as utilized in a variety of different control tasks. Covers different types of inputs and outputs in control system. Teaches practical troubleshooting strategies. Prerequisites: ELE 156 and EGR 277. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

ETR 168 - DIGITAL CIRCUIT FUNDAMENTALS (3 cr.) Covers the fundamentals of digital logic and the study of digital circuits and their applications. Lecture 3 hours per week.

ETR 230 - MECHATRONIC PROCESS CONTROL (3 cr.) Studies systems integrating mechanical components with electrical components and logic devices used to control manufacturing operations. Surveys electromechanical actuators, sensors, digital to analog conversion, and methods of computer control as related to the managing and monitoring of manufacturing processes. Prerequisite: ELE 156 and EGR 277. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

ETR 246 - ELECTRONIC MOTOR DRIVES SYSTEMS (3 cr.) Introduces advanced operations, setup, programming and troubleshooting of electronic motor drives that are used for the control of industrial AC motors. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week. Prerequisite ELE 156.

ETR 266 - MICROPROCESSOR APPLICATIONS (3 cr.) Teaches fundamentals of micro-processors including architecture, internal operations, memory, I/O devices, machine level programming and interfacing. Prerequisite: ETR 281. Lecture 3 hours per week.

ETR 281 - DIGITAL SYSTEMS (3 cr.) Includes basic numbering systems, Boolean algebra, logic circuits and systems, pulse circuits and pulse logic systems as applied to computer and micro-processor technology Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

ETR 298 - SEMINAR AND PROJECT (1 cr.) Requires completion of a project or research report related to the student's occupational objectives and a study of approaches to the selection and pursuit of career opportunities in the field. May be repeated for credit. Variable hours.

FINANCIAL SERVICES (FIN)

FIN 215 FINANCIAL MANAGEMENT (3 cr.) Introduces basic financial management topics including statement analysis, working capital, capital budgeting, and long-term financing. Focuses on Net Present Value and Internal Rate of Return techniques, lease vs. buy analysis, and Cost of Capital computations. Uses problems and cases to enhance skills in financial planning and decision making. Lecture 3 hours per week. Prerequisite: ENF 3 or above, ACC 211.

FIN 260 FINANCIAL MANAGEMENT FOR SMALL BUSEINSS (2 cr.) Provides the tools of financial planning for the small business owner. Includes areas such as financial statements, ratio analysis, forecasting profit, cash flow, pricing, and obtaining capital. Prerequisite: ACC 220 or ACC 211 and Small Business Management. Lecture 2 hours per week.

FRENCH (FRE)

FRE 101 BEGINNING FRENCH I (5 cr.) Introduces understanding, speaking, reading, and writing skills and emphasizes basic French sentence structure. Part I of II. Lecture 4-5 hours per week. May include one additional hour of oral practice per week. Prerequisites: ENF 3 or above.

FRE 102 BEGINNING FRENCH II (5 cr.) Introduces understanding, speaking, reading, and writing skills and emphasizes basic French sentence structure. Part II of II. Lecture 4-5 hours per week. May include one additional hour of oral practice per week. Prerequisites: ENF 3 or above.

GEOGRAPHY (GEO)

GEO 210 PEOPLE AND THE LAND: INTRO TO CULTURAL GEOGRAPHY (3 cr.) Focuses on the relationship between culture and geography. Presents a survey of modern demographics, landscape modification, material and non-material culture, language, race and ethnicity, religion, politics, and economic activity. Introduces the student to types and uses of maps. Lecture 3 hours per week. Prerequisite: ENF 3 or above.

GERMAN (GER)

GER 101 - BEGINNING GERMAN I (5 cr.) Introduces understanding, speaking, reading, and writing skills and emphasizes basic German sentence structures. Part I of II. Lecture 5 hours per week. May include one additional hour oral practice per week.

GER 102 - BEGINNING GERMAN II (5 cr.) Introduces understanding, speaking, reading, and writing skills and emphasizes basic German sentence structures. Part II of II. Lecture 4-5 hours per week. May include one additional hour oral practice per week.

GEOLOGY (GOL)

GOL 105 PHYSICAL GEOLOGY (4 cr.) Introduces the composition and structure of the earth and modifying agents and processes. Investigates the formation of minerals and rocks, weathering, erosion, earthquakes, and crustal deformation. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week. Co-requisite: ENF 3 or above, and MTE 1-3.

GOL 106 HISTORICAL GEOLOGY (4 cr.) Traces the evolution of the earth and life through time. Presents scientific theories of the origin of the earth and life and interprets rock and fossil record. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week. Co-requisite: ENF 3 or above and MTE 1-3.

HEALTH CARE (HCT)

HCT 101 HEALTH CARE TECHNICIAN I (4 cr.)
Teaches basic care skills with emphasis on physical, social, emotional, and spiritual needs of patients. Covers procedures, communications and interpersonal relations; observations, charting and reporting; care planning, safety and infection control; anatomy and physiology, nutrition and patient feeding; ethics, death and dying. Prepares multi-skilled health care workers to care for patients of various ages with special emphasis on geriatric nursing, home health, and long and short-term care facilities. Lecture 4 hours per week. Prerequisites: ENF 1.

HCT 102 HEALTH CARE TECHNICIAN II (4 cr.)
Applies theory through laboratory experience for health care technicians to work in home health, long and short-term facilities. Prerequisite: HCT 101. Lecture ~~2~~ hours. Laboratory ~~46~~ hours. Total ~~6 8~~ hours per week.

HCT 110 THERAPEUTIC COMMUNICATION IN THE HEALTH CARE SETTING (3 cr.) Develops therapeutic relationship, communication and culture, problem solving, electronic communication, techniques in therapeutic communication and blocks to therapeutic communication. Addresses assertiveness, anger, and managing team conflict. Lecture 3 hours per week. Prerequisite: ENF 1.

HISTORY (HIS)

HIS 101 HISTORY OF WESTERN CIVILIZATION I (3 cr.) Examines the development of western civilization from ancient times to the present. Part I of II. Lecture 3 hours per week. Prerequisite: ENF 3 or above. May be taken out of sequence.

HIS 102 HISTORY OF WESTERN CIVILIZATION II (3 cr.) Examines the development of western civilization from ancient times to the present. Part II of II. Lecture 3 hours per week. Prerequisite: ENF 3 or above. May be taken out of sequence.

HIS 121 UNITED STATES HISTORY I (3 cr.) Surveys United States history from its beginning to the present. Part I of II. Lecture 3 hours per week. Prerequisite: ENF 3 or above. May be taken out of sequence.

HIS 122 UNITED STATES HISTORY II (3 cr.) Surveys United States history from its beginning to the present. Part II of II. Lecture 3 hours per week. Prerequisite: ENF 3 or above. May be taken out of sequence.

HIS 281 HISTORY OF VIRGINIA I (3 cr.) Examines the cultural, political, and economic history of the Commonwealth from its beginning to the present. Part I of II. Lecture 3 hours per week. Prerequisite: ENF 3 or above. May be taken out of sequence.

HIS 282 HISTORY OF VIRGINIA I (3 cr.) Examines the cultural, political, and economic history of the Commonwealth from its beginning to the present. Part II of II. Lecture 3 hours per week. Prerequisite: ENF 3 or above. May be taken out of sequence.

HEALTH INFORMATION MANAGEMENT (HIM)

HIM 143 MANAGING ELECTRONIC BILLING IN A MEDICAL PRACTICE (3 cr.) Presents practical knowledge on use of computer technology in medical practice management. Develops basic skills in preparation of universal billing claim. Explores insurance claim processing issues. Lecture 3 hours per week. Prerequisite: ENF 3 or above.

HEALTH (HLT)

HLT 100 FIRST AID AND CARDIO- PULMONARY RESUSCITATION (2 cr.) Focuses on principles and techniques of safety, first aid, and cardio-pulmonary resuscitation. Lecture 2 hours per week. Prerequisite: ENF 3 or above.

HLT 105 CARDIOPULMONARY RESUSCITATION (1 cr.) Provides training in coordinated mouth-to-mouth artificial ventilation and chest compression, choking, life-threatening emergencies, and sudden illness. Lecture 1 hour per week. Equivalent to EMS 100.

HLT 106 FIRST AID AND SAFETY (2 cr.) Focuses on the principles and techniques of safety and first aid. Lecture 2 hours per week. Prerequisites: ENF 3 or above.

HLT 109 CPR RECERTIFICATION (1 cr.) Provides training in coordinated mouth-to- mouth artificial ventilation and chest compression, choking, life-threatening emergencies, and sudden illness. Lecture 1 hour per week.

HLT 115 INTRODUCTION TO PERSONAL AND COMMUNITY HEALTH (1 cr.) Introduces and focuses on the principles of personal and community health. Lecture 1 hour per week. Prerequisite: ENF 3 or above.

HLT 116 INTRODUCTION TO PERSONAL WELLNESS CONCEPTS (3 cr.) Introduces students to the dimensions of wellness including the physical, emotional, environmental, spiritual, occupational, and social components. Lecture 3 hours per week. Prerequisite: ENF 3 or above.

HLT 138 – PRINCIPLES OF NUTRITION
Studies nutrient components of food, including carbohydrates, fats, proteins, vitamins, minerals and water. Provides a behavioral approach to nutrient guidelines for the development and maintenance of optimum wellness. Lecture 1-2 hours per week. 1-2 credits

HLT 141 INTRODUCTION TO MEDICAL TERMINOLOGY (1 cr.) Focuses on medical terminology for students preparing for careers in the health professions. Lecture 1 hours per week. Prerequisite: ENF 3 or above.

HLT 143 MEDICAL TERMINOLOGY I (3 cr.) Provides an understanding of medical abbreviations and terms. Includes the study of prefixes, suffixes, word stems, and technical terms with emphasis on proper spelling, pronunciation and usage. Emphasizes more complex skills and techniques in understanding medical terminology. Part I of II. Lecture 3 hours per week. Prerequisite: ENF 3 or above.

HLT 170 INTRODUCTION TO MASSAGE (1 cr.)
Introduces the student to the field of massage therapy. Student practices basic Swedish massage strokes, aromatherapy, effleurage, petrissage and friction, as well as indications and contra-indication for massage. Lecture 1 hour per week. Co-requisite: ~~HLT 180,~~ NAS 150

HLT 180 THERAPEUTIC MASSAGE I (3 cr.) Introduces the student to the history and requirements for massage therapy. Covers the terms and practice of massage with introduction to equipment, safety, and ethics as well as massage movements and techniques. Includes information about the benefits of massage, contraindications, client interview, client-therapist relationship, draping, good body mechanics, and anatomical landmarks. Basic massage techniques are blended into a relaxing, health enhancing full-body session preparing the students for their student clinical experience. Lecture 1 hour. Laboratory 6 hours. Total 7 hours per week. Prerequisites: ENF 3 or above, MTE 1-2. Co-requisite HLT 170, NAS 150.

HLT 220 CONCEPTS OF DISEASE (3 cr.) Emphasizes general principles, classifications, causes, and treatments of selected disease processes. Intended primarily for students enrolled in health technology programs. Lecture 3 hours per week. Prerequisite: A Placement of ENF 3 or above; Co-requisite HLT 281.

HLT 230 PRINCIPLES OF NUTRITION AND HUMAN DEVELOPMENT (3 cr.) Teaches the relationship between nutrition and human development. Emphasizes nutrients, balanced diet, weight control, and the nutritional needs of an individual. Lecture 3 hours per week. Prerequisite: ENF 3 or above.

HLT 250 GENERAL PHARMACOLOGY (3 CR.)
Emphasizes general pharmacology for the health related professions covering general principles of drug actions/reactions, major drug classes, specific agent within each class, and routine mathematical calculations needed to determine desired dosages. Lecture 3 hours per week.

HLT 261 BASIC PHARMACY I (3 cr.) Explores the basics of general pharmacy, reading prescriptions, symbols, packages, pharmacy calculations. Teaches measuring compounds of drugs, dosage forms, drug laws, and drug classifications. Part I of II. Lecture 3 hours per week. Prerequisites: A Placement of ENF 3 or above and MTE 1-3; Co-requisites: MTH 126, HLT 263.

HLT 262 BASIC PHARMACY II (3 cr.) Explores the basics of general pharmacy, reading prescriptions, symbols, packages, pharmacy calculations. Teaches measuring compounds of drugs, dosage forms, drug laws, and drug classifications. Part II of II. Lecture 3 hours per week. Prerequisites: A Placement of ENF 3 or above and MTH 126, HLT 264.

HLT 263 BASIC PHARMACY 1 LAB (1 cr.) Provides practical experience to supplement instruction in HLT 261 Should be taken concurrently with HLT 261-262, in appropriate curricula, as identified by the college. Part I of II. Laboratory 3 hours per week. Co-requisite with HLT 261.

HLT 264 BASIC PHARMACY 2 LAB (1 cr.)
Provides practical experience to supplement instruction in HLT261-262. Should be taken

concurrently with HLT 261-262, in appropriate curricula, as identified by the college. Part II of II. Laboratory 3 hours per week. Co-requisite: HLT 262.

HLT 280 THERAPEUTIC MASSAGE II (3 cr.) Introduces the student to the history and requirements for massage therapy. Covers the terms and practice of massage with introduction to equipment, safety, and ethics as well as massage movements and techniques. Includes information about the benefits of massage, contraindications, client interview, client-therapist relationship, draping, good body mechanics, and anatomical landmarks. Basic massage techniques are blended into a relaxing, health enhancing full-body session preparing the student for their student clinical experience. Prerequisite: HLT 180/HLT 170. Co-requisite PTH 151. Lecture 1 hr. Laboratory 6 hours Total 7 hours per week.

HLT 281 THERAPEUTIC MASSAGE III (3 cr.) Introduces the concept of consultation, client management, session design, and integration of specific therapeutic approaches into a full-body session. Students learn to give specific therapeutic attention to the regions of the back, neck and torso. Using knowledge of muscle anatomy, students perform more advanced massage techniques to address hypertonicity, chronic ischemia, trigger points, fibrotic tissue, adhesions and scar tissue. Includes common clinical applications in the body regions covered and the integration of specific techniques into a full-body session. Prerequisite: HLT 280, PTH 151. Lecture 1 hour. Laboratory 6 hours. Total 7 hours per week.

HOTEL-RESTAURANT-INSTITUTIONAL MANAGEMENT (HRI)

HRI 106 PRINCIPLES OF CULINARY ARTS I-II (3 cr.) Introduces the fundamental principles of food preparation and basic culinary procedures. Stresses the use of proper culinary procedures combined with food science, proper sanitation, standards of quality for food items that are made, and proper use and care of kitchen equipment. Part I of II. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week. Prerequisite: A placement of ENF 3 or above, MTE 1-3.

HRI 119 APPLIED NUTRITION FOR FOOD SERVICE (3 cr.) Studies food composition, nutrition science, and application of nutrition principles taught by the food service professional. Provides the student with a basic understanding of human nutrition and application of nutrition in the service of commercially prepared meals. Lecture 3 hours per week. Prerequisite: A placement of ENF 3 or above, MTE 1-3.

HRI 126 THE ART OF GARNISHING (1 cr.) Focuses on the relationship between colors and shapes and how they pertain to garnishes. Provides student with knowledge to create impressive presentations. Lecture 1 hour per week.

HRI 128 PRINCIPLES OF BAKING (3 cr.) Instructs the student in the preparation of breads, pastries, baked desserts, candies, frozen confections, and sugar work. Applies scientific principles and techniques of baking. Promotes the knowledge/skills required to prepare baked items, pastries and confections. Prerequisite: HRI 120 or equivalent. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week. Prerequisite: Placement of ENF 3 or above, MTE 1-3.

HRI 134 FOOD AND BEVERAGE SERVICE MANAGEMENT (3 cr.) Provides a conceptual and technical framework for managing the service of meals in a variety of commercial settings. Studies the integration of production and service delivery, guest contact dynamics, reservations management and point-of-sale systems. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week. Prerequisite: Placement of ENF 3 or above, MTE 1-3.

HRI 145 GARDE MANGER (3 cr.) Studies garde manger, the art of decorative cold food preparation and presentation. Provides a detailed practical study of cold food preparation and artistic combination and display of cold foods. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week. Prerequisite: A placement of ENF 3 or above, MTE 1-3.

HRI 154 PRINCIPLES OF HOSPITALITY MANAGEMENT (3 cr.) Presents basic understanding of the hospitality industry by tracing the industry's growth and development, reviewing the organization and management of lodging, food, and beverage operations, and focusing on industry opportunities and future trends. Lecture 3 hours per week. Prerequisite: A placement of ENF 3 or above, MTE 1-3.

HRI 158 SANITATION AND SAFETY (3 cr.) Covers the moral and legal responsibilities of management to insure a sanitary and safe environment in a food service operation. Emphasizes the causes and prevention of food borne illnesses in conformity with federal, state and local guidelines. Focuses on OSHA standards in assuring safe working conditions. Lecture 3 hours per week. Prerequisite: A placement of ENF 3 or above, MTE 1-3.

HRI 190 COORDINATED INTERNSHIP (3 cr.) Supervises on-the-job training in selected business, industrial or service firms coordinated by the college. Credit/practice ratio not to exceed 1:5 hours. May be repeated for credit. Prerequisite: A placement of ENF 3 or above, MTE 1-3.

HRI 206 INTERNATIONAL CUISINE (3 cr.) Introduces the concepts of cultural differences and similarities and the preparation of the food specialties of the major geographical areas of the world. Focuses on emerging cuisines as they become popular. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week. Prerequisite: A placement of ENF 3 or above, MTE 1-3.

HRI 207 AMERICAN REGIONAL CUISINE (3 cr.) Studies the distinct regional cooking styles of America and its neighbors. Emphasizes the indigenous ingredients as well as the cultural aspect of each region's cooking style. Includes the preparation of the various regional foods. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week. Prerequisite: A placement of ENF 3 or above, MTE 1-3.

HRI 218 FRUIT, VEGETABLE, AND STARCH PREPARATION (3 cr.) Instructs the student in the preparation of fruits, vegetables, grains, cereals, legumes and farinaceous products. Promotes the knowledge/skills necessary to prepare menu items from fruits, vegetables, and their byproducts, and to select appropriate uses as meal components. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week. Prerequisite: A placement of ENF 3 or above, MTE 1-3.

HRI 219 STOCK, SOUP, AND SAUCE PREPARATION (3 cr.) Instructs the student in the preparation of stocks, soups, and sauces. Promotes the knowledge/skills to prepare stocks, soups, and sauces, and to select appropriate uses as meal components. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week. Prerequisite: A placement of ENF 3 or above, MTE 1-3.

HRI 220 MEAT, SEAFOOD, AND POULTRY PREPARATION (3 cr.) Provides the study and preparation of meat, poultry, shellfish, fish, and game. Promotes the knowledge/skills required to select appropriate use of these foods as meal components. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week. Prerequisite: A placement of ENF 3 or above, MTE 1-3.

HRI 251 FOOD AND BEVERAGE COST CONTROL I (3 cr.) Presents methods of pre- cost and pre-control as applied to the menu, purchasing, receiving, storing, issuing, production, sales and service which result in achievement of an operation's profit potential. Emphasizes both manual and computerized approaches. Part I of II. Lecture 3 hours per week. Prerequisite: A placement of ENF 3 or above, MTE 1-3.

HRI 252 FOOD AND BEVERAGE COST CONTROL II (3 cr.) Presents methods of pre- cost and pre-control as applied to the menu, purchasing, receiving, storing, issuing, production, sales and service which result in achievement of an operation's profit potential. Emphasizes both manual and computerized approaches. Part II of II. Lecture 3 hours per week. Prerequisite: A placement of ENF 3 or above, MTE 1-3.

HRI 256 PRINCIPLES AND APPLICATIONS OF CATERING (3 cr.) Analyzes and compares the principles of on-premise and off- premise catering. Includes student presentations in a series of catered functions where they assume typical managerial/ employee positions emphasizing planning, organizing, operating, managing and evaluating. Prerequisite divisional approval. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week. Prerequisite: A placement of ENF 3 or above, MTE 1-3.

HRI 290 COORDINATED INTERNSHIP (2 cr.) Supervises on-the-job training in selected business, industrial or service firms coordinated by the college. Credit/practice ratio not to exceed 1:5 hours. May be repeated for credit. Prerequisite: A placement of ENF 3 or above, MTE 1-3.

HORTICULTURE (HRT)

HRT 100 INTRODUCTION TO HORTICULTURE (3cr.) Introduces commercial horticulture industry with emphasis on career opportunities. Examines equipment, facilities, and physical arrangements of production, wholesale and retail establishments. Surveys individual areas within horticulture industry. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week. Prerequisite: ENF 3 or above.

HRT 110 PRINCIPLES OF HORTICULTURE (3 cr.) Introduces concepts of plant growth and development. Covers horticultural practices, crops and environmental

factors affecting plant growth. Lecture 3 hours per week. Prerequisite: ENF 3 or above.

HRT 115 PLANT PROPAGATION (3 cr.) Teaches principles and practices of plant propagation. Examines commercial and home practices. Provides experience in techniques using seed-spores, cuttings, grafting, budding, layering and division. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week. Prerequisite: ENF 3 or above.

HRT 190 COORDINATED INTERNSHIP (2 cr) Supervises on-the-job training in selected business, industrial or service firms coordinated by the college. Credit/practice ratio not to exceed 1:5 hours. May be repeated for credit. Prerequisite: ENF 3 or above.

HRT 201 LANDSCAPE PLANTS I (3 cr.) Studies landscape use of plants. Considers ornamental value, growth habit, identification, and limitations. Part I of II. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week. Prerequisite: ENF 3 or above.

