Please Note:
Prerequisites: A course taken prior to another course.

1. CFCC administers one placement test: Accuplacer (CPT). These scores are listed in the course descriptions. Satisfactory scores on placement tests taken at other colleges (SAT, ACT, COMPASS) may be used to waive Reading, Writing and Mathematical prerequisites. See page 10, the Placement Test Advising Guide, for additional information or talk with a counselor.

2. Receipt of transfer credit for ENG 111 or above will waive the Reading and/or Writing prerequisites for certain courses.

3. Receipt of a curriculum math credit will waive the prerequisites for certain courses.

Corequisites: A course taken at the same time as another course or prior to the course to be taken.

Some courses may fulfill a general education requirement-communication or humanities/fine arts, mathematics, natural science, or social/behavioral science-in one of the following programs: AA (Associate in Arts), AS (Associate in Science), AFA (Associate in Fine Arts), AGE (Associate in General Education), AAS (Associate in Applied Science), DIP (Diploma), or CER (Certificate). Any course with a general education classification is identified by the last statement or the last two statements in the course description. Each statement should be read carefully. “SACS” in the description refers to CFCC’s accrediting agency, the Southern Association of Colleges and Schools.

ACA 111 College Student Success 1 0 0 1
Prerequisites: None
Corequisites: None

This course introduces the college’s physical, academic, and social environment and promotes the personal development essential for success. Topics include campus facilities and resources; policies, procedures, and programs; study skills; and life management issues such as health, self-esteem, motivation, goal-setting, diversity, and communication. Upon completion, students should be able to function effectively within the college environment to meet their educational objectives.

ACA 122 College Transfer Success 1 0 0 1
Prerequisites: None
Corequisites: None

This course provides information and strategies necessary to develop clear academic and professional goals beyond the community college experience. Topics include the CAA, college culture, career exploration, gathering information on senior institutions, strategic planning, critical thinking, and communication skills for a successful academic transition. Upon completion, students should be able to develop an academic plan to transition successfully to senior institutions. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

ACC 120 Prin of Financial Acct 3 2 0 4
Prerequisites: Proficiency in Reading - A grade of “C” or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading
Corequisites: None

This course introduces business decision-making accounting information systems. Emphasis is placed on analyzing, summarizing, reporting, and interpreting financial information. Upon completion, students should be able to prepare financial statements, understand the role of financial information in decision-making and address ethical considerations. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

ACC 121 Prin of Managerial Acct 3 2 0 4
Prerequisites: A grade of “C” or better in ACC 120
Corequisites: None

This course includes a greater emphasis on managerial and cost accounting skills. Emphasis is placed on managerial accounting concepts for external and internal analysis, reporting and decision-making. Upon completion, students should be able to analyze and interpret transactions relating to managerial concepts including product-costing systems. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

ACC 122 Principles of Financial Accounting II 3 0 0 3
Prerequisites: ACC 120 with a grade of “C” or better
Corequisites: None

This course provides additional instruction in the financial accounting concepts and procedures introduced in ACC 120. Emphasis is placed on the analysis of specific balance sheet accounts, with in-depth instruction of the accounting principles applied to these accounts. Upon completion, students should be able to analyze data, prepare journal entries, and prepare reports in compliance with generally accepted accounting principles.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 129</td>
<td>Individual Income Taxes</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Prerequisites: ACC 120</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACC 130</td>
<td>Business Income Taxes</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Prerequisites: ACC 129</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACC 140</td>
<td>Payroll Accounting</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Prerequisites: ACC 115 or ACC 120</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACC 150</td>
<td>Accounting Software Application</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Prerequisites: ACC 115 or ACC 120 and CIS 110</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>or CIS 111</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACC 175</td>
<td>Hotel &amp; Restaurant Acct</td>
<td>3</td>
<td>2</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Prerequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This course introduces the relevant laws governing individual income taxation. Topics include tax law, electronic research and methodologies, and the use of technology for preparation of individual tax returns. Upon completion, students should be able to analyze basic tax scenarios, research applicable tax law, and complete various individual tax forms.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 220</td>
<td>Intermediate Accounting I</td>
<td>3</td>
<td>2</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Prerequisites: ACC 120 and ACC 122</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACC 221</td>
<td>Intermediate Acct II</td>
<td>3</td>
<td>2</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Prerequisites: ACC 220</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACC 225</td>
<td>Cost Accounting</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Prerequisites: ACC 121</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AGR 139</td>
<td>Intro to Sustainable Ag</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Prerequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This course introduces the relevant laws governing business and fiduciary income taxes. Topics include tax law relating to business organizations, electronic research and methodologies, and the use of technology for the preparation of business tax returns. Upon completion, students should be able to analyze basic tax scenarios, research applicable tax law, and complete various business tax forms. This course is also available through the Virtual Learning Community (VLC).