HRT 226 GREENHOUSE MANAGEMENT (3 cr.) Discusses the theoretical and applied practices of managing a greenhouse facility. Emphasizes greenhouse construction and design, environmental control, energy conservation, and related topics. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week. Prerequisite: ENF 3 or above.

HRT 259 - ARBORICULTURE (3 cr.) Studies the techniques of tree care. Covers surgery, pruning, insect and disease recognition and control, fertilization, cabling, and lightning rod installation. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week. Prerequisite: ENF 3 or above.

HRT 275 LANDSCAPE CONSTRUCTION AND MAINTENANCE (3 cr.) Examines practical applications of commercial landscape construction techniques, and materials used. Covers construction, planting, and maintenance. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week. Prerequisite: ENF 3 or above.

HUMAN SERVICES (HMS)

HMS 100 INTRODUCTION TO HUMAN SERVICES (3 cr.) Introduces human service agencies, roles and careers. Presents an historical perspective of the field as it relates to human services today. Additional topics include values clarification and needs of target populations. Lecture 3 hours per week. Prerequisites: ENF 3 or above.

HMS 162 COMMUNICATION SKILLS FOR HUMAN SERVICES PROFESSIONALS (3 cr.) Covers basic written and verbal communication skills, including, listening skills, interviewing techniques, and completing written documentation to professional standards. Lecture 3 hours per week. Prerequisites: ENF 3 or above.

HMS 195 INTRODUCTION TO DEVELOPMENTAL DISABILITIES (3 cr.) Presents an overview, history, and current philosophy of developmental disabilities programs. Provides descriptions and examines causes of developmental disabilities, identifies intervention strategies, promotes social and legal advocacy, explores employment and career opportunities. Lecture 3 hours per week. Prerequisites: ENF 3 or above.

HMS 236 – GERONTOLOGY (3 cr.) Examines the process of aging; its implications in relation to health, recreation, education, transportation, meaningful work or activity, and to community resources. Emphasizes experiencing the aging process, facilitating retirement, and application of the helping relationship to work with older adults. Lecture 3 hours per week.

HMS 251 SUBSTANCE ABUSE I (3 cr.) Provides knowledge, skills, and insight for working in drug and alcohol abuse programs. Emphasizes personal growth and client growth measures in helping relationships. Stresses various methods of individual and group techniques for helping the substance abuser. Lecture 3 hours per week. Prerequisites: ENF 3 or above.

HMS 290 COORDINATED INTERNSHIP (3 cr.) Supervises on-the-job training in selected business, industrial or service firms coordinated by the college. Credit/practice ratio not to exceed 1:5 hours. May be repeated for credit. Variable hours.

INDUSTRIAL ENGINEERING TECHNOLOGY (IND)

IND 101 QUALITY ASSURANCE TECHNOLOGY I (3 cr.) Studies principles and techniques of quality engineering for the management, design engineering economics, production, and assurance of quality. Emphasizes fundamentals of total quality assurance for product and process control. May include design review, fundamentals of statistics procurement control, sampling and control chart systems, quality reporting, process capability analysis, tool and gauge control, document control, or troubleshooting quality control. Part I of II. Lecture 3 hours per week. Prerequisites: ENF 3 or above, MTE 1-3.

IND 125 INSTALLATION AND PREVENTIVE MAINTENANCE (3 cr.) Studies practices in the installation of machinery, including mounting, grouting, leveling, and alignment. Examines methods of preventive maintenance including inspection, scheduled maintenance, controls, record keeping, repair parts stocking, and safety considerations. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

IND 181 WORLD CLASS MANUFACTURING (3 cr.) Studies the principles and applications of the globalization of industry. Emphasizes the fundamentals of interpersonal/team, process, organization skills, total quality tools for continuous improvement, statistical process control, manufacturing resource planning and just- in-time.

IND 195 INTRODUCTION TO MANUFACTURING AND ADVANCED FILMS TECHNOLOGY (3 cr.) Introduces basic concepts and skills of the Advanced Manufacturing and Advanced Films Technology fields. Presents discussion of manufacturing career opportunities and industry practices with specific emphasis on the history, purpose, practice and organization of the advanced films industry. Introduces the foundation mathematics for industrial measurements, English/SI system conversions and statistical process control. Covers concepts of automated system integration, quality assurance, teamwork and positive work ethics. Lecture 3 hours per week.

IND 243 - PRINCIPLES AND APPLICATIONS OF MECHATRONICS (3 cr.) Introduces terminology and principles related to Mechatronic system design and application. Integrates concepts of electrical/ electronic, mechanical and computer technologies in the development, setup, operation and troubleshooting of automated products and systems. Covers breakdown of various automated manufacturing operations with emphasis on system planning, development and troubleshooting processes. Prerequisite: EGR 277, MEC 165 and MEC 140 or ELE 140. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

IND 290 COORDINATED INTERNSHIP (1-5 cr.) Supervised on-the-job training in selected business, industrial or service firms coordinated by the college. Credit/practice ratio not to exceed 1:5 hours. May be repeated for credit. Variable hours per week.

IND 295 TOPICS IN ADVANCED FILMS TECHNOLOGY (3 cr.) Introduces the web coating process, including formulating product and raw materials, mixing and solution handling, feed systems, coating application process, coating equipment, substrates, and drying. Covers dyeing and instrumentation concepts, process measurements and monitoring, and web winding. Presents basic concepts of lean manufacturing and Six Sigma as relates to troubleshooting and problem solving. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week

INFORMATION TECHNOLOGY-DESIGN & DATABASE (ITD)

ITD 110 WEB PAGE DESIGN I (3 cr.) Stresses a working knowledge of web site designs, construction, and management using HTML, or XHTML. Includes headings, lists, links, images, image maps, tables, forms, and frames. Lecture 3 hours per week.

ITD 112 DESIGNING WEB PAGE GRAPHICS (3 cr.) Explores the creation of digital graphics for web design. Include basic design elements such as color and layout will be explored utilizing a computer graphics program(s). Lecture 3 hours per week.

ITD 130 - DATABASE FUNDAMENTALS (3 cr.) Introduces the student to Relational Database and Relational Database theory. Includes planning, defining and using a database; table design, linking, and normalization; types of databases, database description and definition. Lecture 3 hours per week.

ITD 210 WEB PAGE DESIGN II (3 cr.) Incorporates advanced techniques in web site planning, design, usability, accessibility, advanced site management, and maintenance utilizing web editor software(s). Lecture 3 hours per week.

INFORMATION TECHNOLOGY-ESSENTIALS (ITE)

ITE 101 INTRODUCTION TO MICROCOMPUTERS (2 cr.) Examines concepts and terminology related to microcomputers and introduces specific uses of microcomputers. Lecture 2 hours per week.

ITE 115 INTRO. TO COMPUTER APPLICATIONS & CONCEPTS (3 cr.) Covers computer concepts and internet skills and use a software suite which includes word processing, spreadsheet, database, and presentation software to demonstrate skills.

Recommended prerequisite keyboarding skills. Lecture 3 hours per week. Prerequisites: ENF 2 or above, MTE 1-3.

ITE 119 INFORMATION LITERACY (3 cr.) Presents the information literacy core competencies focusing on the use of information technology skills. Skills and knowledge will be developed in database searching, computer applications, information security and privacy, and intellectual property issues. Lecture 3 hours per week. Prerequisite: ENF 3 or above.

ITE 130 INTRODUCTION TO INTERNET SERVICES (3 cr.) Provides students with a working knowledge of Internet terminology and services including e-mail, WWW browsing, search engines, ftp, file compression, and other services using a variety of software packages. Provides instruction for basic web page construction. Lecture 3 hours per week.

ITE 140 SPREADSHEET SOFTWARE (3 cr.) Covers the use of spreadsheet software to create spreadsheets with formatted cells and cell ranges, control pages, multiple sheets, charts, and macros. Topics include type and edit text in a cell, enter data on multiple worksheets, work with formulas and functions, create charts, pivot tables, and styles, insert headers and footers, and filter data. Covers MOS Excel objectives. Lecture 3 hours per week. Prerequisite: ITE 115.

ITE 150 DESKTOP DATABASE SOFTWARE (3 cr.) Incorporates instruction in planning, defining, and using a database; performing queries; producing reports; working with multiple files; and concepts of database programming. Include database concepts, principles of table design and table relationships, entering data, creating and using forms, using data from different sources, filtering, and creating mailing labels. Covers MOS Access certification objectives. Lecture 3 hours per week. Prerequisite: ITE 115.

ITE 199 CERTIFICATION PREPARATION (1 cr.) Serves as a review of objectives for a specific Certification. Uses certification test preparation software, when available, in conjunction with a faculty resource person. May be repeated for credit. Lecture 1 hour per week.

INFORMATION TECHNOLOGY- NETWORKING (ITN)

ITN 106 MICROCOMPUTER OPERATING SYSTEMS (3 cr.) Teaches use of operating system utilities and multiple-level directory structures, creation of batch files, and configuration of microcomputer environments. May include a study of graphical user interfaces. Maps to A+ Software Certification. Lecture 3 hours per week.

ITN 107 PERSONAL COMPUTER HARDWARE AND TROUBLESHOOTING (3 cr.) Includes specially designed instruction to give a student a basic knowledge of hardware and software configurations. Includes the installation of various peripheral devices as well as basic system hardware components. Maps to A+ Hardware Certification. Lecture 3 hours per week.

ITN 154 NETWORK FUNDAMENTALS, ROUTER BASICS, AND CONFIGURATION (ICND1) - CISCO (3-cr.) Provides instruction in the fundamentals of networking environments, the basics of router operations, and basic router configuration. Lecture 3 hours. Laboratory 2 hours. Total 5 hours per week.

ITN 154L NETWORK FUNDAMENTALS, ROUTER BASICS, AND CONFIGURATION (ICND1) - LABORATORY (1 cr.) Provides problem solving experience to supplement instruction in Networking Fundamentals - Cisco. Co-requisite: ITN 154. Laboratory 2 hours per week.

ITN 155 - SWITCHING, WIRELESS, AND WAN TECHNOLOGIES (ICND2) - CISCO (3 cr.) Provides the skills and knowledge to install, operate, and troubleshoot a small- to-medium sized branch office enterprise network, including configuring several switches and routers, configuring wireless devices, configuring VLANS, connecting to a WAN, and implementing network security. Lecture 3 hours. Laboratory 2 hours. Total 5 hours per week.

ITN 155L - SWITCHING, WIRELESS, AND WAN TECHNOLOGIES (ICND2) - CISCO LABORATORY (1 cr.) Provides problem solving experience to supplement instruction in Introductory Routing-Cisco. Co-requisite: ITN 155. Laboratory 2 hours per week.

ITN 260 - NETWORK SECURITY BASICS (3 cr.) Provides instruction in the basics of network security in depth. Includes security objectives, security architecture, security models and security layers; risk management, network security policy, and security training. Includes the give security keys, confidentiality integrity, availability, accountability and auditability. Lecture 3 hours per week.

INFORMATION TECHNOLOGY- PROGRAMMING (ITP)

ITP 110 VISUAL BASIC PROGRAMMING I (3 cr.) Involves instruction in fundamentals of event-driven programming using Visual Basic. Emphasizes program construction, algorithm development, coding, debugging, and documentation of graphical user interface applications. Lecture 3 hours per week.

ITP 120 JAVA PROGRAMMING I (4 cr.) Entails instruction in fundamentals of object-oriented programming using Java. Emphasizes program construction, algorithm development, coding, debugging, and documentation of console and graphical user interface applications. Lecture 4 hours per week.

ITP 160 INTRODUCTION TO GAME DESIGN AND DEVELOPMENT (3 cr.) Introduces object-oriented game design and development. Provides overview of the electronic game design and development process and underlines the historical contest, content creation strategies, game careers, and future trends in the industry. Utilizes a game language environment to introduce game design, object-oriented paradigms, software design, software development and product testing. Teaches skills of writing a game design document and creating a game with several levels and objects. Integrate 2D animations, 3D models, sound effects, and background music as well as graphic backgrounds. Lecture 3 hours per week.

ITP 220 JAVA PROGRAMMING II (4 cr.) Imparts instruction in application of advanced object-oriented techniques to application development using Java. Emphasizes database connectivity, inner classes, collection classes, networking, and threads. Lecture 4 hours per week. Prerequisite: ITP 120.

INSTRUMENTATION (INS)

INS 230 INSTRUMENTATION I (3 CR.) Presents the fundamental scientific principles of process control including temperature, pressure, level, and flow measurements. Topics include transducers, thermometers, and gauges are introduced along with calibration. Prerequisites: ETR 140. Lecture 2 hours. Laboratory 2 hours per week. Total 4 hours per week.

JAPANESE (JPN)

JPN 101 - BEGINNING JAPANESE I (5 cr.) Develops the understanding, speaking, reading, and writing of Japanese, and emphasizes the structure of the language. Part I of II. Lecture 5 hours per week. May include one additional hour of oral practice per week.

JPN 102 - BEGINNING JAPANESE II (5 cr.) Develops the understanding, speaking, reading, and writing of Japanese, and emphasizes the structure of the language. Part II of II. Lecture 5 hours per week. May include one additional hour of oral practice per week.

LEGAL ADMINISTRATION (LGL)

LGL 110 INTRODUCTION TO LAW AND THE LEGAL ASSISTANT (3 cr.) Introduces various areas of law in which a legal assistant may be employed. Includes study of the court system (Virginia and federal) as well as a brief overview of criminal law, torts, domestic relations, evidence, ethics, the role of the legal assistant and other areas of interest. Lecture 3 hours per week. Prerequisites: ENF 3 or above.

LGL 115 REAL ESTATE LAW FOR LEGAL ASSISTANTS (3 cr.) Studies law of real property, and gives in-depth survey of more common types of real estate transactions and conveyances such as deeds, contracts, leases, and deeds of trust. Focuses on drafting these various instruments and studies the system of recording and search of public documents. Lecture 3 hours per week. Prerequisites: ENF 3 or above.

LGL 117 FAMILY LAW (3 cr.) Studies elements of a valid marriage, grounds for divorce and annulment, separation, defenses, custody, support, adoptions, and applicable tax consequences. Includes property settlement, pre- and ante-nuptial agreements, pleadings, and rules of procedure. May include specific federal and Virginia consumer laws. Lecture 3 hours per week. Prerequisites: ENF 3 or above.

LGL 125 LEGAL RESEARCH (3 cr.) Provides an understanding of various components of a law library, and emphasizes research skills through the use of digests, encyclopedias, reporter systems, codes, Shepard's Citations, ALR, and other research tools. May include overview of computer applications and writing projects. Prerequisite or co-requisite: LGL 110. Lecture 3 hours per week. Prerequisites: ENF 3 or above, MTE 1-3.

LGL 126 LEGAL WRITING (3 cr.) Studies proper preparation of various legal documents, including legal memoranda, letters, and pleadings. Involves practical applications. May include case and

appellate briefs. Lecture 3 hours per week. Prerequisite: LGL 125. English 111 or permission from instructor.

LGL 200 ETHICS FOR THE LEGAL ASSISTANT (1 cr.) Examines general principles of ethical conduct applicable to legal assistants. Includes the application of rules of ethics to the practicing legal assistant. Lecture 1 hour per week.

LGL 215 TORTS (3 cr.) Studies fundamental principles of the law of torts. May include preparation and use of pleadings and other documents involved in the trial of a civil action. Emphasizes personal injury, products liability, and malpractice cases. Lecture 3 hours per week.

LGL 219 BASICS OF LITIGATION SUPPORT (3 cr.) Provides a practical understanding and knowledge of litigation support services, including docket control, case management, document production and organization. Examines the use of privileged documents and various court clerks' offices. Focuses on multiple party case management. Lecture 3 hours per week.

LGL 225 ESTATE PLANNING AND PROBATE (3 cr.) Introduces various devices used to plan an estate, including wills, trust, joint ownership and insurance. Considers various plans in light of family situations and estate objectives. Focuses on practices involving administration of an estate including taxes and preparation of forms. Lecture 3 hours per week.

LGL 226 REAL ESTATE ABSTRACTING (3 cr.) Reviews aspects of abstracting title to real estate, recordation of land transactions, liens, grantor-grantee indices, warranties, covenants, restrictions, and easements. Prerequisite: LGL 115. Lecture 3 hours per week.

LGL 230 LEGAL TRANSACTIONS (3 cr.) Presents an in-depth study of general contract law, including formation, breach, enforcement, and remedies. May include an overview of UCC sales, commercial paper, and collections. Lecture 3 hours per week.

MARKETING (MKT)

MKT 100 PRINCIPLES OF MARKETING (3 cr.) Presents principles, methods, and problems involved in marketing to consumers and organizational buyers. Discusses problems and policies connected with distribution and sale of products, pricing, promotion, and buyer motivation. Examines variations of marketing research, legal, social, ethical, e-commerce, and international considerations in marketing. Lecture 3 hours per week. Prerequisite: ENF 3 or above.

MKT 160 MARKETING FOR SMALL BUSINESS (3 cr.) Presents the development of the marketing mix for small business. Includes areas such as product development, pricing, promotion, salesmanship, customer relations, and consumer behavior. Lecture 3 hours per week. Prerequisite: ENF 3 or above.

MKT 170 CUSTOMER SERVICE (2 cr.) Introduces students to the concepts of marketing as they relate to customer service. Teaches development of customer service training and implementation of strategies to improve customer relations and service. Includes lecture, role-playing, and case studies. Lecture 2 hours per week.

MKT 200 CONSUMERS, MARKETING, AND SOCIETY (3 cr.) Presents an overview of the marketing system as it applies to the needs and wants of consumers and the purchasing process, along with consideration of the role of government in consumer affairs. Assists the individual in becoming an informed consumer and better business manager through an understanding of rights and obligations in consumer transactions. Lecture 3 hours per week.

MKT 260 CUSTOMER SERVICE MANAGEMENT (3 cr.) Examines the role of customer service in achieving a firm's long- term goals; discusses the basic principles of effective customer service; explores the tasks and responsibilities of a customer service manager. Includes such topics as purpose of customer service; establishment of customer service goals and policies; recruitment, selection and training of customer service employees; motivation techniques; empowering employees for better decision making; and evaluation of customer service employees and program. Lecture 3 hours per week. Prerequisite: ENF 3 or above.

MATH ESSENTIALS (MTE)

MTE 1 OPERATIONS WITH POSITIVE FRACTIONS (1 cr.) Includes operations and problem solving with proper fractions, improper fractions, and mixed numbers without the use of a calculator. Emphasizes applications and includes U. S. customary units of measure. Credit is not applicable toward graduation. Lecture 1 hour per week. Prerequisite(s): Qualifying placement score.

MTE 2 OPERATIONS WITH POSITIVE DECIMALS AND PERCENTS (1 cr.) Includes operations and problem solving with positive decimals and percents. Emphasizes applications and includes U.S. customary and metric units of measure. Credit is not applicable toward graduation. Prerequisite(s): MTE 1 or qualifying placement score. Lecture 1 hour per week.

MTE 3 ALGEBRA BASICS (1 cr.) Includes basic operations with algebraic expressions and solving simple algebraic equations using signed numbers with emphasis on applications. Credit is not applicable toward graduation. Lecture 1 hour per week. Prerequisite: MTE 2 or qualifying placement score

MTE 4 FIRST DEGREE EQUATIONS AND INEQUALITIES IN ONE VARIABLE (1 cr.) Includes solving first degree equations and inequalities containing one variable, and using them to solve application problems. Emphasizes applications and problem solving. Credit is not applicable toward graduation. Lecture 1 hour per week. Prerequisite(s): MTE 3 or qualifying placement score.

MTE 5 LINEAR EQUATIONS, INEQUALITIES AND SYSTEMS OF LINEAR EQUATIONS IN TWO VARIABLES (1 cr.) Includes finding the equation of a line, graphing linear equations and inequalities in two variables and solving systems of two linear equations. Emphasizes writing and graphing equations using the slope of the line and points on the line, and applications. Credit is not applicable toward graduation. Lecture 1 hour per week. Prerequisite(s): MTE 4 or qualifying placement score.

MTE 6 EXPONENTS, FACTORING AND POLYNOMIAL EQUATIONS (1 cr.) The student will learn to perform operations on exponential expressions and polynomials. Students will also learn techniques to factor polynomials and use these techniques to solve polynomial equations. Emphasis should be on learning all the different factoring methods, and solving application problems using polynomial equations. Credit is not applicable toward graduation. Lecture 1 hour per week. Prerequisite(s): MTE 5 or qualifying placement score.

MTE 7 RATIONAL EXPRESSIONS AND EQUATIONS (1 cr.) Includes simplifying rational algebraic expressions, solving rational algebraic equations and solving applications that use rational algebraic equations. Credit is not applicable toward graduation. Lecture 1 hour per week Prerequisite(s): MTE 6 or qualifying placement score.

MTE 8 RATIONAL EXPONENTS AND RADICALS (1 cr.) Includes simplifying radical expressions, using rational exponents, solving radical equations and solving applications using radical equations. Credit is not applicable toward graduation. Lecture 1 hour per week. Prerequisite(s): MTE 7 or qualifying placement score.

MTE 9 FUNCTIONS, QUADRATIC EQUATIONS AND PARABOLAS (1 cr.) Includes an introduction to functions in ordered pair, graph, and equation form. Also introduces quadratic functions, their properties and their graphs. Credit is not applicable toward graduation. Lecture 1 hour per week. Prerequisite(s): MTE 8 or qualifying placement score.

DEVELOPMENTAL MATHEMATICS - TECHNOLOGY BASED

MTT 1 DEVELOPMENTAL MATHEMATICS (TECHNOLOGY-BASED) I (1 cr.) Covers mathematics topics in a technology-based setting to prepare students for the study of college level mathematics courses and curricula. Designed for the study of one developmental math unit prescribed by the student's placement test results. Credits not applicable toward graduation. Placement scores requiring the student to complete one developmental math unit.

MATHEMATICS (MTH)

MTH 103 APPLIED TECHNICAL MATHEMATICS 1 (3 cr.) Presents a review of arithmetic, elements of algebra, geometry, and trigonometry. Directs applications to specialty areas. Lecture 3 hours per week. Prerequisites: MTE 1-3, Placement of ENF 3 or above.

MTH 120 INTRODUCTION TO MATHEMATICS (3 cr.) Introduces number systems, logic, basic algebra, and descriptive statistics. Prerequisites: a placement recommendation for MTH 120 and one unit of high school mathematics or equivalent. (Intended for occupational/ technical programs.) Lecture 3 hours per week. Prerequisites: MTE 1-3, Placement of ENF 3 or above.

MTH 126 MATH FOR ALLIED HEALTH (3 cr.) Presents scientific notation, precision and accuracy, decimals and percents, ratio and proportion, variation, simple equations, techniques of graphing, use of charts and tables, logarithms, and the metric system.

Prerequisites: a placement recommendation for MTH 126 and one unit of high school mathematics or equivalent. Lecture 2-3 hours per week. 2-3 credits. Prerequisites: MTE 1-3, Placement of ENF 2 or above.

MTH 150 TOPICS IN GEOMETRY (3 cr.) Presents the fundamentals of plane and solid geometry and introduces non- Euclidean geometries and current topics. Prerequisites: a placement recommendation for MTH 150 and Algebra I, Algebra II and Geometry or equivalent. Lecture 3 hours per week. Prerequisites: A placement of ENF 3 or above, MTE 1-5.

MTH 151 MATHEMATICS FOR THE LIBERAL ARTS I (3 cr.) Presents topics in sets, logic, numeration systems, geometric systems, and elementary computer concepts. Lecture 3 hours per week. Prerequisites: MTE 1-5, a placement of ENF 3 or above. MTH 151 and MTH 152 may be taken out of sequence.

MTH 152 MATHEMATICS FOR THE LIBERAL ARTS II (3 cr.) Presents topics in functions, combinatorics, probability, statistics and algebraic systems. Lecture 3 hours per week. Prerequisites: MTE 1-5, a placement of ENF 3 or above. MTH 151 and MTH 152 may be taken out of sequence.

MTH 157 ELEMENTARY STATISTICS (3 cr.) Presents elementary statistical methods and concepts including descriptive statistics, estimation, hypothesis testing, linear regression, and categorical data analysis. (Credit will not be awarded for both MTH 157, MTH 240, or MTH 241.) Prerequisites: MTE 1-5, a placement of ENF 3 or above. Lecture 3 hours per week.

MTH 163 PRECALCULUS I (3 cr.) Presents college algebra, matrices, and algebraic, exponential, and logarithmic functions. Prerequisites: a placement recommendation for MTH 163 and Algebra I, Algebra II, and Geometry or equivalent. (Credit will not be awarded for both MTH 163 and MTH 166.) Lecture 3 hours per week. Prerequisites: MTE 1-9, a placement of ENF 3 or above.

MTH 166 PRECALCULUS WITH TRIGONOMETRY (4 cr.) Presents college algebra, analytic geometry, trigonometry, and algebraic exponential, and logarithmic functions. Prerequisite: MTE 1-9 and placement of ENF 3 or above. (Credit will not be awarded for both MTH 163 and MTH 166.) Lecture 4 hours per week.

MTH 173 CALCULUS WITH ANALYTIC GEOMETRY I (4-5 cr.) Presents analytic geometry and the calculus of algebraic and transcendental functions including the study of limits, derivatives, differentials, and introduction to integration along with their applications. Designed for mathematical, physical and engineering science programs. Prerequisites: MTE 1-9 and placement recommendation for MTH 173 and placement of ENF 3 or above. (Credit will not be awarded for more than one of MTH 173, MTH 175, or MTH 273.) Lecture 4-5 hours per week.

MTH 174 CALCULUS WITH ANALYTIC GEOMETRY II (4 cr.) Continues the study of analytic geometry and the calculus of algebraic and transcendental functions including rectangular, polar, and parametric graphing, indefinite and definite integrals, methods of integration, and power series along with applications. Designed for mathematical, physical, and engineering science programs. Prerequisite: MTH 173 or equivalent. (Credit will not be awarded for more than one of MTH 174, MTH 176, or MTH 274.) Lecture 4-5 hours per week.

MTH 175 CALCULUS OF ONE VARIABLE I (3 cr.) Presents differential calculus of one variable including the theory of limits, derivatives, differentials, anti-derivatives and applications to algebraic and transcendental functions. Designed for mathematical, physical, and engineering science programs. Prerequisites: Prerequisite: a placement of ENF 3 or above, MTE 1-9, a placement recommendation for MTH 175 and four units of high school mathematics including Algebra I, Algebra II, Geometry and Trigonometry or equivalent. (Credit will not be awarded for more than one of MTH 173, MTH 175 or MTH 273.) Lecture 3 hours per week.

MTH 176 CALCULUS OF ONE VARIABLE II (3 cr.) Continues the study of integral calculus of one variable including indefinite integral, definite integral and methods of integration with applications to algebraic and transcendental functions. Designed for mathematical, physical, and engineering science programs. Prerequisite: MTH 175 or equivalent and placement of ENF 3 or above. (Credit will not be awarded for more than one of MTH 174, MTH 176 or MTH 274.) Lecture 3 hours per week.

MTH 177 INTRODUCTORY LINEAR ALGEBRA (2 cr.) Covers matrices, vector spaces, determinants, solutions of systems of linear equations, and eigen values. Designed for mathematical, physical, and engineering science programs. Co-requisite: MTH 175 and placement of ENF 3 or above. Lecture 2 hours per week.

MTH 178 TOPICS IN ANALYTIC GEOMETRY (2 cr.) Covers conic sections, polar and parametric graphing. Designed for mathematical, physical, and engineering science programs. Co-requisite: MTH 176. Prerequisite: placement of ENF 3 or above. Lecture 2 hours per week.

MTH 241 STATISTICS I (3 cr.) Covers descriptive statistics, elementary probability, probability distributions, estimation, and hypothesis testing. Prerequisites: ENF 3 or above, a placement recommendation for MTH 241 and MTH 163 or MTH 166 or equivalent. (Credit will not be awarded for both MTH 240 and MTH 241.) Lecture 3 hours per week.

MTH 242 STATISTICS II (3 cr.) Continues the study of estimation and hypothesis testing with emphasis on correlation ad regression, analysis of variance, chi-square tests, and non-parametric methods. Prerequisites: MTH 241 or equivalent and placement of ENF 3 or above. Lecture 3 hours per week.

MTH 271 APPLIED CALCULUS I (3 cr.) Presents limits, continuity, differentiation of algebraic and transcendental functions with applications, and an introduction to integration. Prerequisite: MTH 163 or MTH 166 or equivalent and placement of ENF 3 or above. (Credit will not be awarded for both MTH 270 and MTH 271.) Lecture 3 hours per week.

MTH 273 - CALCULUS I (4 cr.) Presents topics in differential calculus of one variable including the theory of limits, derivatives, differentials, definite and indefinite integrals and applications to algebraic and transcendental functions. Designed for mathematical, physical, and engineering science programs. Prerequisites: a placement recommendation for MTH 273 and four units of high school mathematics including Algebra I, Algebra II, Geometry and Trigonometry or equivalent and placement of ENF 3 or above. (Credit will not be awarded for more than one of MTH 173, MTH 175, MTH 273.) Lecture 4 hours per week.

MTH 274 CALCULUS II (4 cr.) Covers vectors in three dimensions, definite integrals, methods of integration, indeterminate forms, partial differentiation, and multiple integrals. Designed for mathematical, physical, and engineering science programs. Prerequisite: MTH 273 or equivalent, or MTE 1-9 and placement of ENF 3 or above. (Credit will not be awarded for more than one of MTH 176 or MTH 274). Lecture 4 hours per week.

MECHANICAL ENGINEERING TECHNOLOGY (MEC)

MEC 112 PROCESSES OF INDUSTRY (3 cr.) Analyzes the processes of manufacturing products from materials for industry/ engineering. Includes machining, casting, forming, molding, hot/cold working, chipless machining, and welding. Addresses quality assurance and inspection procedures. Lecture 3 hours per week.

MEC 119 INTRODUCTION TO BASIC CNC AND CAM (3 cr.) Teaches the basic concepts of Computer Numerical Control (CNC) programming of Numerical Control Machinery with emphasis on Computer Aided Manufacturing (CAM)/ Computer Aided Drafting (CAD). Program writing procedures will be based on using the following: basic G-code programming language for CNC machinery, CAD/CAM programming systems to produce correct code for CNC Machinery, basic computer usage, CAD/CAM integration, and Code-to-machine transfer via Distributive Numeric Control (DNC). Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

MEC 140 INTRODUCTION TO MECHATRONICS (3 cr.) Presents foundational concepts in mechatronics including analog and digital electronics, sensors, actuators, microprocessors, and microprocessor interfacing to electro-mechanical systems. Surveys components and measurement equipment used in the design, installation, and repair of mechatronic equipment and circuits. Prerequisite: divisional approval. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

MEC 155 MECHANISMS (3 cr.) Studies the purpose and actions of cams, gear trains, levers, and other mechanical devices used to transmit control. Focuses on motions, linkages, velocities, and acceleration of points within a link mechanism; layout method for designing cams and gear grain. Requires preparation of weekly laboratory reports. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

MEC 165 APPLIED HYDRAULICS, PNEUMATICS AND HYDROSTATICS (3 cr.) Teaches fluid power system design, operation, testing, maintenance and repair. Includes reservoirs, pump connecting

valves, cylinders, pressure regulating valves, flow control valves, hydraulic motors, and introduction to basic hydrostatic hydraulic systems. Prerequisite: MEC 140 or ETR 140. Lecture 2 hours. Laboratory 3hours. Total 5 hours per week.

MEDIA TECHNOLOGY (MET)

MET 293 STUDIES IN (3 cr.) Covers new content not covered in existing courses in the discipline. Allows instructor to explore content and instructional methods to assess the course's viability as a permanent offering. Variable hours per week. 1-5 credits. Prerequisite: ENF 3 or above.

MET 295 TOPICS IN (3 cr.) Provides an opportunity to explore topical areas of interest to or needed by students. May be used also for special honors courses. May be repeated for credit. Variable hours per week. 1-5 credits. Prerequisite: ENF 3 or above.

MENTAL HEALTH (MEN)

MEN 135 HUMAN SERVICES AND THE LAW (3 cr.) Examines current issues in mental health and impact of federal and state laws on delivery of services. Considers issues of civil commitment of the mentally ill and confidentiality and rights of clients. Add a focus on MR clients. Lecture 3 hours per week.

MOTORSPORTS MANAGEMENT AND TECHNOLOGY (MTS)

MTS 95 TOPICS IN MOTORSPORTS (3 cr.) Provides an opportunity to explore topical areas of interest to or needed by students. May be used also for special honors courses. May be repeated for credit.

MTS 100 INTRODUCTION TO MOTORSPORTS MANAGEMENT (3 cr.) Provides a survey of the motorsports industry. Includes history, growth, and economic impact of motorsports. Includes sanctioning organizations, classification and characteristics of vehicles, related to businesses and industries, financial issues, career opportunities, and other motorsports-related topics. Lecture 3 hours per week. Prerequisite: ENF 3 or above. Co-requisite: MTS 95.

MTS 110 INTRODUCTION TO MOTORSPORTS MARKETING (3 cr.) Provides an overview of the principles of marketing goods and services related to the motorsports industry. Includes motorsports promotion, motorsports products, media impact, use of technology in motorsports marketing, motorsports sponsors, hospitality management, public relations, and other topics related to motorsports marketing. Lecture 3 hours per week. Prerequisite: ENF 3 or above. Co-requisite: MTS 95.

MTS 126 MOTORSPORTS TECHNOLOGY II (3 cr.) Introduces the student to charging, ignition systems and fuel systems of Stock car racing. Provides hands-on experience with specialized ignition systems, charging systems, fuel cells, fuel delivery, carburetion, and backup systems. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week. Prerequisite: All developmental English requirements met, MTE 1-3, MTH 103, and MTS 125. Co-requisite: MTS 95 and PHY 131.

MTS 130 MOTORSPORTS STRUCTURAL TECHNOLOGY I (3 cr.) Introduces the student to the basic design and fabrication of a racecar. Develops skills for use of the tools, equipment, and materials in the production of a racecar. Emphasizes safety, accuracy, and aesthetics of the racecar and the work environment. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week. Prerequisite: All Developmental English requirements met, MTE 1-3, MTS 125 and WEL 130. Co-requisite: MTS 95.

MTS 131 MOTORSPORTS STRUCTURAL TECHNOLOGY II (3 cr.) Introduces the student to the design and fabrication of a roll cage. Develops skills in the use of tools, equipment, and materials selection to bend, form, and fabricate the primary structural safety component. Emphasizes NASCAR and other sanctioning bodies' specifications. Lecture 1 hour. Laboratory 4 hours. Total 5 hours per week. Prerequisite: MTS 130. Co-requisite: MTS 95.

MTS 132 MOTORSPORTS STRUCTURAL TECHNOLOGY III (3 cr.) Introduces the student to the design and fabrication of body parts. Develops skills in the use of tools, equipment, and materials selection to bend, form, and fabricate the primary structural safety component. Emphasizes NASCAR and other sanctioning bodies' specifications. Lecture 1 hour. Laboratory 4 hours. Total 5 hours per week. Prerequisite: MTS 130 and MTS 131. Co-requisite: MTS 95.

MTS 135 SHEET METAL FABRICATION (3 cr.) Introduces sheet metal terminology, fabrication, and installation for covering structural framework of race cars. Provides project oriented, problem-based experiences with equipment and machinery used in the Motorsports Industry. Lecture 2 hour, Laboratory 2 hours. Total 4 hours per week. Co-requisite: MTS 95 and MTS 295.

MTS 140 STOCK CAR ENGINES I (3 cr.) Provides a comprehensive study concerning all areas of race engines including cylinder block configuration and classification. Covers principles of race engine operation and subsystems. Included are lubrication systems (both wet and dry sump) and specialized cooling systems. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week. Prerequisites: All developmental English requirements met, and MTH 103 or MTH 163. Co-requisite: MTS 95 and PHY 131.

MTS 150 ENGINE MACHINING PROCESSES I (4 cr.) Introduces general machining techniques and practices relating to engines and fabrication of Stock Car engine parts. Includes applied mathematics operations found in machining race engines. Lecture 2 hours. Laboratory 4 hours. Total 6 hours per week. Prerequisites: All developmental English requirements met, and MTH 103 or MTH 163. Co-requisite: MTS 95 and PHY 131.

MTS 195 HIGH PERFORMANCE ENGINE INDUCTION SYSTEMS (3 cr.) Introduces the concepts and practices of modification in the upper engine systems. Includes carburetion, cylinder heads, intake manifold, valves, and components that supply gas and air to the engine. Hands on experiences will reinforce the research and development stages of the high performance engine horsepower output development. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week. Co-requisite: MTS 95 and PHY 131. Prerequisites: All developmental English requirements met, and MTH 103 or MTH 163.

MTS 205 MOTORSPORTS SAFETY, ENVIRONMENTAL, AND TRANSPORT ISSUES (3 cr.) Provides an overview of the safety, environmental, and transportation issues related to the motorsports industry. Includes workplace regulations; materials handling; transport of vehicles and other equipment; moving complex operations; housing of personnel; DOT regulations; and other issues related to the safety, environment, and transport in the motorsports industry. Lecture 3 hours per week. Prerequisites: ENF 3 or above. Co-requisite: MTS 95.

MTS 210 RACE CAR SETUP I (3 cr.) Introduces the student to basic chassis geometry. Develops skills to square the wheelbase, set ride heights, and establish proper weight distribution. Emphasizes teamwork, communication of settings, and accuracy in set up. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week. Prerequisite: All Developmental English requirements met, MTE 1-3, MTS 131. Co-requisite: MTS 95.

MTS 211 RACE CAR SETUP II (3 cr.) Exposes the student to advanced racecar geometry. Develops skills to engage in on- track adjustments for top performance of the vehicle. Emphasizes application of skills on-site and under race conditions. Lecture 1 hours. Laboratory 4 hours. Total 5 hours per week. Prerequisite: MTS 210. Co-requisite: MTS 95.

MTS 240 STOCK CAR ENGINES II (3 cr.) Introduces the student to the engine short block assembly and proper machining of the cylinder block. Employs various machining techniques needed to bore final size, relieve pressure, and lighten the cylinder block for assembly. Lecture 1 hour. Laboratory 4 hours. Total 5 hours per week. Prerequisites: MTS 140 and MTS 150. Co-requisite: MTS 95.

MTS 241 STOCK CAR ENGINES III (3 cr.) Introduces the student to cylinder head machining and processes related to applications of racecar set-up and repair. Review processes performed in aluminum and cast iron head repair. Introduces stock car valve train flow characteristics and combustion chamber measurements. Lecture 1 hour. Laboratory 4 hours. Total 5 hours per week. Prerequisite: MTS 240. Co- requisite: MTS 95.

MTS 250 ENGINE MACHINING PROCESSES II (3 cr.) Introduces the student to comprehensive machining techniques related to engine and fabrication processes of race engine parts. Demonstrates and performs modern CNC machining operations for race engines. Lecture 1 hour. Laboratory 4 hours. Total 5 hours per week. Prerequisites: MTS 140 and MTS 150. Co- requisite: MTS 95.

MTS 290 COORDINATED INTERNSHIP (2 cr.) Supervises on-the-job training in selected business, industrial or service firms coordinated by the college. Credit/practice ratio not to exceed 1:5 hours. May be repeated for credit. Variable hours.

MTS 295 MACHINING AND WELDING (3 cr.) Introduction to safety procedures, bench work, hand tools, precision measuring instruments, drill presses, cut-off saws, milling machines and lathes. Lecture 3 hours per week. Prerequisites: All Developmental English requirements met, and MTE 1-3. Co-requisite: MTS 95.

MTS 295 INTRODUCTION TO PIT STOP (2 cr.) Introduces the student to the importance of health, wellness and safety procedures for increased performance and reliability in Pit Stop times. Focuses on the basics and speed of chassis adjustments, tire changing, jacking, and gas can process. Lecture 3 hours per week. Co-requisite MTS 95.

MTS 298 PROJECT IN MOTORSPORTS MARKETING (3 cr.) Builds on basic marketing and management principles by applying them to real world Motorsports projects. Students will apply marketing techniques to market Motorsports products and services. Co-requisite: MTS 95.

MTS 298 DYNO ENGINE PERFORMANCE (3 cr.) Introduces the comprehensive use of the Engine Dynamometer within the high performance environment. Includes advanced theory and applications for engine performance factors. Provides hands on experiences with working engines. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week. Co-requisite: MTS 95, MTS 240 and MTS 250.

MUSIC (MUS)

MUS 112 MUSIC THEORY II (4 cr.) Discusses elements of musical construction of scales, intervals, triads, and chord progressions. Develops ability to sing at sight and write from dictation. Introduces the analysis of the Bach chorale style. Expands facility with harmonic dictation and enables the student to use these techniques at the keyboard. Part II of II. Lecture 3 hours. Laboratory 2 hours. Total 5 hours per week. Prerequisite: ENF 3 or above.

MUS 121 MUSIC APPRECIATION I (3 cr.) Increases the variety and depth of the student's interest, knowledge, and involvement in music and related cultural activities. Acquaints the student with traditional and twentieth century music literature, emphasizing the relationship music has as an art form with man and society. Increases the student's awareness of the composers and performers of all eras through listening and concert experiences. Part I of II. Lecture 3 hours per week. Prerequisite: ENF 3 or above.

MUS 135 JAZZ ENSEMBLE (1 cr.) Consists of performance from Standard Jazz and American Songbook Repertoires, including study of ensemble techniques, interpretation, and improvisation. Divisional approval required. May be repeated for credit. (1-2 Cr.) Lecture 0, Lab 3-6 hours. Total 3-6 hours per week. Prerequisite: ENF 3 or above.

MUS 136 APPLIED MUSIC-VOICE (1 cr.) Teaches singing, proper breath control, diction, and development of tone. Studies the standard vocal repertoire. Laboratory 4-8 hours per week. Prerequisite: ENF 3 or above.

MUS 137 CHORUS ENSEMBLE (1 cr.) Ensemble consists of performance from the standard repertoires, including study of ensemble techniques and interpretation. May be repeated for credit. Laboratory 3-6 hours per week. Prerequisite: ENF 3 or above.

MUS 145 APPLIED MUSIC - KEYBOARD (1 cr.) Teaches piano, organ, harpsichord, or synthesizer. Studies the standard repertoire. Laboratory 4-8 hours per week. Prerequisite: ENF 3 or above.

MUS 149 BAND ENSEMBLE (1 cr.) Ensemble consists of performance from the standard repertoires, including study of ensemble techniques and interpretation. Divisional approval required. May be repeated for credit. Laboratory 3-6 hours per week. Prerequisite: ENF 3 or above.