This course covers federal and state laws pertaining to wages, payroll taxes, payroll tax forms, and journal and general ledger transactions. Emphasis is placed on computing wages; calculating social security, income, and unemployment taxes; preparing appropriate payroll tax forms; and journalizing/posting transactions. Upon completion, students should be able to analyze data, make appropriate computations, complete forms, and prepare accounting entries.

This course introduces microcomputer applications related to accounting systems. Topics include general ledger, accounts receivable, accounts payable, inventory, payroll, and correcting, adjusting, and closing entries. Upon completion, students should be able to use a computer accounting package to solve accounting problems.

This course covers generally accepted accounting principles and the uniform system of accounts for small hotels and motels of the American Hotel and Motel Association. Emphasis is placed on the accounting cycle, analysis of financial statements, and payroll procedures including treatment of tips. Upon completion, students should be able to demonstrate competence in the accounting principles and procedures used in hotels and restaurants.

This course is a continuation of the study of accounting principles with in-depth coverage of theoretical concepts and financial statements. Topics include generally accepted accounting principles and an extensive analyses of financial statements. Upon completion, students should be able to demonstrate competence in the conceptual framework underlying financial accounting, including the application of financial standards.

This course is a continuation of ACC 220. Emphasis is placed on special problems which may include leases, bonds, investments, ratio analyses, present value applications, accounting changes, and corrections. Upon completion, students should be able to demonstrate an understanding of the principles involved and display an analytical problem-solving ability for the topics covered.

This course introduces the nature and purposes of cost accounting as an information system for planning and control. Topics include direct materials, direct labor, factory overhead, process, job order, and standard cost systems. Upon completion, students should be able to demonstrate an understanding of the principles involved and display an analytical problem-solving ability for the topics covered. This course is also available through the Virtual Learning Community (VLC).

This course will provide students with a clear perspective on the principles, history and practices of sustainable agriculture in our local and global communities. Students will be introduced to the economic, environmental and social impacts of agriculture. Upon completion, students will be able to identify the principles of sustainable agriculture as they relate to basic production practices.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>AHR 110 Intro to Refrigeration</td>
<td>AHR 110 Intro to Refrigeration</td>
<td>2</td>
<td>6</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Prerequisites: None</td>
<td>Corequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>This course introduces the basic refrigeration process used in mechanical refrigeration and air conditioning systems. Topics include terminology, safety, and identification and function of components; refrigeration cycle; and tools and instrumentation used in mechanical refrigeration systems. Upon completion, students should be able to identify refrigeration systems and components, explain the refrigeration process, and use the tools and instrumentation of the trade.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| AHR 111 HVACR Electricity | AHR 111 HVACR Electricity | 2     | 2   | 0        | 3      |
| Prerequisites: None | Corequisites: None |
| This course introduces electricity as it applies to HVACR equipment. Emphasis is placed on power sources, interaction of electrical components, wiring of simple circuits, and the use of electrical test equipment. Upon completion, students should be able to demonstrate good wiring practices and the ability to read simple wiring diagrams. |

| AHR 112 Heating Technology | AHR 112 Heating Technology | 2     | 4   | 0        | 4      |
| Prerequisites: None | Corequisites: None |
| This course covers the fundamentals of heating including oil, gas, and electric heating systems. Topics include safety, tools and instrumentation, system operating characteristics, installation techniques, efficiency testing, electrical power, and control systems. Upon completion, students should be able to explain the basic oil, gas, and electrical heating systems and describe the major components of a heating system. |

| AHR 113 Comfort Cooling | AHR 113 Comfort Cooling | 2     | 4   | 0        | 4      |
| Prerequisites: AHR 110 | Corequisites: None |
| This course covers the installation procedures, system operations, and maintenance of residential and light commercial comfort cooling systems. Topics include terminology, component operation, and testing and repair of equipment used to control and produce assured comfort levels. Upon completion, students should be able to use psychometrics, manufacturer specifications, and test instruments to determine proper system operation. |

| AHR 114 Heat Pump Technology | AHR 114 Heat Pump Technology | 2     | 4   | 0        | 4      |
| Prerequisites: AHR 110 or AHR 113 | Corequisites: None |
| This course covers the principles of air source and water source heat pumps. Emphasis is placed on safety, modes of operation, defrost systems, refrigerant charging, and system performance. Upon completion, students should be able to understand and analyze system performance and perform routine service procedures. |

| AHR 115 Refrigeration Systems | AHR 115 Refrigeration Systems | 1     | 3   | 0        | 2      |
| Prerequisites: AHR 110 | Corequisites: None |
| This course introduces refrigeration systems and applications. Topics include defrost methods, safety and operational control, refrigerant piping, refrigerant recovery and charging, and leak testing. Upon completion, students should be able to assist in installing and testing refrigeration systems and perform simple repairs. |