MUS 155 APPLIED MUSIC - WOODWINDS (1 cr.) Teaches fundamentals of the woodwind instruments. Studies the standard repertoire. Laboratory 4-8 hours per week. Prerequisite: ENF 3 or above.

MUS 175 APPLIED MUSIC - BRASS (1 cr.) Teaches fundamentals of brass instruments. Studies the standard repertoire. Laboratory 4-8 hours per week. Prerequisite: ENF 3 or above.

MUS 185 APPLIED MUSIC - PERCUSSION (1 cr.) Teaches fundamentals of percussion instruments. Studies the standard repertoire. Laboratory 4-8 hours per week. Prerequisite: ENF 3 or above.

MUS 236 ADVANCED APPLIED MUSIC - VOICE (1 cr.) Continues MUS 136. Private lessons are available for either 1 or 2 hours of credit per semester. The length of the lessons will be 1/2 hour for 1 hour credit and 1 hour for 2 hours credit per semester. All courses in applied music may be repeated for a total of 8 hours for the major and 4 hours for the minor. Laboratory 1-2 hours per week. Divisional approval required.

NATURAL SCIENCE (NAS)

NAS 150 HUMAN BIOLOGY (4 cr.) Surveys the structure and function of the human body. Applies principally to students who are not majoring in the health or science fields. Lecture 4 hours per week. Prerequisite ENF 3 or above and one high school college prep level science class with no grade below C.

NURSING (NUR)

NUR 111 NURSING I (7 cr.) Introduces nursing principles including concepts of health and wellness and the nursing process. Develops nursing skills to meet the biopsychosocial needs of individuals across the lifespan. Includes math computational skills, basic computer instruction related to the delivery of nursing care, communication skills, introduction to nursing, health, the health care system, legal aspects of nursing care, diagnostic testing, assessment, teaching and learning, asepsis, body mechanics and safety, personal care, activity/rest, wound care, nutrition, elimination, oxygenation, fluid and electrolytes, pain control, medication administration, aging populations and pre/post operative care. Provides supervised learning experiences. Lecture 5 hours. Laboratory 7 hours. Total 12 hours per week. Prerequisite: Must be accepted in the ADN Nursing program. Co-requisite: BIO 231, PSY 230, NUR 135, SDV 101.

NUR 115 LPN TRANSITION (2 cr.) Introduces the role of the registered nurse through concepts and skill development in the discipline of professional nursing. This course serves as a bridge course for licensed practical nurses and is based upon individualized articulation agreements, mobility exams, or other assessment criteria as they relate to local programs and service areas. Includes math computational skills and basic computer instruction related to the delivery of nursing care. (THIS COURSE HAS BEEN APPROVED BY THE VICE CHANCELLOR AS AN EXCEPTION TO THE VARIABLE CREDIT POLICY.) Lecture 1 hour. Laboratory 3 hours. Total **4** hours per week. Prerequisite: ENG 111, PSY 230, BIO 231, and SDV 108 and have been accepted into the ADN program. Co-requisites: NUR 118, NUR 247, and BIO 232.

NUR 118 FIRST LEVEL NURSING II (8 cr.) Focuses on the nursing care of individuals and/or families throughout the lifespan experiencing changes along the health/illness continuum that are common, well-defined, and have predictable outcomes. Content includes math computational skills, basic computer instruction related to the delivery of nursing care; assessment and nursing care of the child; nursing care of productive health/disorders, pre/intra/postnatal child bearing family and musculoskeletal and neurological disorders. Provides supervised learning experiences in college nursing laboratory and/or cooperating agencies. Lecture ~~5~~ hours. Laboratory 9 hours. Total 14 hours per week. Prerequisites: NUR 111, BIO 231 & PSY 230. Co-requisite: BIO 232, NUR 247.

NUR 135 DRUG DOSAGE CALCULATIONS (2 cr.) Focuses on apothecary, metric, household conversion in medication dosage calculation for adult and pediatric clients. Provides a practical approach to learning to calculate and prepare medications and solutions. Includes calculating intravenous flow rates. Lecture 2 hours per week. Prerequisite: MTE 1-6.

NUR 221 SECOND LEVEL NURSING PRINCIPLES AND CONCEPTS I (9 cr.) Focuses on nursing care of individuals, families, and/or groups with multi-dimensional needs in a variety of settings. Uses all components of the nursing process with increasing degrees of skill. Includes math computational skills, basic computer instruction related to the delivery of nursing care and nursing care related to infectious, immunological, oncological, hematological, gastro-intestinal, vascular, sensory, genitourinary musculoskeletal, regulatory, endocrine, and women's health disorders and pre/intra/post-operative care. Provides supervised learning experiences in college nursing laboratories and/or cooperating agencies. Lecture 6 hours. Laboratory 9 hours. Total 15 hours per week. Prerequisites: NUR 118, NUR 247, PSY 230 and BIO 231,232.

NUR 222 SECOND LEVEL NURSING PRINCIPLES AND CONCEPTS II (10 cr.) Focuses on nursing care of individuals, families, and/or groups with multi-dimensional needs in a variety of settings. Uses all components of the nursing process with increasing degrees of skill. Includes math computation skills, basic computer instruction related to the delivery of nursing care and nursing care related to cardiac, respiratory, neurological disorders; emergency care, and leadership principles. Provides supervised learning experiences in college nursing laboratories and/or cooperating agencies. Lecture ~~6~~ hours. Laboratory 14 hours. Total 20 hours per week. Co-requisite: NUR 254. Prerequisite: NUR 221

NUR 226 HEALTH ASSESSMENT (3 cr.) Introduces the systematic approach to obtaining a health history and performing physical assessment. Lecture 2 hours per week. Laboratory 3 hours per week. Co-requisite BIO 231

NUR 230 PHARMACOLOGY (3cr.) Introduces general principles of drug action, pharmacology of the major drug classes, and specific agents within each class. Includes math calculations necessary to adapt dosages to the multidimensional needs of individuals across the lifespan. Lecture 3 hours per week. Prerequisite: a placement of ENF 3 or above. Co-requisite: BIO 232.

NUR 247 PSYCHIATRIC/MENTAL HEALTH NURSING (3 cr.) Develops nursing skills in caring for individuals, families, and/or groups with mental health needs. Explores various treatment models, diagnostic categories, and rehabilitative measures. Lecture 3 hours per week. Prerequisite: NUR 111. Co-requisites: NUR 118.

NUR 254 DIMENSIONS OF PROFESSIONAL NURSING (2 cr.) Explores the role of the professional nurse. Emphasizes nursing organizations, legal and ethical implications, and addresses trends in management and organizational skills. Explores group dynamics, relationships, conflicts, and leadership styles. Lecture 2 hours per week. Prerequisite NUR 221. Co-requisite: NUR 222.

PHYSICAL EDUCATION AND RECREATION (PED)

PED 101 FUNDAMENTALS OF PHYSICAL ACTIVITY I (1 cr.) Presents principles underlying the components of physical fitness. Utilizes conditioning activities involving cardiovascular strength and endurance, respiratory efficiency, muscular strength, and flexibility. May include fitness assessment, nutrition and weight control information, and concepts of wellness. Part I of II. Lecture 0 hours. Laboratory 2 hours. Total 2 hours per week.

PED 102 FUNDAMENTALS OF PHYSICAL ACTIVITY II (1 cr.) Presents principles underlying the components of physical fitness. Utilizes conditioning activities involving cardiovascular strength and endurance, respiratory efficiency, muscular strength, and flexibility. May include fitness assessment, nutrition and weight control information, and concepts of wellness. Part II of II Lecture 0 hours. Laboratory 2 hours. Total 2 hours per week. Prerequisite: PED 101.

PED 103 AEROBIC FITNESS I (1 cr.) Develops cardiovascular fitness though activities designed to elevate and sustain heart rates appropriate to age and physical condition. Part I of II. Lecture 0 hours. Laboratory 2 hours. Total 2 hours per week.

PED 104 AEROBIC FITNESS II (1cr.) Develops cardiovascular fitness though activities designed to elevate and sustain heart rates appropriate to age and physical condition. Part II of II. Lecture 0 hours. Laboratory 2 hours. Total 2 hours per week.

PED 105 AEROBIC DANCE I (1cr.) Focuses on physical fitness through dance exercises. Emphasizes the development of cardiovascular endurance, muscular endurance, and flexibility. Part I of II. Lecture 0 hours. Laboratory 2 hours. Total 2 hours per week.

PED 107 EXERCISE AND NUTRITION I (1 cr.) Provides for the study and application of fitness and wellness and their relationship to a healthy lifestyle. Defines fitness and wellness, evaluates the student's level of fitness and wellness. Students will incorporate physical fitness and wellness into the course and daily living. A personal fitness/wellness plan is required for the 2 credit course. Part I of II. Lecture 0 hours. Laboratory 2 hours. Total 2 hours per week.

PED 108 EXERCISE AND NUTRITION II (1 cr.) Provides for the study and application of fitness and wellness and their relationship to a healthy lifestyle. Defines fitness and wellness, evaluates the student's level of fitness and wellness. Students will incorporate physical fitness and wellness into the course and daily living. A personal fitness/wellness plan is required for the 2 credit course. Part II of II. Lecture 0 hours. Laboratory 2 hours. Total 2 hours per week.

PED 109 YOGA (1 cr.) Focuses on the forms of yoga training emphasizing flexibility. Lecture 0 hours. Laboratory 2 hours. Total 2 hours per week.

PED 110 ZUMBA (1cr.) Focuses on Latin rhythms, dance moves and techniques in Zumba. Utilizes physical activity, cardiovascular endurance, balance, coordination and flexibility as related to dance. Lecture 0 hours. Laboratory 2 hours. Total 2 hours per week.

PED 111 WEIGHT TRAINING I (1 cr.) Focuses on muscular strength and endurance training through individualized workout programs. Teaches appropriate use of weight training equipment. Part I of II. Lecture 0 hours. Laboratory 2 hours. Total 2 hours per week.

PED 112 WEIGHT TRAINING II (1-2 cr.) Focuses on muscular strength and endurance training through individualized workout programs. Teaches appropriate use of weight training equipment. Part II of II. Lecture 0 hours. Laboratory 2 hours. Total 2 hours per week.

PED 118 BASEBALL FUNDAMENTALS I (1 cr.) Enhances the mental and physical ability of students for playing the sport of baseball. Consists of units related to weight training, flexibility, fielding, throwing, hitting, pitching, and position play. Students will gain knowledge about the history of the sport and gain an understanding and respect for the game and its role in society. Lecture 0 hours. Laboratory 2 hours. Total 2 hours per week.

PED 119 BASEBALL FUNDAMENTALS II (1 cr.) Continues to enhance the mental and physical ability of students for playing the sport of baseball. Continues to teach the skills necessary to play the sport. Provides students with the opportunity to evaluate, train, and coach players in order to enhance others' playing abilities. Provides an understanding of the multiple processes involved in forming a baseball team. Lecture 0 hours. Laboratory 2 hours. Total 2 hours per week.

PED 120 YOGA II (1 cr.) Focuses on the forms of yoga training emphasizing flexibility. Lecture 0 hours. Laboratory 2 hours. Total 2 hours per week. Prerequisite: PED 109.

PED 123 TENNIS I (1 cr.) Teaches tennis skills with emphasis on stroke development and strategies for individual and team play. Includes rules, scoring, terminology, and etiquette. Part I of II. Lecture 0 hours. Laboratory 2 hours. Total 2 hours per week.

PED 124 TENNIS II (1 cr.) Teaches tennis skills with emphasis on stroke development and strategies for individual and team play. Includes rules, scoring, terminology, and etiquette. Part II of II. Lecture 0 hours. Laboratory 2 hours. Total 2 hours per week.

PED 129 SELF-DEFENSE (1 cr.) Examines history, techniques, and movements associated with self-defense. Introduces the skills and methods of self-defense emphasizing mental and physical discipline. Lecture 0 hours. Laboratory 2 hours. Total 2 hours per week.

PED 133 GOLF I (1 cr.) Teaches basic skills of golf, rules, etiquette, scoring, terminology, equipment selection and use, and strategy. Part I of II. Lecture 0 hours. Laboratory 2 hours. Total 2 hours per week.

PED 134 GOLF II (1 cr.) Teaches basic skills of golf, rules, etiquette, scoring, terminology, equipment selection and use, and strategy. Part II of II. Lecture 0 hours. Laboratory 2 hours. Total 2 hours per week.

PED 137 MARTIAL ARTS I (1 cr.) Emphasizes forms, styles, and techniques of body control, physical and mental discipline, and physical fitness. Presents a brief history of development of martial arts theory and practice. Part I of II. Lecture 0 hours. Laboratory 2 hours. Total 2 hours per week.

PED 138 MARTIAL ARTS II (1 cr.) Emphasizes forms, styles, and techniques of body control, physical and mental discipline, and physical fitness. Presents a brief history of development of martial arts theory and practice. Part II of II. Lecture 0 hours. Laboratory 2 hours. Total 2 hours per week.

PED 150 SOCCER (1 cr.) Emphasizes soccer skills and techniques, strategies, rules, equipment, and physical conditioning. Lecture 0 hours. Laboratory 2 hours. Total 2 hours per week.

PED 152 BASKETBALL (1cr.) Introduces basketball skills, techniques, rules, and strategies Lecture 0 hours. Laboratory 2 hours. Total 2 hours per week.

PED 154 VOLLEYBALL (1 cr.) Introduces skills, techniques, strategies, rules, and scoring. Lecture 0 hours. Laboratory 2 hours. Total 2 hours per week.

PED 156 SOFTBALL (1 cr.) Emphasizes softball skills, techniques, strategies, and rules. Lecture 0 hours. Laboratory 2 hours. Total 2 hours per week.

PED 157 SOCCER II (1cr.) Emphasizes advanced soccer skills and techniques, strategies, rules, equipment, and physical conditioning. Lecture 0 hours. Laboratory 2 hours. Total 2 hours per week. Prerequisite: PED 150.

PED 163 JAZZ I (1cr.) Introduces dance through contemporary jazz movements. Includes floor stretches, isolations, dance patterns and locomotor movements. Part I of II. Lecture 0 hours. Laboratory 2 hours. Total 2 hours per week.

PED 206 SPORTS APPRECIATION (2 cr.) Focuses on the history, trends, rules, methods, strategy, and terminology of selected sports activities. Provides student awareness as a spectator and/or participant. Lecture 2 hours per week. Prerequisite: ENF 3 or above.

PED 210 INTRODUCTION TO PHYSICAL EDUCATION AND HEALTH (3 cr.) Provides an overview of the historical, philosophical, psychological, physiological, and sociological principles of health, physical education, and recreation. Lecture 3 hours per week. Prerequisite: ENF 3 or above.

PED 220 ADULT HEALTH AND DEVELOPMENT (3 cr.) Provides direct application of the theories of aging and physical activity. Teaches techniques for developing appropriate individualized fitness and activity programs for older adults. Focuses on physical, social, and mental well-being. Includes assessment and evaluation of physical fitness principles, role of exercise in disease prevention, leadership skills and communication strategies. (Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week. Prerequisite: ENF 3 or above.

PHILOSOPHY (PHI)

PHI 101 INTRODUCTION TO PHILOSOPHY I (3 cr.) Introduces a broad spectrum of philosophical problems and perspectives with an emphasis on the systematic questioning of basic assumptions about meaning, knowledge, reality, and values. Part I of II. Lecture 3 hours per week. Prerequisites: ENF 3 or above.

PHI 111 LOGIC I (3 cr.) Introduces inductive and deductive reasoning, with an emphasis on common errors and fallacies. Lecture 3 hours per week. Prerequisites: ENF 3 or above.

PHI 220 ETHICS (3 cr.) Provides a systematic study of representative ethical systems. Lecture 3 hours per week. Prerequisites: ENF 3 or above.

PHYSICS (PHY)

PHY 131 APPLIED PHYSICS I (3 cr.) Emphasizes applications of topics such as precision measurement, statics, dynamics, energy, momentum, properties of matter, heat, sound, optics, electricity and magnetism. Prerequisites high school algebra, geometry and trigonometry, or equivalent or divisional approval. Part I of II. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week. Prerequisites: MTE 1-9, ENF 3 or above.

PHY 132 APPLIED PHYSICS II (3 cr.) Emphasizes applications of topics such as precision measurement, statics, dynamics, energy, momentum, properties of matter, heat, sound, optics, electricity and magnetism. Prerequisites: PHY 131, high school algebra, geometry and trigonometry, or equivalent or divisional approval. Part II of II. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

PHY 201 GENERAL COLLEGE PHYSICS I (4 cr.) Teaches fundamental principles of physics. Covers mechanics, thermos-dynamics, wave phenomena, electricity and magnetism, and selected topics in modern physics. Part I of II. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week. Prerequisite: MTH 163, ENF 3 or above.

PHY 202 GENERAL COLLEGE PHYSICS II (4 cr.) Teaches fundamental principles of physics. Covers mechanics, thermos-dynamics, wave phenomena, electricity and magnetism, and selected topics in modern physics. Part II of II. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week. Prerequisite: PHY 201, MTH 163.

PHY 241 UNIVERSITY PHYSICS I (4 cr.) Teaches principles of classical and modern physics. Includes mechanics, wave phenomena, heat, electricity, magnetism, relativity, and nuclear physics. Prerequisite for PHY 241--MTH 173 or MTH 273 or divisional approval and ENF 3 or above. Part I of II. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

PHY 242 UNIVERSITY PHYSICS II (4 cr.) Teaches principles of classical and modern physics. Includes mechanics, wave phenomena, heat, electricity, magnetism, relativity, and nuclear physics. Part II of II. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week. Prerequisite for PHY 241-- MTH 173 or MTH 273 or divisional approval.

POLITICAL SCIENCE (PLS)

PLS 135 AMERICAN NATIONAL POLITICS (3 cr.) Teaches political institutions and processes of the national government of the United States, focuses on the Congress, presidency, and the courts, and on their inter-relationships. Gives attention to public opinion, suffrage, elections, political parties, interest groups, civil rights, domestic policy, and foreign relations. Lecture 3 hours per week. Prerequisites: ENF 3 or above.

PLS 211 U.S. GOVERNMENT I (3 cr.) Teaches structure, operation, and process of national, state, and local governments. Includes in-depth study of the three branches of the government and of public policy. Part I of II. Lecture 3 hours per week. Prerequisites: ENF 3 or above. May be taken out of sequence.

PLS 212 U.S. GOVERNMENTI I (3 cr.) Teaches structure, operation, and process of national, state, and local governments. Includes in-depth study of the three branches of the government and of public policy. Part II of II. Lecture 3 hours per week. Prerequisites: ENF 3 or above. May be taken out of sequence.

PRACTICAL NURSING (PNE)

PNE 141 NURSING SKILLS I (2 cr.) Studies principles and procedures essential to the basic nursing care of patients. Lecture 1 hour per week. Part I of II. Laboratory 3 hours per week. Total 4 hours per week. Co-requisites: NAS 150, NUR 135, & PNE 161. Must be accepted to the PN Program.

PNE 142 NURSING SKILLS II (2 cr.) Studies principles and procedures essential to the basic nursing care of patients. Lecture 0-2 hour per week. Part II of II. Lab 3-6 hours per week. Total 4 hours per week. Co- requisites: NAS 150, NUR 135, & PNE 161, HLT 141. Must be accepted to the PN Program.

PNE 145 TRENDS IN PRACTICAL NURSING (1 cr.) Studies the role of the Licensed Practical Nurse. Covers legal aspects, organizations, and opportunities in practical nursing. Assists students in preparation for employment. Lecture 1 hour per week. Prerequisite: PNE 163. Co-requisite: PNE 164, PNE 158.

PNE 158 MENTAL HEALTH AND PSYCHIATRIC NURSING (2 cr.) Recognizes emotional needs of patients. Provides knowledge of the role that emotions play. Enables students to understand their own behavior as well as patient behavior. Lecture 2 hours per week. Co-requisite: PNE 164, PNE 145

PNE 161 NURSING IN HEALTH CHANGES I (6 cr.) Focuses on nursing situations and procedures necessary to assist individuals in meeting special needs related to human functions. Lecture 4 hours. Laboratory 6 hours. Total 10 hours per week. Co- requisite: HLT 141; PNE 141; PNE 142, NAS 150. Must be accepted to the PN Program.

PNE 163 NURSING IN HEALTH CHANGES III (8 cr.) Continues the focus on nursing situations and procedures necessary to assist individuals in meeting special needs related to human functions. Lecture 4 hours. Laboratory 12 hours. Total 16 hours per week. Prerequisite: PNE 161. PNE 141, PNE 142, NAS 150. Co-requisite: PSY 230, PNE 173. Must be accepted to the PN Program.

PNE 164 NURSING IN HEALTH CHANGES IV (11 cr.) Continues the focus on nursing situations and procedures necessary to assist individuals in meeting special needs related to human functions. Lecture 6 hours. Laboratory 15 hours. Total 21 hours per week. Co-requisite: PNE 158, PNE 145

PNE 173 PHARMACOLOGY FOR PRACTICAL NURSES (2 cr.) Studies history, classification, sources, effects, uses and legalities of drugs. Teaches problem solving skills used in medication administrations. Emphasizes major drug classes and specific agents within each class. Lecture 1-2 hours per week. Co-requisites: PNE 163.

PSYCHOLOGY (PSY)

PSY 126 PSYCHOLOGY FOR BUSINESS AND INDUSTRY (3 cr.) Focuses on the application of psychology to interpersonal relations and the working environment. Includes topics such as group dynamics, motivation, employee-employer relationship, and interpersonal communications. May include techniques for selection and supervision of personnel. Lecture 3 hours per week.