| AHR 120 HVAC Maintenance | AHR 120 HVAC Maintenance | 1     | 3   | 0        | 2      |
| Prerequisites: None | Corequisites: None |
| This course introduces the basic principles of industrial air conditioning and heating systems. Emphasis is placed on preventive maintenance procedures for heating and cooling equipment and related components. Upon completion, students should be able to perform routine preventive maintenance tasks, maintain records, and assist in routine equipment repairs. |

| AHR 130 HVAC Controls | AHR 130 HVAC Controls | 2     | 2   | 0        | 3      |
| Prerequisites: AHR 111 or ELC 111 or ELC 112 | Corequisites: None |
| This course covers the types of controls found in residential and commercial comfort systems. Topics include electrical and electronic controls, control schematics and diagrams, test instruments, and analysis and troubleshooting of electrical systems. Upon completion, students should be able to diagnose and repair common residential and commercial comfort system controls. |

| AHR 133 HVAC Servicing | AHR 133 HVAC Servicing | 2     | 6   | 0        | 4      |
| Prerequisites: None | Corequisites: AHR 112 or AHR 113 |
| The course covers the maintenance and servicing of HVAC equipment. Topics include testing, adjusting, maintaining, and troubleshooting HVAC equipment and record keeping. Upon completion, students should be able to adjust, maintain, and service HVAC equipment. |

| AHR 140 All-Weather Systems | AHR 140 All-Weather Systems | 1     | 3   | 0        | 2      |
| Prerequisites: AHR 112 or AHR 113 | Corequisites: None |
| This course covers the principles of combination heating and cooling systems including gas-electric, all-electric, and oil-electric systems. Topics include PTAC’s and package and split-system units. Upon completion, students should be able to understand systems performance and perform routine maintenance procedures. |
### AHR 210 Residential Building Code 2 2 0 2

**Prerequisites:** None  
**Corequisites:** None  

This course covers the residential building codes that are applicable to the design and installation of HVAC systems. Topics include current residential codes as applied to HVAC design, service, and installation. Upon completion, students should be able to demonstrate the correct usage of residential building codes that apply to specific areas of the HVAC trade.

<table>
<thead>
<tr>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
</tbody>
</table>

### ALT 120 Renewable Energy Tech 2 2 0 3

**Prerequisites:** None  
**Corequisites:** None  

This course provides an introduction to multiple technologies that allow for the production and conservation of energy from renewable sources. Topics include hydro-electric, wind power, passive and active solar energy, tidal energy, appropriate building techniques, and energy conservation methods. Upon completion, students should be able to demonstrate an understanding of renewable energy production and its impact on humans and their environment.

<table>
<thead>
<tr>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>2</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>

### ALT 230 Biofuels Waste Management 2 0 0 2

**Prerequisites:** ALT 110  
**Corequisites:** None  

This course is designed to address the issues of sustainability and environmental stewardship involved with the production and use of biofuels. Topics include the sustainable production of feedstocks, efficient and low energy methods of fuel production, and management of biofuels sidestreams. Upon completion, students should be able to identify and mediate environmental impacts of biofuels and discuss the importance of producing biofuels using sustainable practices.

<table>
<thead>
<tr>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
</tbody>
</table>

### ALT 250 Thermal Systems 2 2 0 3

**Prerequisites:** None  
**Corequisites:** None  

This course introduces concepts, tools, techniques, and materials used to convert thermal energy into a viable, renewable energy resource. Topics include forced convection, heat flow and exchange, radiation, the various elements of thermal system design, regulations, and system installation and maintenance. Upon completion, students should be able to demonstrate an understanding of geothermal and solar thermal systems and corresponding regulations.

<table>
<thead>
<tr>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>2</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>

### ANT 210 General Anthropology 3 0 0 3

**Prerequisites:** Proficiency in Reading - A grade of “C” or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading  
**Corequisites:** None  

This course introduces the physical, archaeological, linguistic, and ethnological fields of anthropology. Topics include human origins, genetic variations, archaeology, linguistics, primatology, and contemporary cultures. Upon completion, students should be able to demonstrate an understanding of the four major fields of anthropology. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences. This course may meet the SACS social/behavioral science requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.

### ANT 220 Cultural Anthropology 3 0 0 3

**Prerequisites:** Proficiency in Reading - A grade of “C” or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading  
**Corequisites:** None  

This course introduces the nature of human culture. Emphasis is placed on cultural theory, methods of fieldwork, and cross-cultural comparisons in the areas of ethnology, language, and the cultural past. Upon completion, students should be able to demonstrate an understanding of basic cultural processes and how cultural data are collected and analyzed. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences. This course may meet the SACS social/behavioral science requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.

### ANT 240 Archaeology 3 0 0 3

**Prerequisites:** Proficiency in Reading - A grade of “C” or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading  
**Corequisites:** None  

This course introduces the scientific study of the unwritten record of the human past. Emphasis is placed on the process of human cultural evolution as revealed through archaeological methods of excavation and interpretation. Upon completion, students should be able to demonstrate an understanding of how archaeologists reconstruct the past and describe the variety of past human cultures. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement at select institutions only.
ARC 111 Introduction to Architectural Technology
Prerequisites: Proficiency in Reading - A grade of “C” or better in ENG 085 or RED 080 or minimum Accuplacer score of 57 on Reading. A grade of “C” or better in MAT 060 or successful completion of DMA 010, DMA 020, and DMA 030.
Corequisites: ARC 112
This course introduces basic architectural drafting techniques, lettering, use of architectural and engineer scales, and sketching. Topics include orthographic, isometric, and oblique drawing techniques using architectural plans, elevations, sections, and details; reprographic techniques; and other related topics. Upon completion, students should be able to prepare and print scaled drawings within minimum architectural standards.

ARC 112 Construction Materials & Methods
Prerequisites: Proficiency in Reading - A grade of “C” or better in ENG 085 or RED 080 or minimum Accuplacer score of 57 on Reading. A grade of “C” or better in MAT 060 or successful completion of DMA 010, DMA 020, and DMA 030.
Corequisites: ARC 111
This course introduces construction materials and their methodologies. Topics include construction terminology, materials and their properties, manufacturing processes, construction techniques, and other related topics. Upon completion, students should be able to detail construction assemblies and identify construction materials and properties.

ARC 113 Residential Architectural Technology
Prerequisites: ARC 111 and ARC 112
Corequisites: ARC 114 and ARC 114A
This course covers intermediate residential working drawings. Topics include residential plans, elevations, sections, details, schedules, and other related topics. Upon completion, students should be able to prepare a set of residential working drawings that are within accepted architectural standards.

ARC 114 Architectural CAD
Prerequisites: ARC 111 and ARC 112
Corequisites: ARC 113 and ARC 114A
This course introduces basic architectural CAD techniques. Topics include basic commands and system hardware and software. Upon completion, students should be able to prepare and plot architectural drawings to scale within accepted architectural standards.

ARC 114A Architectural CAD Lab
Prerequisites: ARC 111 and ARC 112
Corequisites: ARC 113 and ARC 114
This course provides a laboratory setting to enhance architectural CAD skills. Emphasis is placed on further development of commands and system operation. Upon completion, students should be able to prepare and plot scaled architectural drawings.

ARC 131 Building Codes
Prerequisites: ARC 112 or CAR 111, ENG 111
Corequisites: None
This course covers the methods of researching building codes for specific projects. Topics include residential and commercial building codes. Upon completion, students should be able to determine the code constraints governing residential and commercial projects.

ARC 132 Specifications and Contracts
Prerequisites: ARC 112
Corequisites: None
This course covers the development of written specifications and the implications of different contractual arrangements. Topics include specification development, contracts, bidding, material research, and agency responsibilities. Upon completion, students should be able to write a specification section and demonstrate the ability to interpret contractual responsibilities.

ARC 211 Light Construction Technology
Prerequisites: ARC 112 and ARC 113 and ARC 230
Corequisites: ARC 221
This course covers working drawings for light construction. Topics include plans, elevations, sections, and details; schedules; and other related topics. Upon completion, students should be able to prepare a set of working drawings which are within accepted architectural standards.

ARC 213 Design Project
Prerequisites: ARC 211, ARC 221, ARC 230
Corequisites: None
This course provides the opportunity to design and prepare a set of contract documents within an architectural setting. Topics include schematic design, design development, construction documents, and other related topics. Upon completion, students should be able to prepare a set of commercial contract documents.

ARC 220 Advanced Architect CAD
Prerequisites: ARC 114 and ARC 114A
Corequisites: ARC 230
This course provides file management, productivity, and CAD customization skills. Emphasis is placed on developing
advanced proficiency techniques. Upon completion, students should be able to create prototype drawings and symbol libraries, compose sheets with multiple details, and use advanced drawing and editing commands.

**ARC 221 Architectural 3-D CAD** 1 4 0 3  
Prerequisites: ARC 114, ARC 220, ARC 230  
Corequisites: None

This course introduces architectural three-dimensional CAD applications. Topics include three-dimensional drawing, coordinate systems, viewing, rendering, modeling, and output options. Upon completion, students should be able to prepare architectural three-dimensioning drawings and renderings.

**ARC 230 Environmental Systems** 3 3 0 4  
Prerequisites: ARC 111 and MAT 121, MAT 151, MAT 161, MAT 171, or MAT 175  
Corequisites: ARC 220

This course introduces plumbing, mechanical (HVAC), and electrical systems for the architectural environment. Topics include basic plumbing, mechanical, and electrical systems for residential and/or commercial buildings, with an introduction to selected code requirements. Upon completion, students should be able to develop schematic drawings for plumbing, mechanical, and electrical systems and perform related calculations.