PSY 135 CHILD CARE PSYCHOLOGY (3 cr.) Analyzes the development of the child from conception to adolescence with concentration on physical, cognitive, emotional, and social growth patterns. Includes theory, research, and practical applications. Provides background for careers involving continuous work with children. Lecture 3 hours per week. Prerequisites: ENF 3 or above.

PSY 200 PRINCIPLES OF PSYCHOLOGY (3 cr.) Surveys the basic concepts of psychology. Covers the scientific study of behavior, behavioral research methods and analysis, and theoretical interpretations. Includes topics that cover physiological mechanisms, sensation/perception, motivation, learning, personality, psycho-pathology, therapy, and social psychology. Lecture 3 hours per week. Prerequisites: ENF 3 or above, ITE 95. NOTE: Credit will not be awarded for both PSY 200 and PSY 201.

PSY 215 ABNORMAL PSYCHOLOGY (3 cr.)
Explores historical views and current perspectives of abnormal behavior. Emphasizes major diagnostic categories and criteria, individual and social factors of maladaptive behavior, and types of therapy. Includes methods of clinical assessment and research strategies. Lecture 3 hours per week. Prerequisite: PSY 200, 201, or 202.

PSY 216 SOCIAL PSYCHOLOGY (3 cr.) Examines individuals in social contexts, their social roles, group processes and intergroup relations. Includes topics such as small group behavior, social behavior, social cognition, conformity, attitudes, and motivation. Lecture 3 hours per week. Prerequisite: PSY 200, 201, or 202.

PSY 219 - CROSS-CULTURAL PSYCHOLOGY (3 cr.)
Investigates psychological principles from a cross-cultural perspective. Examines cultural basics for views of reality. Describes topics such as time, space, values, sex-roles, and human development in relation to culture. Prerequisites: PSY 200, 201 or 202. Lecture 3 hours per week.

PSY 230 DEVELOPMENTAL PSYCHOLOGY (3 cr.)
Studies the development of the individual from conception to death. Follows a life-span perspective on the developmental tasks of the person's physical, cognitive, and psychosocial growth. Lecture 3 hours per week. Prerequisites: ENF 3 or above.

PHYSICAL THERAPY ASSISTANT (PTH)

PTH 151 MUSCULOSKELETAL STRUCTURE AND FUNCTION (4 cr.) Studies the human musculoskeletal system. Covers terms of position and movement, location and identification of specific bony landmarks, joint structure and design, ligaments, muscle origin, action and innervation, and emphasizes types of contraction. Lecture 3 hours. Laboratory 2 hours. Total 5 hours per week. For Therapeutic Massage students. CONSENT required.

RELIGION (REL)

REL 200 SURVEY OF THE OLD TESTAMENT (3 cr.)
Surveys books of the Old Testament, with emphasis on prophetic historical books. Examines the historical and geographical setting and place of the Israelites in the ancient Middle East as background to the writings. Lecture 3 hours per week. Prerequisite: ENG 111 or division approval.

REL 210 SURVEY OF THE NEW TESTAMENT (3 cr.)
Surveys books of the New Testament, with special attention upon placing the writings within their historical and geographical setting. Lecture 3 hours per week. Prerequisite: ENG 111 or division approval.

REL 231 RELIGIONS OF THE WORLD I (3 cr.) Studies religions of the world with attention to origin, history, and doctrine. Part I of II. Lecture 3 hours per week. Prerequisite: ENG 111 or division approval.

REL 232 RELIGIONS OF THE WORLD II (3 cr.) Studies religions of the world with attention to origin, history, and doctrine. Part II of II. Lecture 3 hours per week. Prerequisite: ENG 111 or division approval.

RECREATION AND PARKS (RPK)

RPK 100 INTRODUCTION TO RECREATION, PARKS & LEISURE STUDIES (3 cr.) Includes history and philosophy of the Recreation and Parks movement. Discusses the theory of leisure and play. Analyzes leisure service delivery systems and career opportunities. Emphasizes the commercial, non-profit and public sectors, Armed Forces, therapeutic recreation as well as volunteer service. Prerequisite: ENG 111. Lecture 3 hours per week.

RPK 141 LEADERSHIP AND SUPERVISION (3 cr.)
Introduces leadership and supervision in the leisure services industry. Assesses leadership styles, traits and leadership theories and provides the opportunity for students to assess their own individual styles. Addresses group dynamics, conflict, and issue relating specifically to leadership of volunteers. Includes a leadership practicum. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week. Prerequisite: ENF 3 or above.

RPK 146 RECREATION FACILITIES MANAGEMENT & DESIGN (3 cr.) Introduces concepts of facilities planning, site analysis, planning and zoning strategies, and landscape design. Emphasizes the creation and maintenance of "people-space." Presents issues regarding community development, needs assessment, facility planning and design, geographic use patterns and demographics. Includes field experience. Prerequisite: Advanced standing. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week. Prerequisite: ENF 3 or above.

RPK 152 SPORTS FIRST AID & SAFETY (1 cr.) Focuses on the introduction to first aid protocols causes, signs and symptoms of injury for coaches, injury prevention, preseason physicals, fitness screenings, and conditioning programs and return to play guidelines, injury prevention and risk management, as well as the design and implementation of a medical emergency plan. Laboratory 2 hours per week.

RKP 180 YOUTH SPORTS ADMINISTRATION (3 cr.)
Prepares coaching professionals to develop and implement emotionally and physically healthful youth sports programs. Includes an analysis of the youth sports program planning process including: philosophy development, learning styles and outcomes, managing parents and players, skills development, risk management, financial planning and strategic partnerships and sports event management. Lecture 3 hours per week.

RPK 201 RECREATION AND PARKS MANAGEMENT (3 cr.) Examines organization and management of recreation and park agencies. Discusses theories and principles of management, organizational behavior, budget preparation, hiring preparation, hiring practices and personnel management, documentation and presentation. Examines software specific to recreation facility and program management. Lecture 3 hours per week. Prerequisites: ENF 3 or above.

RPK 210 PRINCIPLES AND PSYCHOLOGY OF COACHING (3 cr.) Provides and analysis of volunteer coaching and the coaching profession planning process including; philosophy development, learning styles and outcomes, managing parents and players, skills development, risk management, financial planning, drugs and eating disorders in sport and physical training. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week. Prerequisite: ENF 3 or above.

RPK 265 RISK MANAGEMENT (3 cr.) Discusses the law and liability as they relate to the delivery of leisure services. Teaches practitioners legal principles necessary to analyze programs and facilities with respect to safety, emergency preparedness, and accident reporting protocols. Review hiring procedures, ADA compliance, national (CPSC, ASTM, OSHA) and professional standards (NRPA, ACA), certification and training standards (CPRP, CTRS), supervision and the role of maintenance and insurance. Uses case law and national compliance standards to illustrate legal principles. Prerequisite: Advanced standing. Lecture 3 hours per week. Prerequisite: ENF 3 or above.

RUSSIAN (RUS)

RUS 101 - BEGINNING RUSSIAN I (5 cr.) Develops the understanding, speaking, reading, and writing of Russian, and emphasizes the structure of the language. May include oral drill and practice. Part I of II. Lecture 5 hours per week. May include one additional hour of oral practice per week.

RUS 102 - BEGINNING RUSSIAN II (5 cr.) Develops the understanding, speaking, reading, and writing of Russian, and emphasizes the structure of the language. May include oral drill and practice. Part II of II. Lecture 5 hours per week. May include one additional hour of oral practice per week.

SAFETY (SAF)

SAF 126 PRINCIPLES OF INDUSTRIAL SAFETY (3 cr.)
Teaches principles and practices of accident prevention, analysis of accident causes, mechanical safeguards, fire prevention, housekeeping, occupational diseases, first aid, safety organization, protection equipment and general safety principles and promotion. Lecture 3 hours per week.

SAF 130 – INDUSTRIAL SAFETY - OSHA 10 (1 cr.)
Presents an introduction to occupational health and safety and its application in the workplace. Emphasizes safety standards and the Occupational Safety and Health Act (OSHA), its rules and regulations (OSHA 10). Lecture 1 hour per week.

SOCIOLOGY (SOC)

SOC 200 PRINCIPLES OF SOCIOLOGY (3 cr.)
Introduces fundamentals of social life. Presents significant research and theory in areas such as culture, social structure, socialization, deviance, social stratification, and social institutions. Lecture 3 hours per week. Prerequisites: ENF 3 or above. NOTE: Credit will not be awarded for both SOC 200 and SOC 201.

SOC 207 - MEDICAL SOCIOLOGY (3 cr.) Surveys the social, economic, cultural, and individual factors in health and illness. Examines issues of wellness, health-care systems, physician-nurse-patient relationships, medical costs, ethics and policy. Lecture 3 hours per week.

SOC 215 SOCIOLOGY OF THE FAMILY (3 cr.)
Studies topics such as marriage and family in social and cultural context. Addresses the single scene, dating and marriage styles, child rearing, husband

and wife interaction, single parent families, alternative lifestyles. Lecture 3 hours per week. Prerequisites: ENF 3 or above.

SOC 226 HUMAN SEXUALITY (3 cr.) Studies sociological research and theory on sexuality. Includes anatomy and physiology, birth control, sexually transmitted diseases and sexual behavior. Also approved for offering as HLT 136. Lecture 3 hours per week. Prerequisites: ENF 3 or above.

SOC 245 - SOCIOLOGY OF AGING (3 cr.) Introduces study of aging with special emphasis on later stages of the life cycle. Includes theories of aging, historical and comparative settings, social policy, and future trends of aging. Lecture 3 hours per week.

SOC 268 SOCIAL PROBLEMS (3 cr.) Applies sociological concepts and methods to analysis of current social problems. Includes delinquency and crime, mental illness, drug addiction, alcoholism, sexual behavior, population crisis, race relations, family and community disorganization, poverty, automation, wars, and disarmament. Lecture 3 hours per week. Prerequisites: ENF 3 or above, and instructor approval.

SPANISH (SPA)

SPA 101 BEGINNING SPANISH I (4 cr.) Introduces understanding, speaking, reading, and writing skills and emphasizes basic Spanish sentence structure. May include an additional hour of oral drill and practice per week. Lecture 4 hours per week. May include one additional hour of oral practice per week. Part I of II. Prerequisite: ENF 3 or above.

SPA 102 BEGINNING SPANISH II (4 cr.) Introduces understanding, speaking, reading, and writing skills and emphasizes basic Spanish sentence structure. May include an additional hour of oral drill and practice per week. Lecture 4 hours per week. May include one additional hour of oral practice per week. Part II of II. Prerequisite: ENF 3 or above.

SPA 103 BASIC SPOKEN SPANISH I (3 cr.) Teaches oral communication and introduces cultural mores and customs to students with no prior instruction in the language. Part I of II. Lecture 3 hours per week.

SPA 104 BASIC SPOKEN SPANISH II (3 cr.) Teaches oral communication and introduces cultural mores and customs to students with no prior instruction in the language. Part II of II. Lecture 3 hours per week.

SPA 163 SPANISH FOR HEALTH PROFESSIONALS I (3 cr.) Introduces Spanish to those in the health sciences. Emphasizes oral communication and practical medical vocabulary. May include oral drill and practice. Part I of II. Lecture 3 hours per week.

SPA 164 SPANISH FOR HEALTH PROFESSIONALS II (3 cr.) Introduces Spanish to those in the health sciences. Emphasizes oral communication and practical medical vocabulary. May include oral drill and practice. Part II of II. Lecture 3 hours per week.

SPA 201 INTERMEDIATE SPANISH (4 cr.) Continues to develop understanding, speaking, reading, and writing skills. Prerequisite: SPA 102 or equivalent. May include oral drill and practice. Part I of II. Lecture 4 hours per week. May include one additional hour of oral practice per week.

SPA 202 INTERMEDIATE SPANISH (4 cr.) Continues to develop understanding, speaking, reading, and writing skills. Prerequisite: SPA 102 or equivalent. May include oral drill and practice. Part II of II. Lecture 4 hours per week. May include one additional hour of oral practice per week.

STUDENT DEVELOPMENT (SDV)

SDV 100 COLLEGE SUCCESS SKILLS (1 cr.) Assists students in transition to colleges. Provides overviews of college policies, procedures, and curricular offerings. Encourages contacts with other students and staff. Assists students toward college success through information regarding effective study habits, career and academic planning, and other college resources available to students. Strongly recommended for beginning students. Lecture 1 hour per week. Co-requisite: ENF 1.

SDV 101 ORIENTATION TO (Specify the discipline.) (1 cr.) Introduces students to the skills which are necessary to achieve their academic goals, to the services offered at the college and to the discipline in which they are enrolled. Covers topics such as services at the college including the learning resources center; counseling, and advising; listening, test taking, and study skills; and topical areas which are applicable to their particular discipline. Lecture 1 hour per week. Co requisite: ENF 1.

SDV 104 STUDY SKILLS (1 cr.) Assists students in planning strategies to overcome nonproductive study habits and in implementing positive study behaviors. Includes management, memory improvement, note taking, and test taking. Lecture 1 hour per week.

SDV 106 Preparation for Employment (1 cr.) Provides experience in resume writing, preparation of applications, letters of application, and successfully preparing for and completing the job interview. Assists students in identifying their marketable skills and aptitudes. Develops strategies for successful employment search. Assists students in understanding effective human relations techniques and communication skills in job search. Lecture 1 hour per week.

SDV 107 CAREER EDUCATION (1 cr.) Surveys career options available to students. Stresses career development and assists in the understanding of self in the world of work. Assists students in applying decision-making to career choice. Lecture 1 hour per week.

SDV 108 COLLEGE SURVIVAL SKILLS (1 cr.) Provides an orientation to the college. Introduces study skills, career and life planning. Offers an opportunity to engage in activities aimed at self-discovery. Emphasizes development of "coping skills" such as listening, interpersonal relations, competence, and improved self-concept. Lecture 1 hour per week. Co-requisite: ENF 1.

SDV 199 SUPERVISED STUDY IN TRANSFER PROGRAMS (1 cr.) Provides experience in preparation of application of admission to senior institutions, exploring degrees and programs of study at the senior institutions, assessment of core competencies, and assistance with other needs such as housing, study habits, and financial aid when transitioning from the community college to the senior institution. Assists students in understanding differences in community college life and academics and the senior institution. Lecture 1 hour per week. Prerequisites: ENG 111, and completion of 33 semester hours or more in a transfer program of study.

VITICULTURE (VEN)

VEN 100 INTRODUCTION TO VITICULTURE (3 cr.) Introduces grapes, their history, distribution, classification and areas of production. Provides an overview of grape uses and products made from them. Includes site selection and environmental factors that affect grapes and their quality. Lecture 3 hours per week. Prerequisite: ENF 3 or above.

VEN 110 VINEYARD ESTABLISHMENT (3 cr.) Reviews sites, soils, and other factors that affect the planting of grapes. Covers vineyard designs, varieties, and the training of newly planted vines. Includes weed control and pest management of new vines. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week. Prerequisite: ENF 3 or above.

VEN 120 VITICULTURE I (3 cr.) Studies grape vine training, pruning, trellising, shoot positioning, leaf pulling, and other cultural practices used in a successful vineyard. Examines canopy management as related to disease control. Researches sites and develops skills in disease abatement. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week. Prerequisite: ENF 3 or above.

VEN 121 VITICULTURE II (3 cr.) Explores late season canopy management as it relates to fruit maturity and fruit ripening. Emphasizes field experience with diseases and their effect on fruit quality as fruit matures and becomes ready for harvest. Prerequisite: VEN 120. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week. Prerequisite: ENF 3 or above.

VEN 125 VINEYARD MANAGEMENT (3 cr.) Studies the overall practices involved in vineyard management with emphasis on diseases and insects as they affect overall quality of grapes. Surveys grape harvest and grape maturity as it affects wine quality. Provides hands-on experience in the harvest process. Prerequisite: VEN 121. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week. Prerequisite: ENF 3 or above.

VEN 130 INTRODUCTION TO WINE MAKING (3 cr.) Introduces the process of wine making – both home and commercial wines. Describes the science involved in the production of wine and its various types. Delivers hands-on projects. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

VEN 135 WINE PRODUCTION (3 cr.) Describes the production of commercial wine production from the grape to the bottle – including crush, fermenting and aging. Provides experience in the production of sample units of various wines. Prerequisite: VEN 130. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week. Prerequisite: ENF 3 or above.

VEN 140 VITICULTURE PEST AND DISEASE MANAGEMENT (3 cr.) Investigates grape diseases, grape insects and grape pests. Studies and evaluates methods of disease and pest control with an investigation of natural and chemical measures. Provides field experience in pest and disease management. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week. Prerequisite: ENF 3 or above.

VEN 190 COORDINATED INTERNSHIP (3 cr.) Supervises on-the-job training in selected business, industrial or service firms coordinated by the college. Credit/practice ratio not to exceed 1:5 hours. May be repeated for credit. Prerequisite: Prerequisite: ENF 3 or above, VEN 121, VEN 125.

WELDING (WEL)

WEL 117 OXYFUEL WELDING AND CUTTING (3 cr.) Introduces history of oxyacetylene welding, principles of welding and cutting, nomenclature of the equipment, development of the puddle, running flat beads, butt-welding in different positions. Also explains brazing, silver and soft soldering, and heat-treating of small tools, safety procedures in the use of tools and equipment. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

WEL 123 SHIELDED METAL ARC WELDING (BASIC) (4 CR.) Teaches operation of AC and DC power sources, welding polarities, heats and electrodes for use in joining various metal alloys by the arc welding process. Deals with running beads, butt, and fillet welds in all positions. Emphasizes safety procedures. Lecture 2 hours. Laboratory 6 hours. Total 8 hours per week.

WEL 124 SHIELDED METAL ARC WELDING (ADVANCED) (4 cr.) Continues instruction on operation of AC and DC power sources, welding polarities, heats and electrodes for use in joining various metal alloys by the arc welding process. Deals with running beads, butt, and fillet welds in all positions. Emphasizes safety procedures. Lecture 2 hours. Laboratory 6 hours. Total 8 hours per week.

WEL 126 PIPE WELDING I (3 cr.) Teaches metal arc welding processes including the welding of pressure piping in the horizontal, vertical, and horizontal-fixed positions in accordance with section IX of the ASME Code. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

WEL 130 INERT GAS WELDING (3 cr.) Introduces practical operations in the uses of inert-gas-shield arc welding. Discusses equipment, safety operations, welding practice in the various positions process applications, and manual and semi- automatic welding. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

WEL 141 WELDER QUALIFICATION TESTS I (3 cr.) Studies techniques and practices of testing welded joints through destructive and non-destructive tests. Part I of II. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

WEL 145 WELDING METALLURGY (3 cr.) Studies steel classifications, heat treatment procedures, properties of ferrous and non- ferrous metals. Discusses techniques and practices of testing welded joints and destructive/ nondestructive, visual magnetic and fluorescent testing. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

WEL 150 WELDING DRAWING AND INTERPRETATION (2 cr.) Teaches fundamentals required for successful drafting as applied to the welding industry. Includes blueprint reading, geometric principles of drafting and freehand sketching, basic principles of orthographic projection, preparation of drawings and interpretation of symbols. Lecture 2 hours per week.

WEL 198 SEMINAR AND PROJECT (3 cr.) Requires completion of a project or research report related to the student's occupational objectives and a study of approaches to the selection and pursuit of career opportunities in the field. May be repeated for credit.

WORKFORCE DEVELOPMENT

Workforce, Economic and Community Development (WECD)

WECD aligns education and economic development to extend workforce development courses, training and programs into the community, including custom designed programs for employers. Programs are offered to serve business and industry; individuals seeking employment, skills development, credentialing or career training; and lifelong learners looking for engaging ways to enrich their lives. Continuing education may be in the form of credit or career credit courses, online courses, or other formats such as workshops, assessments or on-the-job training.

The division offers programs and courses that are requested within the college's service region. View our schedule of classes and register online at www.ph.augusoft.net. Anyone interested in a course listed in this catalog, or who has a request, should contact us at wecd@patrickhenry.edu or (276) 656-0260.

Our Mission

WECD is committed to plan, promote, and provide quality custom designed training and alternate learning opportunities for anyone, at any place, at any time to support improved quality of life and a vibrant community.

Career Credit Programs

Career credit programs are specialized offerings designed to provide the educational needs of the lifelong learners in the community. Although no college credit will be awarded for these programs, students may earn continuing education units (CEU's) or Continuing Professional Education (CPE). Certificates of completion are awarded for each course listing for continuing education documentation purposes.

Thomas P. Dalton IDEA Center

WECD provides oversight of operations off-campus at the new Thomas P. Dalton IDEA Center in Uptown Martinsville. The IDEA Center is a hub for innovation and entrepreneurship. Citing a desire to see the college maintain a presence in Uptown Martinsville, the family of Mr. Dalton through its generous donation made it possible for the Patrick Henry Community College Real Estate Foundation to purchase the building which bears his name. IDEA Center stands for Innovate. Design. Engineer. Accelerate. The Dalton IDEA Center focuses on product and technology development and houses the college's Fab Lab, a technology accelerator, and Community Development programs.