**ARC 231 Architectural Presentations** 2 4 0 4  
Prerequisites: ARC 111  
Corequisites: ARC 221

This course introduces architectural presentation techniques. Topics include perspective drawing, shadow projection, texturization, rendered plans, elevations, and other related topics. Upon completion, students should be able to present ideas graphically and do rendered presentation drawings.

**ARC 235 Architectural Portfolio** 2 3 0 3  
Prerequisites: ARC 211, ARC 220, ARC 221  
Corequisites: None

This course covers the methodology for the creation of an architectural portfolio. Topics include preparation of marketing materials and a presentation strategy using conventional and/or digital design media. Upon completion, students should be able to produce an architectural portfolio of selected projects.

**ARC 264 Digital Architecture** 1 3 0 2  
Prerequisites: ARC 220 and ARC 221 and ARC 231  
Corequisites: None

This course covers multiple digital architectural techniques. Topics include spreadsheets and word processing procedures, on-line resources, modems, e-mail, image capture, multimedia, and other related topics. Upon completion, students should be able to transmit/receive electronic data, create multimedia presentations, and produce a desktop publishing document.

**ART 111 Art Appreciation** 3 0 0 3  
Prerequisites: None  
Corequisites: None

This course introduces the origins and historical development of art. Emphasis is placed on the relationship of design principles to various art forms including but not limited to sculpture, painting, and architecture. Upon completion, students should be able to identify and analyze a variety of artistic styles, periods, and media. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. The course may meet the SACS humanities/fine arts requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.

**ART 114 Art History Survey I** 3 0 0 3  
Prerequisites: Proficiency in Reading - A grade of “C” or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading  
Corequisites: None

This course covers the development of art forms from ancient times to the Renaissance. Emphasis is placed on content, terminology, design, and style. Upon completion, students should be able to demonstrate an historical understanding of art as a product reflective of human social development. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. This course may meet the SACS humanities/fine arts requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.

**ART 115 Art History Survey II** 3 0 0 3  
Prerequisites: Proficiency in Reading - A grade of “C” or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading  
Corequisites: None

This course covers the development of art forms from the Renaissance to the present. Emphasis is placed on content, terminology, design, and style. Upon completion, students should be able to demonstrate an historical understanding of art as a product reflective of human social development. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. This course may meet the SACS humanities/fine arts requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.
COURSE DESCRIPTIONS

ART 116 Survey of American Art  3 0 0 3
Prerequisites: Proficiency in Reading - A grade of “C” or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading
Corequisites: None

This course covers the development of American art forms from colonial times to the present. Emphasis is placed on architecture, painting, sculpture, graphics, and the decorative arts. Upon completion, students should be able to demonstrate understanding of the history of the American creative experience. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. This course may meet the SACS humanities/fine arts requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.

ART 117 Non-Western Art History  3 0 0 3
Prerequisites: Proficiency in Reading - A grade of “C” or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading
Corequisites: None

This course introduces non-Western cultural perspectives. Emphasis is placed on, but not limited to, African, Oriental, and Oceanic art forms throughout history. Upon completion, students should be able to demonstrate an historical understanding of art as a product reflective of non-Western social and cultural development. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. This course may meet the SACS humanities/fine arts requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.

ART 121 Two-Dimensional Design  0 6 0 3
Prerequisites: None
Corequisites: None

This course introduces the elements and principles of design as applied to two-dimensional art. Emphasis is placed on the structural elements, the principles of visual organization, and the theories of color mixing and interaction. Upon completion, students should be able to understand and use critical and analytical approaches as they apply to two-dimensional visual art. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major or elective course requirement. This course may meet the SACS humanities/fine arts requirement for AGE, AAS, DIP, or CER programs.

ART 122 Three-Dimensional Design  0 6 0 3
Prerequisites: None
Corequisites: None

This course introduces basic studio problems in three-dimensional visual design. Emphasis is placed on the structural elements and organizational principles as applied to mass and space. Upon completion, students should be able to apply three-dimensional design concepts. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major or elective course requirement.

ART 131 Drawing I  0 6 0 3
Prerequisites: None
Corequisites: None

This course introduces the language of drawing and the use of various drawing materials. Emphasis is placed on drawing techniques, media, and graphic principles. Upon completion, students should be able to demonstrate competence in the use of graphic form and various drawing processes. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major or elective course requirement. This course may meet the SACS humanities/fine arts requirement for AGE, AAS, DIP, or CER programs.

ART 132 Drawing II  0 6 0 3
Prerequisites: ART 131
Corequisites: None

This course continues instruction in the language of drawing and the use of various materials. Emphasis is placed on experimentation in the use of drawing techniques, media, and graphic materials. Upon completion, students should be able to demonstrate increased competence in the expressive use of graphic form and techniques. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major or elective course requirement. This course may meet the SACS humanities/fine arts requirement for AGE, AAS, DIP, or CER programs.