Programs and Services Overview

EMPLOYER SERVICES
- Custom Designed Training
- Job Skills Assessments
- Pre-Employment Training
- Training Programs
- Workforce Solutions

BUSINESS/PROFESSIONAL DEVELOPMENT
- Administrative Professionals Day Event
- Apprenticeships
- Communication & Grammar
- Craft Artisans
- Customer Service
- Entrepreneurship
- HOPE Program
- Management Boot Camp
- National Career Readiness Certificate

COMPUTERS AND TECHNOLOGY
- Beginners
- Certification Prep
- Digital Photography & Imaging
- Microsoft Office Training Series

HEALTHCARE/DENTAL/VETERINARY
- Certified Nurse Aide
- Clinical Medical Assistant
- Customer Service for Healthcare
- Dental Health Coordinator
- Phlebotomy Technician
- Spanish for Medical Professionals
- Veterinary Assistant

INDUSTRY, TRADES, MANUFACTURING
- Certified Production Technician
- Contractor Business Licensing
- Electrical Groundsman
- Siemens Certification in Automation Fundamentals
- Siemens Mechatronics Boot Camp
- OSHA Training
- ServSafe Manager's Certification
- Tradesman Continuing Education

INNOVATION AND DESIGN
- Fabrication Laboratory

TRANSPORTATION
- Auto Dealership Operator
- Commercial Driver's License
- Motorcycle

PERSONAL ENRICHMENT
- Creative Writing Series
- Culinary Arts
- Dance
- English Language Literacy
- Kids' College
- Math Refresher

VIRTUAL CONTINUING EDUCATION
- Computer Applications
- Green/Renewable Energy
- Health Care Careers
- Industrial and Skilled Trades
- Information Technology
- Management and Leadership
- Occupational Spanish
- Project Management
- Service Careers
- Trades Training

EMPLOYER SERVICES

WECD serves regional businesses and employers by providing customer focused workforce solutions to develop and sustain a qualified workforce. Customized contracted training is designed to meet the training and educational needs of business, industry, government and professional organizations in support of economic development and community enrichment.

Custom Designed Training

Business organizations are often confronted with a wide range of employee training needs that are highly unique to them. WECD can design, develop and tailor training and delivery approaches that align with these distinct needs, scheduling demands and budgetary circumstances. The division offers an extensive curriculum of technology, business, and professional development programs, and can integrate and customize these resources to best fit needs or design an entirely new course or program.

Through organizational consulting, a thorough assessment is conducted of an organization's needs using various resources such as surveys, facilitated focus groups, and job profiling.

Professional workforce training staff partners with clients to:

- Identify the needs that impact business processes
- Develop solutions that fit the company needs and culture, and
- Deliver training or consulting services that provide a return on investment.

Benefits to Business and Industry:

- Courses and programs can be tailored as academic credit or career credit.
- Courses can be delivered to meet the dynamic needs of client scheduling demands.
- Courses can be offered on-campus or on-site.

Examples of Custom Designed Training:

- Customer Service
- Industry-Specific Skills
- Job Skills Assessments
- Leadership Foundations
- Occupational Spanish

Job Skills Assessments

WECD stands ready to help area employers, and new employers coming to the area, with assessing workforce needs and incumbent worker skills. Assessing candidates at the early stages of the hiring process ensures that employers save interviewing time and effort, and identifies strong candidates beforehand. For current staff, assessment can be the key to putting employees into a position in which they can be successful, based on their current skill and competencies. Assessment can also provide the very best employees with an achievable career pathway for them to grow into an even more valuable employee.

WECD offers an assortment of skills assessments for business and industry, which include: Bennett Mechanical, DiSC Personality Profile, HAY Aptitude, In-Basket, Management Readiness Profile, Perdue Pegboard and Assembly Test, Ramsay Combined Basic Skills, Wonderlic and WorkKeys.

Bennett Mechanical Comprehension Test (BMCT) is a widely used and extensively validated assessment of mechanical aptitude. For more than 60 years, this instrument has helped organizations select the best candidates for mechanical, repair, and industrial occupations. The BMCT can help identify candidates with good spatial perception and mechanical reasoning abilities, as well as with an aptitude for learning mechanical processes and tasks.

The DiSC® Personality System is the universal language of behavior. Research has shown that behavioral characteristics can be grouped together in four major divisions called personality styles. People with similar styles tend to exhibit specific behavioral characteristics common to that style. All people share these four styles in varying degrees of intensity. The acronym DISC stands for the four personality styles represented by the letters: D (Dominance); I (Influence); S (Steadiness); C (Conscientiousness).

DISC materials can be utilized to:

- Learn about what motivates each team member.
- Help individuals maximize their personal strengths.
- Enhance teamwork among an organization's staff.
- Motivate others toward greater productivity.
- Resolve internal conflicts and power struggles more quickly.
- Develop motivated teams.

eSkills assessments offer employers customization in pre-employment testing and employee development. eSkills is an assessment partner with PHCC who provides an extensive list of skills tests covering areas from the MS Office® suite, Typing, IT, Language, to Healthcare and a range of other subjects.

HAY Aptitude Test Battery identifies candidates with the necessary clerical skills for accounting, billing or shipping positions to help improve the efficiency and profitability of the operation. They measure a job candidate's ability to compare numbers and names for accuracy, use short-term memory effectively and quickly identify numeric relationships. HAY test scores reflect both the speed and accuracy with which the candidate performs these basic tasks. Using the HAY Aptitude Test Battery as part of the employment testing process will help reduce document, shipping, and other process errors. Production and turn-around time will decrease as fewer discrepancies arise and customers will have increased confidence in product and service delivery.

The Management Readiness Profile (MRP) is an assessment tool that identifies the readiness of candidates for management responsibilities. A better fit between managers and their leadership responsibilities means more effective work teams, higher morale, lower turnover among top performers and maximum profitability. In addition, the MRP contains a Validity-Candidness scale that measures the extent of socially desirable

responses. Lower scores indicate a tendency to exaggerate positive qualities and minimize negative traits.

Ramsay Combined Basic Skills. Ramsay Corporation is a leader in the creation and validation of tests for skilled technicians. With over 35 years of test development experience, Ramsay Corporation has created a series of off-the-shelf testing products to assess maintenance, production, and operator workforces. These online assessments are suitable for pre-employment assessment or pay-for-knowledge programs and can be used when custom validation is not required. The basic skills tests measure skills that could be reasonably expected from all job candidates as the basic requirements for learning and performing entry level or lower level jobs in manufacturing, processing, or operating.

Wonderlic provides employee assessments for each phase of the hiring process. Employment tests include job-specific screening questionnaires, cognitive ability tests, personality tests, skills tests and surveys. Used individually, these employee assessments provide valuable enhancements to an existing employee selection process. Combined, they efficiently gather relevant information and provide a comprehensive “whole person” view of candidate qualifications for efficient, objective employee selection.

WorkKeys is a national job skills assessment system measuring "real-world" skills that employers believe are critical to job success. This system enables educators to identify gaps between student skills and employer needs, which will, in turn, improve students' success in entry-level and subsequent jobs. WorkKeys enables businesses to reduce turnover, overtime, and waste while increasing morale through effective selection decisions and training processes.

As a WorkKeys service scoring center, WECD handles job profiles, testing and scoring.

Skill areas:

- Applied Mathematics
- Applied Technology
- Business Writing
- Listening for Understanding
- Locating Information
- Reading for Information
- Teamwork
- Workplace Observation

Pre-Employment Training

Pre-employment training is a proven method to identify the best applicants in the community and train potential employees on key elements of the job. The pre-employment training program includes assessment of applicants on skill areas specific to the needs of the employer and development of a customized, generally short-term training class.

Sample Pre-Employment Format:

- Company Orientation and Expectations
- Company-Specific Training
- Interpersonal Skills
- Job-Specific Skill Assessments
- Quality Assurance Training

Training Programs

WECD has an extensive inventory of licensed industry training products. Experienced, certified facilitators can deliver any of the following training programs from the different training partners in the resource library:

- Communication Skills
- Computer Applications
- Customer Service
- FiSH
- Industry-Specific Skills
- Leadership Foundations
- Mixing Four Generations in the Workplace

Training Partners:

- AchieveGlobal
- CRM Learning
- Development Dimensions International (DDI)
- DiSC Profiles
- InScape Publishing
- National Retail Federation Customer Service and Retail Training
- Organizational Performance Consulting
- Vital Learning

Workforce Solutions

WECD program designers work closely with clients to be certain that all training supports the overall business goals as well as the corporate culture and values of the organization. Short and long-term evaluation is conducted to be certain that employees not only have learned the skills, but that those skills are applied effectively on the job. A strong workforce is the key to success in every organization.

WECD is committed to hiring trainers and facilitators that are not only academically credentialed, but also highly experienced in business situations. Professional workforce training staff evaluates and monitors the quality of all programs, whether proprietary, or brokered from one of the many partner training providers.

Benefits of Employer Services:

- Enables new businesses to be fully operational upon opening.
- Ensures a skilled workforce.
- Improves organizational productivity and performance.
- Promotes a competitive edge for emerging companies.

- Provides access to high-quality, experienced and credentialed instructors.
- Reduces the need for special training staff.
- Reduces time and research to identify and design effective training programs.
- Reduces the need for designated space and special equipment for training.

BUSINESS/PROFESSIONAL DEVELOPMENT

WECD serves individuals by helping them expand their knowledge, skills and abilities. A wide variety of professional development courses and services designed for improving employability skills, acquiring new skills, upgrading technical skills, and meeting educational requirements for employment and job certification are offered.

Administrative Professionals Day Event

This event celebrates the National Holiday formerly referred to as "Secretary's Day." At PHCC, participants can expect an opportunity to network, enjoy a catered lunch, and receive a motivational message along with door prizes and other surprises to show appreciation on their special day – Administrative Professionals Day.

A certificate is awarded upon successful completion of the above workshop.

Apprenticeships

Apprentices receive on-the-job training combined with classroom-related instruction to ensure that the apprentice is fully trained in all areas of their chosen occupation. Students may work part-time or full-time as registered apprentices. They must be actively pursuing career preparation courses or a diploma, certificate or degree program related to their occupation, include apprenticeship related instruction as part of coursework, and enter into a written training agreement that represents a partnership between the employer, the Virginia Apprenticeship Council, and the student. Apprentices are awarded a journeyman certificate from the Commonwealth of Virginia after successful completion of the on-the-job training and related instruction.

Communication and Grammar for the Workplace

This course will start with getting back to the basics of grammar. It will review parts of speech, proper use of complete sentences, punctuation exercises and building vocabulary. Email etiquette, memos, business letters and various business correspondence will be covered. At the end of the course, the students will gain confidence in their ability to communicate orally or in writing at the workplace.

A certificate is awarded upon successful completion of the above course.

Craft Artisans

Fiber Arts

Purpose: This program offers individuals instruction in the basics of fiber arts as well as guiding them through the various techniques of creating original designs. The program is designed to prepare students for opening their own business, training them in how to promote their product and to maximize the advantages of the internet.

- Advanced Quilting Techniques
- Artisan Entrepreneurship
- Floor Loom Weaving
- Quilting 101

The student will be awarded a certificate upon successful completion of the above courses.

Fine Woodworking and Woodturning

Purpose: This program provides a look at the fine art of wood crafting, along with designing and constructing high quality custom-built furniture and accessories. The program is designed to prepare students for opening their own business, training them in how to promote their product and to maximize the advantages of the internet.

- Artisan Entrepreneurship
- Intermediate Fine Woodworking
- Intermediate Woodturning
- Introduction to Fine Woodworking
- Introduction to Woodturning
- Open Woodworking Studio

The student will be awarded a certificate upon successful completion of the above courses.

Glass Art

Purpose: This program provides individuals the skills needed to develop a career in the intricate techniques of glass art including etching, fusing, slumping and stained glass. The program is designed to prepare students for opening their own business, training them in how to promote their product and to maximize the advantages of the internet.

- Advanced Glass Fusing
- Artisan Entrepreneurship
- Basic Glass Fusing
- Intermediate Stained Glass
- Introduction to Stained Glass
- Open Glass Studio

The student will be awarded a certificate upon successful completion of the above courses.

Jewelry Fabrication

Purpose: This program offers individuals knowledge in the basic processes used in the design and creation of jewelry. Students will gain hands-on experience in using a variety of materials and techniques to design and create unique pieces of wearable art. The program is designed to prepare students for opening their own business, training them in how to promote their product and to maximize the advantages of the internet.

- Advanced Beaded Jewelry
- Artisan Entrepreneurship
- Creating Beaded Jewelry
- Open Jewelry Studio
- Texturizing and Stamping Metal Jewelry
- Working with Precious Metal Clay (PMC)

The student will be awarded a certificate upon successful completion of the above courses.

Pottery

Purpose: This program provides in-depth exploration of the history of pottery making, developing skills to work in a clay medium, in the design and development of pottery as a functional artistic art and to prepare students for positions within associated industries, including tourism, or with the skills needed to establish their own self-supporting business in this niche industry.

- Artisan Entrepreneurship
- Introduction to Hand-Building Pottery
- Open Pottery Studio
- Surface Decoration and Glazing
- Wheel Thrown Pottery

The student will be awarded a certificate upon successful completion of the above courses.

Customer Service Workshops

Effective customer service is crucial for organizations across all industries and sectors, public and private. The following workshops provide vital skills to enhance customer service practice.

- Customer Service for Managers
- Customer Service: It's My Pleasure!
- Customer Service: The Fish! Philosophy

The student is awarded a certificate upon successful completion of each above workshop.

Entrepreneurship

Artisans Center of Virginia Studio School

Artisans Center of Virginia Studio School is a Workforce Development initiative that focuses on honing the vocational and trade skills of Virginia artisans while providing them with the business and entrepreneurial training needed to operate, market and sell their products and services.

- Branding: What Makes You Unique?
- E-Commerce Made Easy
- Bookkeeping and Taxes for Creatives

The student is awarded a certificate upon successful completion of each of the above classes.

SUCCESS MindSET© Entrepreneurial Bootcamp

This course introduces, demonstrates and applies innovation start-up training principles from the inception of an idea through the development of a viable business strategy. The program is equally effective for individuals who are first considering starting a business to those with developed business plans or even early stage enterprises. The SUCCESS MindSET© program uniquely focuses on why successful entrepreneurs are, in fact, successful, including effectual thinking, lean start-up strategies, and customer/target markets development.

The student will be awarded a certificate upon successful completion of the above class.

HOPE (High-Demand Occupational Programs for Employment)

WECD has entered into partnerships with area social services, community service agencies, and business and industry leadership teams (BILTs) to provide support, counseling, training, and job placement for career seekers. The objective is to identify job growth areas within the PHCC service region and engage those businesses in an approach to improving the workforce through short-term training and credentialing.

Career tracts are currently offered in Customer Service, Food Service, and Advanced Manufacturing. These career credit training programs consist of a core of soft skills transferrable to any industry as well as industry-specific courses and internships.

Program Features:

- 12-week vocational training and credentialing
- Curriculum designed to meet employer needs
- Program simulates work environment
- Job readiness skills
- Intensive individual counseling
- Internship and job placement assistance

Core Courses:

- Business Communications
- Character Education
- Computer Skills
- Customer Service Skills
- Life Skills
- Moral Reconation Therapy
- On-Site Training
- Pre-Employment Preparation

- Teamwork Skills
- Workforce Readiness

Program Goals:
- Remove barriers that hinder employment.
- Build self-esteem.
- Empower students to achieve self-sufficiency.
- Increase accountability for life choices.

Intake Assessments:
- CareerScope – Determine what skills you possess and what career would best suit your needs.
- EAPI (Employee Assistance Program Inventory) – Identify common psychological problems to guide appropriate referrals.
- TABE (Test of Adult Basic Education) – Determine degree of education level.

Credentials:
- National Career Readiness Certificate
- IC3
- ServSafe Certification

Management Boot Camp

This course is appropriate for new managers, aspiring managers, and motivated individuals in any organization to equip them with tools and resources to move from a good employee to a great, effective manager.

- Management Boot Camp: From Good to Great!

The student is awarded a certificate upon successful completion of each above workshop.

National Career Readiness Certificate

The National Career Readiness Certificate (NCRC) is a portable credential that can be presented to an employer anywhere in the United States. The NCRC confirms to employers that the participant possesses basic workplace skills in Reading for Information, Applied Math, and Locating Information – the three skills that most jobs require. Based on established ACT WorkKeys assessments, the NCRC gives you an edge when seeking a new position and verifies that you have the skills to handle common workplace tasks.

A NCRC credential will enable the participant to:
- Earn a transferable, transportable State and National credential.
- Enhance your resume and show perspective employers concrete proof of your skills.
- Improve your success in entry-level jobs.
- Enhance your chance for promotion.

NCRC is awarded at four levels: Platinum, Gold, Silver and Bronze. Each is an objective validation to employers anywhere in the U.S. that an individual has met or exceeded the necessary foundational skills for a percentage of the 16,000 occupations in the WorkKeys database. For example, a Gold certificate verifies that an individual has the necessary skills for 93% of occupations.

ACT KeyTrain is a complete interactive training system based on the same skills and skill progressions found in the ACT WorkKeys assessment system. Three of the KeyTrain courses – Applied Mathematics, Locating Information, and Reading for Information – helps participants to prepare for the NCRC.

COMPUTERS AND TECHNOLOGY

Beginners

- Boot Camp: Computers for Beginners
- How to Buy a Computer
- Introduction to Microsoft Windows
- Plus 50: Beginning Computer, Part 1
- Plus 50: Beginning Computer, Part 2
- Plus 50: Beginning Computer, Part 3

Certification Prep

- Cisco Certified Essentials Network Technician, Part 1
- Cisco Certified Essentials Network Technician, Part 2

Digital Photography & Imaging

- Beginning Adobe Photoshop
- Intermediate Adobe Photoshop
- Intermediate Nuts and Bolts of Your Digital Camera
- Nuts and Bolts of Your Digital Camera

Microsoft Office Training Series

Purpose: This Microsoft Office 6-hour training series is designed to provide basic computer skills and knowledge of word processing, spreadsheet, database, and presentation software. These hands-on courses introduce practical techniques that students can use right away to gain needed job skills and enhance workflow.

- Microsoft Access
- Microsoft Excel
- Microsoft Excel Advanced
- Microsoft Excel Intermediate
- Microsoft PowerPoint
- Microsoft Word
- Microsoft Word Advanced
- Microsoft Word Intermediate

The student is awarded a certificate upon successful completion of each above workshop.

HEALTHCARE / DENTAL / VETERINARY

Certified Nurse Aide

Purpose: This program is designed to provide skills and knowledge to prepare the student to apply and take the Virginia National Nurse Aide Assessment Program (NNAAP) test to become a Certified Nurse Aide (CNA) in Virginia.

- Health Care Technician I
- Health Care Technician II

The student will be awarded a certificate upon successful completion of the above courses.

Clinical Medical Assistant

Purpose: This short-term training program prepares students for the National Healthcareer Association Certified Clinical Medical Assistant Exam. The Certified Clinical Medical Assistant is an unlicensed, multi-skilled healthcare practitioner who is competent in both clinical and administrative procedures. As a CCMA you may perform some or all of the following tasks: interview patients, measure and record vital signs, prepare exam rooms, clean and sterilize medical equipment, administer injections, as well as topical or oral medications, perform venipuncture and point-of-care testing. High School diploma or GED required. Tuition includes $105 assessment fee.

- Clinical Medical Assistant
- Clinical Medical Assistant Internship
- Job Readiness

The student will be awarded a certificate upon successful completion of the above program.

Customer Service for Healthcare

Purpose: These courses are designed to help students gain a better understanding of how fundamental customer service principals apply to the healthcare industry.

- Customer Service for Healthcare, Part 1
- Customer Service for Healthcare, Part 2

The student will be awarded a certificate upon successful completion of the above classes.

Dental Health Coordinator

The Community Dental Health Coordinator is a dental team member whose primary function is the prevention of dental disease with an emphasis on community health worker skills.

CDHC Basic Program:
• 12 months of online instruction.
• Clinicals for one weekend a month in Martinsville, VA.
• 6 month internship in an approved safety net clinic.

Phlebotomy Technician Program

Purpose: This short-term training program introduces students to basic medical terminology, anatomy, physiology, components of health care delivery and clinical laboratory structure. Students learn techniques of specimen collection, specimen handling, and patient interactions. Upon successful completion of the program, students will be eligible to sit for the National Healthcareer Association Phlebotomy Technician Exam. High School diploma or GED required. Tuition includes $105 assessment fee.

- Job Readiness
- Phlebotomy Technician Program
- Phlebotomy Technician Internship

The student will be awarded a certificate upon successful completion of the above program.

Spanish for Medical Professionals

Purpose: Participants will gain the basic tools to bridge the communication gap with your Spanish-speaking patients. These fun classes are customized by the instructor to meet the students' needs.

- Spanish for Medical Professionals I
- Spanish for Medical Professionals II

The student is awarded a certificate upon successful completion of each above course.

Veterinary Assistant

Purpose: This program will prepare the student to assist a Veterinarian or Veterinary Technician in their daily tasks. This course combines 101.5 hours of instruction, 40 hours of hands-on training, and 28 hours of job readiness skills training to prepare the student to enter the workforce at a much faster pace.

- Job Readiness
- Veterinary Assistant Program
- Veterinary Assistant Internship

The student will be awarded a certificate upon successful completion of the above program.

INDUSTRY, TRADES, MANUFACTURING

Certified Production Technician

Purpose: This program was designed to align with Manufacturing Skills Standards Council (MSSC) Certified Production Technician Program and to help individuals enhance their core knowledge and skills for production work, from

entry-level to front-line supervisory level. The nationwide MSSC System is a nationally recognized certificate that is based on industry-defined and federally endorsed national standards.