ART 171 Computer Art I  0 6 0 3
Prerequisites: ART 131
Corequisites: None

This course introduces the use of the computer as a tool for solving visual problems. Emphasis is placed on fundamentals of computer literacy and design through bit-mapped image manipulation. Upon completion, students should be able to demonstrate an understanding of paint programs, printers, and scanners to capture, manipulate, and output images. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major or elective course requirement. This course may meet the SACS humanities/fine arts requirement for AGE, AAS, DIP, or CER programs.

ART 212 Gallery Assistantship I  0 2 0 1
Prerequisites: None
Corequisites: None

This course covers the practical application of display techniques. Emphasis is placed on preparation of artwork for installation, hardware systems, and exhibition graphics. Upon completion, students should be able to demonstrate basic gallery exhibition skills. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 214 Portfolio and Resume</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Prerequisites:</td>
<td>None</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corequisites:</td>
<td>None</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This course covers resume writing, interview skills, and the preparation and presentation of an art portfolio. Emphasis is placed on the preparation of a portfolio of original artwork, the preparation of a photographic portfolio, approaches to resume writing, and interview techniques. Upon completion, students should be able to mount original art for portfolio presentation, photograph and display a professional slide portfolio, and write an effective resume. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 231 Printmaking I</td>
<td>0</td>
<td>6</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Prerequisites:</td>
<td>None</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corequisites:</td>
<td>None</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This course introduces printmaking: its history, development techniques, and processes. Emphasis is placed on basic applications with investigation into image source and development. Upon completion, students should be able to produce printed images utilizing a variety of methods. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 232 Printmaking II</td>
<td>0</td>
<td>6</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Prerequisites:</td>
<td>ART 231</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corequisites:</td>
<td>None</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This course includes additional methods and printmaking processes. Emphasis is placed on the printed image as related to method, source, and concept. Upon completion, students should be able to produce expressive images utilizing both traditional and innovative methods. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 240 Painting I</td>
<td>0</td>
<td>6</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Prerequisites:</td>
<td>ART 131</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corequisites:</td>
<td>None</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This course introduces the language of painting and the use of various painting materials. Emphasis is placed on the understanding and use of various painting techniques, media, and color principles. Upon completion, students should be able to demonstrate competence in the use of creative processes directed toward the development of expressive form. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement. This course may meet the SACS humanities/fine arts requirement for AGE, AAS, DIP, or CER programs.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 241 Painting II</td>
<td>0</td>
<td>6</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Prerequisites:</td>
<td>ART 240</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corequisites:</td>
<td>None</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This course provides a continuing investigation of the materials, processes, and techniques of painting. Emphasis is placed on the exploration of expressive content using a variety of creative processes. Upon completion, students should be able to demonstrate competence in the expanded use of form and variety. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement. This course may meet the SACS humanities/fine arts requirement for AGE, AAS, DIP, or CER programs.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 245 Metals I</td>
<td>0</td>
<td>6</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Prerequisites:</td>
<td>None</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corequisites:</td>
<td>None</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This course introduces basic metal design in traditional and contemporary art forms using brass, copper, and silver. Emphasis is placed on designing and fabricating jewelry, small sculptures, and utilitarian objects. Upon completion, students should be able to design and produce small art objects. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 246 Metals II</td>
<td>0</td>
<td>6</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Prerequisites:</td>
<td>ART 245</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corequisites:</td>
<td>None</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This course provides a continuation of metal design utilizing basic methods of casting and other processes. Emphasis is placed on individualized design. Upon completion, students should be able to design and produce expressive forms. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 247 Jewelry I</td>
<td>0</td>
<td>6</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Prerequisites:</td>
<td>None</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corequisites:</td>
<td>None</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This course introduces a basic understanding of the design and production of jewelry. Emphasis is placed on concepts and techniques using metals and other materials. Upon completion, students should be able to demonstrate an ability to use appropriate methods to create unique jewelry. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.
### ART 248 Jewelry II
Prerequisites: ART 247
Corequisites: None

This course is a continuation of the skills learned in ART 247. Emphasis is placed on the creation of individual designs that utilize a variety of techniques such as casting, cloisonné, and plique-a-jour. Upon completion, students should be able to create unique jewelry. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.*

### ART 250 Surface Design: Textiles
Prerequisites: None
Corequisites: None

This course introduces the basic principles and elements of art as applied to textile surfaces. Emphasis is placed on direct, top-dyed processes that utilize both synthetic and natural dyes, and techniques such as batiking, stenciling, and stamping. Upon completion, students should be able to demonstrate a basic understanding of appropriate materials and techniques as they apply to original design on a variety of textile surfaces. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.*

### ART 251 Weaving I
Prerequisites: None
Corequisites: None

This course provides a basic understanding of the design and production of constructed textiles. Emphasis is placed on traditional weaving techniques. Upon completion, students should be able to warp and dress the loom and use appropriate techniques for the creation of unique woven fabrics. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.*

### ART 252 Weaving II
Prerequisites: ART 251
Corequisites: None

This course furthers an exploration of creative design as it relates to manipulated fiber construction. Emphasis is placed on traditional and experimental methods. Upon completion, students should be able to create fiber constructions that utilize appropriate techniques for individual expressive designs. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.*

### ART 261 Photography I
Prerequisites: None
Corequisites: None

This course introduces photographic equipment, theory, and processes. Emphasis is placed on camera operation, composition, darkroom technique, and creative expression. Upon completion, students should be able to successfully expose, develop, and print a well-conceived composition. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.* This course may meet the SACS humanities/fine arts requirement for AGE, AAS, DIP, or CER programs.