- MSSC CPT: Safety
- MSSC CPT: Quality Practices & Measurement
- MSSC CPT: Manufacturing Processes and Production
- MSSC CPT: Maintenance Awareness

Those successfully completing assessments in each of the above four modules are awarded CPT certification.

Contractor Business Licensing

This course is intended for first-time applicants for a Class C, B or A license and changing a business type. This course is not specifically designed to prepare the student to take the contractor licensing exam in Virginia. This course is recognized by the Commonwealth of Virginia, Department of Professional and Occupational Regulation (DPOR), and Board for Contractors as meeting the requirements for pre-licensure or remedial education.

- Basic Contractor Licensing

The student will be awarded a certificate upon successful completion of the above course.

Electrical Groundsman

Purpose: This program, offered in partnership with TCR Management Group, provides individuals the skills and certifications needed to develop a career as an Electrical Groundsman. Classes are held over a five week period with students attending class four days each week, eight hours each day. The student receives 160 hours of training and instruction. Job placement assistance is provided.

- Electrical Groundsman Training

The student will be awarded a certificate upon successful completion of the above program.

Occupational Safety and Health Administration (OSHA) Training

Purpose: These courses help supervisors and workers reduce the risk of workplace hazards.

- OSHA 10
- OSHA 30

The student is awarded a certificate and a wallet card upon successful completion of each above course.

ServSafe Manager's Certification

Purpose: This program provides food safety training, exams and educational materials to foodservice managers. Students can earn the ServSafe Food Protection Manager Certification.

- ServSafe Manager's Certification

The student will be awarded a certificate upon successful completion of the above course.

Siemens Mechatronics (SMSCP Level 1) Boot Camp

Purpose: Mechatronics is the integration of mechanical, electrical, robotics and computer software. This industry-recognized certification program prepares students to work effectively in a variety of industrial and manufacturing settings.

- Digital Fundamentals and PLCs
- Electrical Components
- (Electro) Pneumatic and Hydraulic Control Circuits
- Mechanical Components and Electrical Drives

The student is awarded a certificate upon successful completion of the above courses.

Siemens Certification in Automation Fundamentals

Purpose: This program is available from Siemens Cooperates with Education (SCE). This certification is a way to provide a structured, repeatable method to validate the knowledge of Siemens Totally Integrated Automation solutions while utilizing recommended SIMATIC best practices. The online certification exam is offered to instructors and students of automation and related fields and can be completed after a recommended training path is satisfied.

Siemens Variable Frequency Drives (VFD) Boot Camp

- Electrical Motor Drives
- Motor Controls

PLC Boot Camp

The student will be awarded a certificate upon successful completion of the above courses.

Tradesman Continuing Education

Purpose: Journeyman, Master Plumbers, Electricians, HVAC technicians, and Gas Fitters are required by the Virginia Board of Contractors to take a pre-determined number of continuing education hours specific to their trade as part of the licensing process. Plumbers, HVAC technicians, and Electricians must take three hours of continuing education in their field. Gas

Fitters must take one hour (intended for Journeyman and Master Gas Fitters, Liquefied Petroleum Gas Fitters, and Natural Gas Fitters). The continuing education must be completed prior to the expiration date on the license.

Tradesman license renewal courses cover new definitions, code changes, general requirements, impacts on the job, general use and special equipment included in the respective codes.

The student will be awarded a certificate upon successful completion of each above course.

INNOVATION AND DESIGN

Fabrication Laboratory

A collaboration between PHCC, the Martinsville-Henry County Economic Development Corporation (EDC) and New College Institute (NCI), the Fab Lab is part of the U.S. Fab Lab Network and offers opportunities for digital fabrication to individuals and companies in ways that are not practical or economical using mass production. The Fab Lab, which is located at the Thomas P. Dalton IDEA Center in Uptown Martinsville, provides training and equipment to students, businesses, and entrepreneurs. Equipment in the Fab Lab includes a 3D printer, laser engraver, vinyl cutter, CNC machine, plasma cutter, mini-mill, vacuum former, injection molder, and welder. A training course, How to Make Almost Anything, must be completed prior to equipment use.

- Fab Lab Series
- How to Make Almost Anything
- Introduction to Fab Lab
- Lunch and Learn Series
- Maker Monday Series

The student is awarded a certificate upon successful completion of each above workshop.

TRANSPORTATION

Auto Dealership Operator

The dealer-operator of any new independent motor vehicle dealership will be required to successfully complete a two-day course of study before they will be allowed to take the dealer-operator qualification test at any DMV Customer Service Center. Curriculum and instruction are provided by Virginia Independent Automobile Dealers Association. The course is open to all existing dealers and their employees.

- Auto Dealer Operator Course

The student will be awarded a certificate upon successful completion of the above course.

Commercial Driver's License

Class A driver training program, in partnership with CDS Tractor Trailer Training, is designed to be skill based and hands-on to prepare you for the trucking industry. This course is intended to focus on developing a strong work ethic, teamwork, and self-confidence. The program consists of classroom instruction, various backing maneuvers, and on-the-road training. Part-time and full-time programs are offered.

Motorcycle

The following courses are provided to teach riders of all skill levels the basic fundamentals needed to safely operate a motorcycle.

- Motorcycle 3-Wheel Basic Rider Course
- Motorcycle Basic Rider Course
- Motorcycle Basic Rider Course 2

The student will be awarded a Virginia Motorcycle Safety Course Completion Certificate upon successful completion of each above course.

PERSONAL ENRICHMENT

WECD serves the community by helping them explore new leisure opportunities through a wide variety of career credit special interest classes that are designed for personal enrichment, learning a new skill or just plain fun.

Creative Writing Series

Designed for writers of all levels, the following classes include short lessons with a variety of techniques and examples.

- Creative Writing
- Write What You Know: Fiction Writing
- Your Experiences Matter: Personal Narrative Non-Fiction

Culinary Arts

- The Art of Chocolate

Dance

- Ballroom Dancing
- Beginner Line Dance
- Beginner Tap Dance
- Line Dance Level II

English Language Literacy

This course is designed as a reading and writing refresher for students scoring below the minimum on the VPT English test.

- English Language Literacy

Kids College

PHCC offers Creative Kids College each summer. The goal is to provide unique learning opportunities to children ages 9-14. A

variety of programs are offered to inspire creativity and give kids an opportunity to explore career opportunities.

- Artist Adventures Camp
- Cooking Around the World Camp
- Glass Art Camp
- Junior Top Chef Camp
- Minecraft Makers Camp
- Photography Camp

Math Refresher

This course is designed as a math refresher for students scoring below the minimum on the VPT Math test. Course is open entry/open exit; 15 hours instructional and 15 hours open learning.

- Math Refresher

VIRTUAL CONTINUING EDUCATION

PHCC offers a wide range of open enrollment online career credit courses and programs to meet the needs of our students. To learn more and register, visit www.patrickhenry.edu/online-education.

Our Partners:

ed2go offers an array of highly interactive courses that you can take entirely over the Internet. All of our courses are led by expert instructors, many of whom are nationally known authors. Our online courses are affordable, fun, fast, convenient, and geared just for you. They consist of 24 hours of instruction; begin the third Wednesday of each month and last 6 weeks.

Gatlin Education career programs are designed to provide the skills necessary to acquire professional caliber positions for many in-demand occupations. These programs are designed by a team of professionals from each respective field, who work to provide you with an effective web-based learning experience. Many programs are designed to prepare individuals to take national certification exams.

Health Ed Today programs provide necessary skills to pursue employment opportunities in hospitals, clinics, physicians' offices and other healthcare organizations nationwide. Most programs include "externships".

ProTrain Online offers affordable, self-paced, online certificate programs that can train you for the latest, in-demand job skills.

Computer Applications

PHCC offers a wide selection of computer application classes through **ed2go**. Several versions of Word, Excel, Access, and PowerPoint are available. To learn more, visit: www.ed2go.com/patrickhenry.

Green/Renewable Energy

PHCC, in association with **ProTrain Online**, offers 22 programs specializing in home and commercial energy auditing and weatherization, LEED certification, and renewable energy training. To learn more visit: http://phcc.theknowledgebase.org/

Health Care Careers

PHCC, in partnership with **Health Ed Today**, offers online programs designed to provide the skills necessary to excel in a professional healthcare environment. These courses are highly interactive and provide students with an enriched learning experience. Additionally, these programs include access to an online community with interactive content and robust student services. Certain programs include clinical externships and most programs lead to certifications. To learn more, visit: www.healthedtoday.com/patrickhenry.

Programs Available:

- Dental Assisting
- Electronic Health Records
- Medical Billing and Coding
- And many more!

Industrial and Skilled Trades

PHCC has partnered with **ProTrain Online** to offer the following industrial and skilled trade courses. To learn more, visit: http://phcc.theknowledgebase.org/

Courses Available:

- HazWoper 24-Hour Moderate Risk
- OSHACampus - 30 Hour Construction Industry Training w/ Study Guide

Information Technology Training

PHCC, in partnership with **Gatlin Education**, offers online certification programs designed to provide the skills necessary to acquire professional level positions for many IT occupations. These programs are designed by a team of IT professionals, who provide an effective web-based learning experience. Microsoft Office Specialist (MOS) and Microsoft Certification Training are among the many programs available. To learn more, visit: www.gatlineducation.com/phcc.

PHCC has also partnered with **ProTrain Online** to offer certification in various A+ Network Security programs, CISCO, CompTia, and Sun Certified JAVA. Courses are also offered in Microsoft Certified Tech Specialist (MCTS), Microsoft Certified IT Professional (MCITP), Microsoft Certified System Engineer (MCSE), and SQL Server, to name a few. To learn more visit: http://phcc.theknowledgebase.org/.

Management and Leadership

PHCC, in partnership with **ProTrain Online**, offers self-paced, online programs for in-demand job skills. To learn more, visit: http://phcc.theknowledgebase.org/

Courses Available:

- Business Writing
- Human Resources
- HRCI / PHR Certification
- Six Sigma

Occupational Spanish

PHCC, in partnership with **ProTrain Online**, offers Spanish for Banking, Spanish for Law Enforcement, Spanish for Health Care, Spanish for Food Service, Spanish for EMTs and Paramedics, plus many more. To learn more, visit: http://phcc.theknowledgebase.org/

Project Management

PHCC's partner, **ed2go**, is a global Registered Education Provider for the Project Management Institute (PMI). Online courses provide essential information to prepare for the Project Management Professional (PMP®) and the Certified Associate in Project Management (CAPM®) exams offered by the Project Management Institute (PMI®). To learn more, visit: www.ed2go.com/patrickhenry.

Service Careers

PHCC and **ProTrain Online** offer training for the aspiring entrepreneur. To learn more, visit: http://phcc.theknowledgebase.org/.

Courses Available:

- Event Planning Professional
- Florist / Floral Design Entrepreneur
- Interior Decorating / Design Entrepreneur
- Wedding Consultant Entrepreneur
- And many more!

Trades Training

PHCC, in association with **RedVector**, offers online continuing education and professional development training for architects, interior designers, building inspectors, engineers, land surveyors, landscape architects, contractors, and other trades. Boasting more than 2,000 essential and interactive offerings, these courses are designed using the latest E-learning methods to be fast, informative, and user-friendly! To learn more, visit: www.patrickhenry.edu/online-education.

CAREER CREDIT COURSE DESCRIPTIONS

Advanced Beaded Jewelry. Learn to take your jewelry making skills to the next level. Students will learn many techniques including wire wrapping, multiple strand beading, and the use of multiple media to create beautiful jewelry.

Advanced Glass Fusing. Using multiple layers of glass, inclusion of objects, slumping and fusing, students will create glass art utilizing all techniques of fused glass.

Advanced Quilting Techniques. This class is for the experienced quilter. Open lab for completing assignments or individual designs and to work in a self-paced, supportive and creative environment. Teaching staff will assist with ideas, motivation, suggestions and techniques. Prerequisite: four sessions of Quilting 101 or instructor approval. Students purchase own supplies.

Artisan Entrepreneurship. The basics of starting and operating a business, designed to meet the specific needs of the Artisan Business. Traditional business planning, negotiation strategies, communication skills, developing strategic business relationships and creative issues are addressed in the class.

Artist Adventures Camp. Spark your creativity! We will focus on a different artistic medium each day and create projects in drawing, painting, printmaking, collage and sculpture!

Auto Dealer Operators Course. Instruction provided by Virginia Independent Automobile Dealers Association (VIADA). The path to a Dealer-Operator license begins with a required two-day course of study. The course takes the attendee from establishing the dealership under local zoning and Dealer Board requirements, through the sales process with its multitude of forms, laws and regulations, in to a sampling of opening and operating expenses, and ending with a discussion on ethics. The course is open to all existing dealers and their employees.

Ballroom Dancing. Students will learn the basic steps of the waltz, fox trot, swing, rumba, cha-cha and tango, in this refreshing, invigorating, and physically demanding course.

Basic Contractor Licensing. This course is designed to provide a basic look at the Statutes and Regulations that govern contractor licensing in Virginia, to include a review of the different types of licenses available and the qualifications for each: Standards of Practice, Prohibited Acts and How to Avoid Violations of the Regulations.

Basic Glass Fusing. Students will learn the basics of glass fusing. Students will learn to cut glass, select the correct types of glass, and design a project. They will learn how to prepare the molds and kiln for firing as well as the basics of kiln firing. Each student will make several small pieces, such as tiles, coasters and/or sun-catchers.

Beginner Line Dance. This class will introduce the beginner dancer to basic Line dance steps and incorporate those steps into fun, easy dances to a wide variety of music genres. Learn dances to your favorite Pop, Country, Oldies, Show Tunes, etc. Line dance is a proven stress reliever and an excellent way to fit exercise and fitness into your lives.

Beginning Adobe Photoshop. Certified professional photographer Ricky Dawson will demonstrate how to improve the quality of your digital images in Adobe Photoshop. Learn to download digital files by using a card reader instead of the camera cord, and resize images for social media or e-mailing. Simple color correcting will also be explained and lighting the print. Each student will use their own pictures on a jump drive to work with in class.

Beginning Tap Dance. Students will learn basic tap steps and combine them to form dances. No experience necessary. Great way for theater students to add skills to their repertoire! Students must purchase their own tap shoes.

Bookkeeping and Taxes for Creatives. "Are you a right-brained, creative type and “not a numbers person”? This is the class for you! Learn some left-brained tricks to help you make and keep more money doing what you love. What are deductible expenses? Does mileage count? How about deducting part of my house? It's time to hire an employee, now what? Learn some basic and easy ways to track your expenses, from low-tech to high-tech options.

Boot Camp: Computers for Beginnings. Does your child know more about that computer than you do? Never touched a computer? How about this: "I only know how to turn it on and turn it off!" If either of these descriptions fit you, then we have a class especially for you. Allow us to calm your fears and teach you how the computer can be very useful. You can't break it! We'll even introduce you to a few of our friends - Microsoft Office, Internet, and email. They are easier to get to know than you think.

Branding: What Makes You Unique? Do you want your marketing to connect with customers? A crucial step in developing your business is to define your “Unique Value Proposition" targeting your market’s needs/desires, and communicating how you stand out from competitors. Find key words to connect with your audience, then turn them into a foundational statement that will inform your brand, logo, mission, and ignite your marketing.

Cisco Certified Essentials Network Technician, Part 1. In preparation for the CCENT certification, this course provides instruction in the fundamentals of networking environments, the basics of router operations, and basic router configuration.

Cisco Certified Essentials Network Technician, Part 2. In preparation for the CCENT certification, this course provides problem solving experience to supplement instruction in Introductory Routing - Cisco. Pre-requisite: CISCO CCENT Part 1.

Clinical Medical Assistant. This short-term training program prepares students for the National Healthcareer Association Certified Clinical Medical Assistant Exam. The Certified Clinical Medical Assistant is an unlicensed, multi-skilled healthcare

practitioner who is competent in both clinical and administrative procedures. As a CCMA you may perform some or all of the following tasks: interview patients, measure and record vital signs, prepare exam rooms, clean and sterilize medical equipment, administer injections, as well as topical or oral medications, perform venipuncture and point-of-care testing. High School diploma or GED required. Tuition includes $105 assessment fee.

Clinical Medical Assistant Internship. This course will provide students with a hands-on experience in a professional setting where they can apply the principles and techniques of Clinical Medical Assistant learned, while completing the training. Will use a checklist of minimum skills that should be observed or practiced over the course of the internship. To be eligible for the internship, students must successfully complete the classroom portion, submit to a thorough background check, drug screening and meet other requirements.

Cooking Around the World Camp. Take your taste buds on a trip around the world! Learn about the cuisine of a different country every day and make delicious meals like pasta from scratch, crepes (thin French pancakes), and more.

Creating Beaded Jewelry. Learn to make jewelry like a professional. Using a variety of tools and techniques, students will design and create wearable works of art.

Creative Writing. Mix real life with your imagination to experiment with a range of fictional writing. Participate in friendly classes that include short lessons with a variety of techniques and examples. Each class session includes time to write, discuss, and share, if you choose. For writers of all levels. Open to teens and adults.

Customer Service for Healthcare, Part 1. Students will gain an understanding of how fundamental customer service principals apply to the healthcare industry and how to deliver exceptional customer service. They will learn how to measure customer satisfaction and how to set expectations and recover lost customers. They will gain insight into generational differences as it may relate to the healthcare environment and have a better self-awareness.

Customer Service for Healthcare, Part 2. A continuation of the first part of this series, this course will develop skills to ensure that patients and customers receive top-quality service. This Service Plus Healthcare Workshop will give your organization the edge it needs—loyal customers who demonstrate “the three Rs” of loyalty: Return to your facility because they view you as their health care provider of choice, Refer others, and Relate to service providers as partners in their care.

Customer Service for Managers. Management's role is to model the practices that are exemplary for the front line staff. Participants will learn how to define customer service and identify customers. The workshop will also cover the importance of first impressions and perceptions, communication, and dealing with difficult people.

Customer Service Recovery. Using our best communication skills to deal with conflict will result in a stronger organization, a better relationship with your customers, and a team that is dedicated to results. This workshop will focus on strategies to embrace complaints as a way to re-engage customers, empower staff to effectively deal with difficult situations, learn when to say ¿no¿ in a respectfully, but authoritative manner, and recognize complaint management as a critical element of your business strategy.

Customer Service: It’s My Pleasure! This 2-hour facilitator led workshop will expose participants to the culture demonstrated at Chick-fil-A Martinsville, where the team members believe in providing guests the best Restaurant experience possible. At Chick-Fil-A they're committed to providing Second Mile Service and they strive to exceed customer expectations. Get in on the secrets to their ability to provide a unique customer experience!

Customer Service: The Fish! Philosophy. Whether you are on the front-lines or leading the organization, the FISH! Philosophy has something to offer you! Educators, government, hospitality, or industry – this class can help your organization strengthen teamwork, employee retention, customer service, and morale. The FISH! Philosophy taps into the passion, energy and creativity that is already inside each of us. When people choose to bring their best to work, it leads to lasting excellence.

Digital Fundamentals and PLCs. This course covers the fundamentals of digital logic and an introduction to programmable logic controllers (PLCs) in a complex mechatronic system with a focus on the automation system SIMATIC S7-300 and the appropriate programming software STEP7. Using computer simulation, students will learn the role PLCs play within a mechatronic system or subsystem. They will also learn basic elements of PLC functions by writing small programs and testing these programs on an actual system. Students will learn to identify malfunctioning PLCs, as well as to apply troubleshooting strategies to identify and localize problems caused by PLC hardware.

E-Commerce Made Easy. If you’re not selling online, you’re missing out on your share of the cash! Learn how to set up your online store, connect it to your bank, and take your business on the road. We’ll show you how to use systems such as Google, PayPal and Square to quickly set up an e-commerce and fulfillment system that won’t break the bank, and has the added benefit of going everywhere that you go.

Electrical Components. This course covers the basics of electrical components in a complex mechatronic system. Based upon a physical system, students will learn the basic functions and physical properties of electrical components, and the roles they play within the system. Technical documentation such as data sheets, schematics, timing diagrams and system specifications will also be covered. By understanding the complete system, the flow of energy through the system and measurements on the components, students will learn and apply troubleshooting strategies to identify, localize and correct

malfunctions. Preventive maintenance and safety issues for electrical components within the system will be discussed.

Electrical Motor Drives. This course introduces advanced operations, set up, programming, and troubleshooting of electronic motor drives that are used for the control of industrial AC motors.

(Electro) Pneumatic and Hydraulic Control Circuits. This course covers the basics of pneumatic, electro pneumatic and hydraulic control circuits in a complex mechatronic system. Students will learn the functions and properties of control elements based upon physical principles, and the roles they play within the system. Technical documentation such as data sheets, circuit diagrams, displacement step diagrams and function charts will also be covered.

Electrical Groundsman Training. PHCC, in partnership with TCR Management Group, offers an Electrical Groundsman training program. Under the supervision of the linemen, a groundsman performs a variety of tasks in the construction, maintenance, and repair of electrical distribution and transmission lines and equipment. Groundsman training is the first step towards a career as an Electrical Lineman. HS diploma or GED not required. Certifications earned: OSHA 10 T&D, Basic Work Zone, Flagging, and CPR/First Aid. Preparation for the CDL Class A learners permit included. TCR, boasting an 85% job placement rate, offers job placement assistance for students who successfully complete the training and pass exams.

English Language Literacy. This course provides basic integrated reading and writing instruction for students who require extensive preparation to succeed in college-level English courses. Students will place into this course based on placement test score. Upon successful completion and faculty recommendation, students retest the Virginia Placement Test (VPT) to determine their English placement.

Fab Lab 3D printing. The class will educate the student in using 3d design programs like 123D Design to produce 3d models to print out on the 3d printer. Students will also learn the basics on small 3d printers.

Fab Lab Innovation Camp. During this four-day camp, students will learn to conceptualize, design, and prototype ideas for new products. Students will use various Fabrication Lab equipment including plasma cutters, laser cutters, 3D printers, and more to manufacture their ideas. Students will design and produce a variety of projects to take home, like t-shirts, stickers, and 3D-printed objects.

Floor Loom Weaving. This class introduces students to principles and techniques of floor loom weaving, including warp preparation, dressing the loom, pattern drafting, and basic loom-controlled and weaver-controlled weaves. Emphasis will be on developing a personal approach to fiber media. Offered at the Reynolds Homestead.

Fab Lab CNC Laser. This class will educate the student in using Inkscape to design files for projects. The student will be trained on using the Universal Laser to create projects with the lasered designs like hinged boxes, ornamentals and veneers.

Fab Lab CNC Mill. The class will educate the student in using 3d design programs like 123D Design to produce 3d models to be cut out on a CNC Mill. These projects will be carved pieces like negative molds to cast.

Fab Lab Vinyl Cutter. This class will educate the student in using Inkscape to design files for projects. The student will be trained on using the Roland vinyl cutter to create projects with the vinyl designs like signage, etching and stenciling.

Glass Art Camp. Come explore the world of glass art! Students will explore a wide range of glass art techniques, including the safe use of tools and the basics of cutting glass. Throughout the week, students will create several beautiful and functional pieces.

Health Care Technician I. Teaches basic care skills with emphasis on physical, social, emotional, and spiritual needs of patients. Covers procedures, communications and interpersonal relations; observations, charting and reporting; care planning, safety and infection control; anatomy and physiology, nutrition and patient feeding; ethics, death and dying. Prepares multi-skilled health care workers to care for patients of various ages with special emphasis on geriatric nursing, home health, and long and short-term care facilities.

Health Care Technician II. Applies theory through laboratory experience for health care technicians to work in home health, long and short-term facilities. Prerequisite: successful completion of Health Care Technician I.

How to Buy a Computer. Shopping for technology can be intimidating even for the savviest of shoppers with all the features, packages, and price ranges. Decisions, decisions. Should you choose a PC or a laptop? Do you prefer the convenience of access while on-the-go or will you use the computer in a comfortable place in the home. In this workshop, discover which features are most important to consider to find the best technology for your needs.

How to Make Almost Anything. This class will teach students how to use free software like 123d Design, Sculptris and Inkscape to design. Students will then learn how to use the cnc vinyl cutter, cnc laser, cnc mill and the 3D printer to make their designs.

Intermediate Adobe Photoshop. Certified professional photographer Ricky Dawson will demonstrate how to make a collage of photos by using the different features in Adobe Photoshop. The photos will be combined using layers so any correction can be made without starting over. Different type styles and other effects will also be added to personalize. Each student will use their own pictures on a jump drive to work with in class.

Intermediate Fine Woodworking. Have a woodworking project in mind, let our instructor, Burr Fox, help guide you with your project! Class is for students with some woodworking experience.

Intermediate Nuts and Bolts of Your Digital Camera. Certified professional photographer Ricky Dawson will help students gain understanding of how to use their digital camera's advanced menus and settings. Move to automatic to learn how the dials can improve your photos. Each student should bring their own digital camera and owner's manual.

Intermediate Stained Glass. This class explores the history and techniques of stained glass. Students will produce stained glass samples using traditional joining techniques.

Intermediate Woodturning. The student will be introduced to the turning of hollow forms, elements of design and form for artistic merit. The student will be given the opportunity to explore the various types of wood medium to produce a viable creation of wood.

Introduction to Fab Lab. Students will learn digital fabrication and advanced manufacturing skills to help produce a personal manufactured product. The students will learn open sourced software on the computer workstations, then create, design and send files to machines to make the design a reality.

Introduction to Fine Woodworking. Students learn about wood as a medium for realizing their designs. Topics include the milling technique, mortise and tenor joinery, surface preparations, and application of finishes. Students learn safe use of the radial saw, jointer, planer, table saw, band saw, drill press, horizontal boring machine and router.

Introduction to Hand-Building Pottery. Students will be introduced to the fundamental concepts and skills related to hand crafted hand-built pottery. Students will develop the ability to produce sound work and will learn the basic glazing techniques.

Introduction to Microsoft Windows. If you've recently purchased a computer, or if you aren't familiar with your computer's operating system, this course is for you! In this course, students will gain "hands-on" experience using computers and software, including how to operate a computer, common terminology, and the various elements of the windows operating system.

Introduction to Stained Glass. Explores the history and techniques of stained glass. Produces stained glass samples using traditional joining techniques.

Introduction to Woodturning. The student will be introduced to the turning of hollow forms, elements of design and form for artistic merit. The student will be given the opportunity to explore the various types of wood medium to produce a viable creation of wood.

Job Readiness. This course will provide students with an understanding of what it means to be ready for work. The student will also be able to write an effective resume, complete a job application and hone their interview skills. Students will understand how to develop short and long term employment goals and how to use training and feedback opportunities to advance their career. Student has the opportunity to earn the National Career Readiness Certificate by scoring at least a 3 on the WorkKeys assessments for Locating Information, Applied Math and Reading for Information.

Junior Top Chef Desserts Camp. Got a sweet tooth? Chef Colleen of Uptown Sweets will teach you to make a variety of delicious desserts and decorate them with flair!

Line Dance Level II. This class is designed for the dancer who has command of basic beginner steps and wants to learn dances that are a bit more challenging. Prior completion of Beginner Line Dance is required, or may enroll with instructor approval. Have fun dancing to a variety of music genres while improving your strength, stamina, and overall health.

Lunch and Learn @ Fab Lab 3D Printing. The class will educate the student in using 3d design programs like 123D Design to produce 3d models to print out on the 3d printer. Students will also learn the basics on small 3d printers.

Lunch and Learn @ Fab Lab CNC Laser. This class will educate the student in using Inkscape to design files for projects. The student will be trained on using the Universal Laser to create projects with the lasered designs like hinged boxes, ornamentals and veneers.

Lunch and Learn @ Fab Lab CNC Mill/Molds. The class will educate the student in using 3d design programs like 123D Design to produce 3d models to be cut out on a CNC Mill. These projects will be carved pieces like negative molds to cast.

Lunch and Learn @ Fab Lab Vinyl Cutter. This class will educate the student in using Inkscape to design files for projects. The student will be trained on using the Roland vinyl cutter to create projects with the vinyl designs like signage, etching and stenciling.

Maker Monday: Hack Your Garden! The attendees will get freebies and learn how to program garden activities with a raspberry pi or Arduino.

Maker Monday: Make Your Pet Tag! Attendees will be able to design and make a pet tag.

Maker Monday: Raspberry Pi / Arduino Projects. Learn how to code for Raspberry pi and Arduino.

Maker Monday: Robotics. Attendees will learn how to program robotic applications for home use.

Management Boot Camp: From Good to Great! A good employee is valuable to any organization. Often a GOOD employee is the person who takes initiative, meets goals and deadlines, comes early and stays late, and does whatever is needed to drive results. When promotion opportunities arise, the company has no hesitation in making the GOOD employee the newest leader/manager/supervisor but they don't always provide the resources and training the GOOD employee needs to be able to provide effective management for the business.

Math Refresher. The student will add, subtract, multiply, and divide whole numbers. The student will round and estimate whole numbers to the nearest given place value. The student will solve contextual problems using whole numbers, including finding perimeter and area. The student will use exponent rules and the order of operations to simplify expressions. All student learning outcomes for this unit must be completed without the use of a calculator.

Mechanical Components and Electrical Drives. This course covers the basics of mechanical components and electrical drives in a complex mechatronic system. Based upon a physical system, students will learn the basic functions and physical properties of mechanical components as well as electrical drives (AC and DC), and the roles they play within the system. They will also learn about mechanical components which lead and support the energy through a mechanical system to increase efficiency and reduce wear and tear. Materials, lubrication requirements and surface properties will be examined.

Microsoft Access. Let's start by learning when to use Access and when to use Excel. This course helps you answer that essential question so you don't set off in the wrong direction. Then you're ready for the foundation of your database - learn to create tables and progress to creating queries, forms, and reports, using the latest version of Microsoft Access.

Microsoft Excel. Are you trying to keep your household or are you a business owner relying on Excel to keep your organization thriving? You will learn the techniques in this workshop that will make your job easier. You'll start with the essential skills of spreadsheet creation: how to create a workbook, enter and edit text and numbers, and add rows or columns. You will progress to creating a chart and making changes to a chart after you create it, using the latest version of Microsoft Excel.

Microsoft Excel Advanced. Have you ever wished there was a class for proficient users of Microsoft Excel? Where you can learn how to do specific tasks related to your job, or your needs? For instance: financial functions, tables, conditional formatting, creating templates, and linking worksheets and charts to a Word document, using the latest version of Excel. Caution: This course is not for the beginner! When you pre-register for the course, please inform the PHCC staff of two tasks you want to learn in this 6 hour workshop. Based on the responses of the participants, the instructor will plan a workshop that teaches those tasks.

Microsoft Excel Intermediate. This workshop assumes each student has a basic working knowledge of Microsoft Excel. If the student has recently completed the beginner workshop and wants to take their skills to the next level, then this workshop is for you! In this hands-on workshop, you'll learn how easy it is to create macros that let you manipulate data with the push of a button, using the latest version of Microsoft Excel. And you'll set yourself apart from the casual Excel user by adding VLOOKUP, INDEX & MATCH, and Excel's other time-saving functions to your repertoire.

Microsoft PowerPoint. In this workshop, you will start with the steps to create a slide show, start to finish, using the latest version of PowerPoint. But you will soon discover many ways to add flair to your presentation. You will learn how to create visual appeal out of text and other information like tables, Excel charts, your digital photos, sound, narration, and videos like You Tubes.

Microsoft Word. This workshop will begin with the basics of the latest version of this very popular word processing program. Participants will learn how to use Microsoft Word to create their first document, edit text, and make that original document look great. The instructor will introduce templates and how you can format your document with styles; decorate the document with backgrounds, borders, and text effects; and insert tables. Before the end of the workshop, you will also learn how to use mail merge, revise documents and track changes, and other tasks Word makes simple to do.

Microsoft Word Advanced. Have you ever wished there was a class for proficient users of Microsoft Word? Where you can learn how to do specific tasks related to your job, or your needs? For instance: Word features used to prepare a document for distribution, creating forms, advanced mail merge features, collaborating changes with other users, or creating a webpage using the latest version of Microsoft Word. Caution: This class is not for the beginner! When you pre-register for the course, you must inform the PHCC staff of two tasks you want to learn in this 6 hour workshop. Based on the responses of the participants, the instructor will plan a workshop that teaches those tasks. The class seating is limited, and granted to students in the order that the payment and registration is received.

Microsoft Word Intermediate. Microsoft Word is a powerful and popular program, yet most people use only a fraction of its features. This workshop assumes each student has a basic working knowledge of Microsoft Word. If the student has recently completed the beginner workshop and wants to learn more, then this workshop is for you. We'll cover how to use Word as a simple desktop publishing program to create signs, flyers, menus, brochures, and even newsletters. You'll learn how to insert different types of graphics in a document including digital photographs from your own camera, clip art images provided by Microsoft, and different types of charts such as bar, line, or pie charts, using the latest version of Microsoft Word.

Minecraft Makers Camp. Design your world in Minecraft and 3d print, laser cut and build your characters out in real life using various Fab Lab equipment including laser cutters, 3d printers, and more to manufacture their ideas.

Motor Controls. This course instruction will include troubleshooting and servicing electrical controls, electric motors, motor controls, motor starters, relays, overloads, instruments and control circuits.

Motorcycle 3-Wheel Basic Rider Course (3WBRC) This course is designed to teach the novice or experienced sidecar or trike rider the skills necessary to safely operate a three-wheeled vehicle on the street, even if you have never ridden any kind of motorcycle. The 16-hour course takes the rider through the basics of motorcycle operation (controls are much the same as a two wheeled motorcycle), effective braking, turning skills and obstacle avoidance, as well as safe riding strategies. The course consists of both classroom instruction and hands-on riding instruction. All riding is done on a closed course. Rider Coaches have been trained and certified by the Motorcycle Safety Foundation. Motorcycles will be provided or participants can use their own.

Motorcycle Basic Rider Course. This course provides classroom and actual motorcycle operator training in a controlled environment. Riders learn basic skills of motorcycle operation, effective braking and obstacle avoidance, as well as safe riding strategies. This course prepares the rider for state licensing.

Motorcycle Basic Rider Course 2 (BRC2) This course is designed to assist licensed riders in improving their skills and to provide a safe environment for them to expand the limits of their abilities. The course includes a brief review of basic skills, critical advanced turning and braking skills, as well as counter steering and obstacle avoidance. Student is expected to provide their own motorcycle. The course is informative, enjoyable and valuable. We recommend that riders refresh and hone their riding skills every year with a BRC2.

MSSC CPT: Maintenance Awareness. This module focuses on skills necessary for production workers to: perform preventive maintenance; monitor indicators for correct operation; recognize possible maintenance issues with electrical, pneumatic, lubrication, automation, hydraulic, and couplings.

MSSC CPT: Manufacturing Processes and Production. This module focuses on skills necessary for production workers to: identify needed resources; coordinate work flow; perform and monitor process; and document product & process.

MSSC CPT: Quality Practices & Measurement. This module focuses on skills necessary for production workers to: read and interpret prints; compare measurements to prints; document quality problems; and suggest ideas for continuous improvement.

MSSC CPT: Safety. This module provides baseline knowledge and skills needed to maintain a safe and productive work environment and ensure the safe use of equipment for production workers.

Nuts and Bolts of Your Digital Camera. Do you have a digital camera but not sure what all of those buttons mean? This class will help you understand your camera by learning how the menu and buttons affect your camera and images. Students will also learn how to improve the quality of their images. Students will need to bring their own camera and manual.

Open Glass Studio. Open lab for completing assignments or individual designs and to work in a self-paced, supportive and creative environment. Teaching staff will meet with students on a pre-determined schedule to assist with ideas, motivation, suggestions and techniques.

Open Jewelry Studio. Supervised lab time for completing projects and independent study.

Open Pottery Studio. Open lab for completing assignments or individual designs and to work in a self-paced, supportive and creative environment. Teaching staff will meet with students on a pre-determined schedule to assist with ideas, motivation, suggestions and techniques.

Open Woodworking Studio. Open lab for completing assignments or individual designs and to work in a self-paced, supportive and creative environment. Teaching staff will meet with students on a pre-determined schedule to assist with ideas, motivation, suggestions and techniques.

OSHA 10. The 10-Hour Occupational Safety and Health Administration (OSHA) Outreach Training Program for General Industry program is targeted to entry level workers and covers general industry safety and health hazards which may be encountered. Required in 7 hours of the training are an Introduction to OSHA, Walking and Working Surfaces, Emergency Action Plans and Fire Prevention/Protection, Electrical Safety, Personal Protective Equipment, and Hazard Communication. At least two additional topics from a list of electives will be covered for a total of ten (10) training hours. Participants will receive: Instruction from authorized OSHA Outreach trainers and a Certification card upon successful completion of training and final exam. OSHA student completion cards do not expire per OSHA requirements.

OSHA 30. This 30-hour Occupational Safety and Health Administration (OSHA) Outreach Training Program for General Industry is targeted to supervisors or workers with some safety responsibility. Through this training, OSHA helps to ensure that workers are more knowledgeable about workplace hazards and their rights, and contribute to our nation's productivity.

Phlebotomy Technician Program. This short-term training program introduces students to basic medical terminology, anatomy, physiology, components of health care delivery and clinical laboratory structure. Students learn techniques of specimen collection, specimen handling, and patient interactions. Upon successful completion of the program,

students will be eligible to sit for the National Healthcareer Association Phlebotomy Technician Exam. High School diploma or GED required. Tuition includes $105 assessment fee.

Phlebotomy Technician Internship. This course will provide students with a hands-on experience in a professional setting where they can apply the principles and techniques learned in the Clinical Medical Assistant program. The student will use a checklist of minimum skills that should be observed or practiced over the course of the internship. The student will perform a minimum of 30 venipuncture and 10 capillary sticks on live individuals. To be eligible for the internship, students must successfully complete the classroom portion, submit to a thorough background check and drug screening, and meet other requirements.

Photography Camp. Are you addicted to Instagram? Obsessed with selfies? Take your digital photo skills to the next level with lessons from a certified professional photographer as you walk along the scenic uptown streets and trails of Martinsville. Students will learn to use a digital camera and will be introduced to Adobe Photoshop for editing and creating a photo collage.

Plus 50: Beginning Computer, Part 1. This class is designed for the 50+ student. This course is designed to take away the fear and uncertainty of using the computer. Students will learn about computer systems, their components and the different types of electronic communications. They will gain experience with email, web browsers and the different types of websites. The keyboarding component will include the layout of the keyboard, placement of their fingers on the home keys and the uses of the function keys will be included.

Plus 50: Beginning Computer, Part II. This class is designed for the 50+ student. Topics introduced in this class are broken into three areas: Keyboarding includes a review of the touch method of keying letters. Use of Functions keys and number pad will also be covered; Computing Fundamentals introduces computer concepts on topics such as maintenance, terminology, using a jump drive to create folders and store files and operating systems; Internet and E-mail will continue with more basic concepts of the Internet and searching topics. Students will practice attaching documents, saving attachments, reply and forward email and netiquette rules. Other topics to be covered will be computer viruses and other security measures.

Plus 50: Beginning Computer, Part III. This class is designed for the 50+ student. Students will be introduced to Microsoft Word and will create documents, use Wordwrap, changing margins, and learn when to use the enter key. Students will learn how to navigate documents with arrow keys, the CTRL + Home and CTRL + End keys. Backspace and Delete keys will also be discussed. Editing text and documents, using the home ribbon, applying backgrounds and borders and creating tables will be covered.

Quilting 101. This class is for those students who want to learn how to start and finish a quilt and learn new tips and tricks for piecing, hand sewing and machine quilting. Students will complete a sampler project to show off their new skills. Supply list will be available upon registration.

ServSafe Manager's Certification. This course meets the requirements for certification. Most food service facilities are required to have a Certified Food Service Manager on duty at least eight hours of the operational day. Students successfully completing this course should register with the Health Department to receive a Food Service Manager's Certificate, which is valid for three years.

Spanish for Medical Professionals I. Introduces Spanish to those in the healthcare professions. Emphasizes oral communication, cultural awareness, and practical medical vocabulary. May include oral drill and practice.

Spanish for Medical Professionals II. This course is a second part of the introduction to Spanish for those in the healthcare professions. Emphasizes vocabulary, conversational Spanish, and cultural appreciation.

Star Wars: May the Fab Be With You! Star Wars Day attendees will get to make Star Wars related objects like lightsabers and costumes.

Surface Decoration & Glazing. In this class students will learn several finishing techniques used in ceramics, for both functional food safe pottery, as well as decorative work. Students will also learn how to add texture to raw clay using tools and slip carving. Students will also glaze their pieces.

Texturizing and Stamping Metal Jewelry. Personalized jewelry is all the craze! During this class students will learn various techniques to texturize and customized metal. Students will create earrings, charms, necklaces and more.
Tradesman license renewal course. Covers new definitions, code changes, general requirements, impacts on the job, general use and special equipment included in the respective codes.

The Art of Chocolate. Perfect for the chocolate lover: Learn the art of tasting dark chocolates from around the world as you learn about their origins, then learn to temper chocolate and make your own bars! Taught by chocolatier Jason Worley.

Veterinary Assistant Program. This short-term training program presents basic information about general and veterinary management of small domestic animals, especially dogs and cats. Course objectives include: animal and human safety, animal restraint, nutrition, common diseases, medical terminology, medical history, and administrative duties related to maintaining an efficient front office.

Veterinary Assistant Internship. This course will provide students with a hands-on experience in a professional setting where they can apply the principles and techniques learned in the veterinary assistant program. The student will use a checklist of minimum skills that should be observed or practiced over the course of the internship. To be eligible for the

internship, students must successfully complete the classroom portion, submit to a thorough background check and drug screening, and meet other requirements.

Wheel Thrown Pottery. Come and learn the fine art of wheel thrown ceramics! Beginning students will learn basic throwing technique, with a focus on centering, making cylinders, bowls and perhaps your first teapot. We will discuss various throwing methods, wheel trimming, and adding handles, lids etc. The class is also open to students with some wheel-throwing experience who would like to continue developing their skills.

Working with Precious Metal Clay (PMC). Precious Metal Clay (PMC) is copper in a workable clay-like form. In this workshop you will learn the steps to successfully work with PMC. Students will also learn the proper use of tools; mold making techniques to create textures; firing techniques, and finishing techniques. Students will complete several pieces of jewelry during the class.

Write What You Know: Fiction Writing. You KNOW you have something you want to say. Try out various approaches to help you discover topics you care about, which you'll shape into writing that reveals, informs, and entertains. Participate in friendly classes that include short lessons with a variety of techniques and examples. Each class session includes time to write, discuss, and share, if you choose. For writers of all levels. Open to teens and adults.

Your Experiences Matter: Personal Narrative Non-Fiction. Join us weekly for an evening of inspiration, discussion and writing as we experiment with various easy, fun approaches to writing creative nonfiction, fiction, and poetry! Open to teens and adults. For writers of all levels.