### ART 262 Photography II
Prerequisites: ART 261
Corequisites: None

This course introduces the creative manipulation of alternative photographic materials and processes such as toning, hand coloring, infrared, and multiple exposure. Emphasis is placed on personal vision and modes of seeing. Upon completion, students should be able to create properly exposed images using a variety of photographic materials and processes. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.* This course may meet the SACSHumanities/fine arts requirement for AGE, AAS, DIP, or CER programs.

### ART 264 Digital Photography I
Prerequisites: None
Corequisites: None

This course introduces digital photographic equipment, theory and processes. Emphasis is placed on camera operation, composition, computer photo manipulation and creative expression. Upon completion, students should be able to successfully expose, digitally manipulate, and print a well-conceived composition. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

### ART 265 Digital Photography II
Prerequisites: ART 264
Corequisites: None

This course provides exploration of the concepts and processes of photo manipulation through complex composite images, special effects, color balancing and image/text integration. Emphasis is placed on creating a personal vision and style. Upon completion, students should be able to produce well-executed images using a variety of photographic and photo manipulative approaches. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*
ART 266 Videography I
Prerequisites: None
Corequisites: None
This course introduces various aspects of basic video production including concept development, scripting, camera operation, and post-production. Emphasis is placed on creative expression, camera handling, storyboarding, and editing. Upon completion, students should be able to demonstrate a basic understanding of video camera operation and production techniques. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement. This course may meet the SACS humanities/fine arts requirement for AGE, AAS, DIP, or CER programs.

ART 267 Videography II
Prerequisites: ART 266
Corequisites: None
This course is designed to provide a framework for the production of a long-term video project. Emphasis is placed on realization of the unique creative vision. Upon completion, students should be able to produce a thematically coherent, edited video with sound and titling. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

ART 271 Computer Art II
Prerequisites: ART 171
Corequisites: None
This course includes advanced computer imaging techniques. Emphasis is placed on creative applications of digital technology. Upon completion, students should be able to demonstrate command of computer systems and applications to express their personal vision. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement. This course may meet the SACS humanities/fine arts requirement for AGE, AAS, DIP, or CER programs.

ART 281 Sculpture I
Prerequisites: None
Corequisites: None
This course provides an exploration of the creative and technical methods of sculpture with focus on the traditional processes. Emphasis is placed on developing basic skills as they pertain to three-dimensional expression in various media. Upon completion, students should be able to show competence in variety of sculptural approaches. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement. This course may meet the SACS humanities/fine arts requirement for AGE, AAS, DIP, or CER programs.

ART 282 Sculpture II
Prerequisites: ART 281
Corequisites: None
This course builds on the visual and technical skills learned in ART 281. Emphasis is placed on developing original solutions to sculptural problems in a variety of media. Upon completion, students should be able to express individual ideas using the techniques and materials of sculpture. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

ART 283 Ceramics I
Prerequisites: None
Corequisites: None
This course provides an introduction to three-dimensional design principles using the medium of clay. Emphasis is placed on fundamentals of forming, surface design, glaze application, and firing. Upon completion, students should be able to demonstrate skills in slab and coil construction, simple wheel forms, glaze technique, and creative expression. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

ART 284 Ceramics II
Prerequisites: ART 283
Corequisites: None
This course covers advanced hand building and wheel techniques. Emphasis is placed on creative expression, surface design, sculptural quality, and glaze effect. Upon completion, students should be able to demonstrate a high level of technical competence in forming and glazing with a development of three-dimensional awareness. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

ART 285 Ceramics III
Prerequisites: ART 284
Corequisites: None
This course provides the opportunity for advanced self-determined work in sculptural and functional ceramics. Emphasis is placed on developing the technical awareness of clay bodies, slips, engobes, and firing procedures necessary to fulfill the student’s artistic goals. Upon completion, student should be able to demonstrate knowledge of materials and techniques necessary to successfully create original projects in the clay medium. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.
This course provides the opportunity for self-determined work in sculptural and functional ceramics. Emphasis is placed on developing the technical awareness of glaze materials, glaze formulation, and firing techniques necessary to fulfill the students’ artistic goals. Upon completion, students should be able to demonstrate knowledge of materials and techniques necessary to successfully create original projects in the clay medium. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

**ART 286 Ceramics IV**
Prerequisites: ART 285
Corequisites: None

This course provides the opportunity for advanced self-determined work beyond the limits of regular studio course sequences. Emphasis is placed on creative self-expression and in-depth exploration of techniques and materials. Upon completion, students should be able to create original projects specific to media, materials, and techniques. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement. This course may meet the SACS humanities/fine arts requirement for AGE, AAS, DIP, or CER programs.

**ART 288 Studio**
Prerequisites: None
Corequisites: None

This course introduces the basic principles of automated manufacturing and describes the tasks that technicians perform on the job. Topics include the history, development, and current applications of robots and automated systems including their configuration, operation, components, and controls. Upon completion, students should be able to understand the basic concepts of automation and robotic systems.

**ART 285 Intro to Automation**
Prerequisites: a. A grade of “C” or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading
b. A grade of “C” or better in MAT 060 OR successful completion of DMA 010, DMA 020, and DMA 030
c. A grade of “C” or better in MAT 070 or MAT 080 or MAT 090 or MAT 095 or successful completion of one of the following: MAT 120 or MAT 121 or MAT 161 or MAT 171 or MAT 175 or successful completion of DMA 040 and DMA 050

Corequisites: None

This course introduces multistage finishes, custom painting, and protective coatings. Topics include base coats, advanced intermediate coats, clear coats, and other related topics. Upon completion, students should be able to identify and apply specialized finishes based on accepted industry standards.

**AUB 111 Painting & Refinishing I**
Prerequisites: None
Corequisites: None

This course covers advanced painting techniques and technologies with an emphasis on identifying problems encountered by the refinishing technician. Topics include materials application, color matching, correction of refinishing problems, and other related topics. Upon completion, students should be able to perform spot, panel, and overall refinishing repairs and identify and correct refinishing problems.

**AUB 112 Painting & Refinishing II**
Prerequisites: AUB 111
Corequisites: None

This course introduces safety, tools, and the basic fundamentals of body repair. Topics include shop safety, damage analysis, tools and equipment, repair techniques, materials selection, materials usage, and other related topics. Upon completion, students should be able to identify and repair minor direct and indirect damage including removal/repairing/ replacing of body panels to accepted standards.

**AUB 114 Special Finishes**
Prerequisites: AUB 111
Corequisites: None

This course introduces the proper procedures for using automotive refinishing equipment and materials in surface preparation and application. Topics include federal, state, and local regulations, personal safety, refinishing equipment and materials, surface preparation, masking, application techniques, and other related topics. Upon completion, students should be able to identify and use proper equipment and materials in refinishing following accepted industry standards.

**AUB 112 Non-Structural Damage I**
Prerequisites: None
Corequisites: None

This course covers safety, tools, and advanced body repair. Topics include shop safety, damage analysis, tools and equipment, advanced repair techniques, materials selection, materials usage, movable glass, and other related topics. Upon completion, students should be able to identify and repair or replace direct and indirect damage to accepted standards including movable glass and hardware.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit</th>
<th>Prerequisites</th>
<th>Corequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUB 131</td>
<td>Structural Damage I</td>
<td>2 4 0 4</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>AUB 136</td>
<td>Plastics &amp; Adhesives</td>
<td>1 4 0 3</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>AUB 141</td>
<td>Mech &amp; Elec Components I</td>
<td>2 2 0 3</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>AUB 162</td>
<td>Autobody Estimating</td>
<td>1 2 0 2</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>AUC 114</td>
<td>Custom Fiberglass Skills</td>
<td>2 4 0 4</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>AUT 116</td>
<td>Engine Repair</td>
<td>2 3 0 3</td>
<td>AUT 110</td>
<td>None</td>
</tr>
<tr>
<td>AUT 116A</td>
<td>Engine Repair Lab</td>
<td>0 3 0 1</td>
<td>None</td>
<td>AUT 116</td>
</tr>
<tr>
<td>AUT 123</td>
<td>Powertrain Diagnosis and Service</td>
<td>1 3 0 2</td>
<td>AUT 110</td>
<td>None</td>
</tr>
<tr>
<td>AUT 141</td>
<td>Suspension &amp; Steering Sys</td>
<td>2 3 0 3</td>
<td>AUT 110</td>
<td>None</td>
</tr>
</tbody>
</table>

This course introduces safety, equipment, structural damage analysis, and damage repairs. Topics include shop safety, design and construction, structural analysis and measurement, equipment, structural glass, repair techniques, and other related topics. Upon completion, students should be able to analyze and perform repairs to a vehicle which has received light/moderate structural damage.

This course covers safety, plastic and adhesive identification, and the various repair methods of automotive plastic components. Topics include safety, identification, preparation, material selection, and the various repair procedures including refinishing. Upon completion, students should be able to identify, remove, repair, and/or replace automotive plastic components in accordance with industry standards.

This course covers the basic principles of automotive mechanical and electrical components. Topics include personal and environmental safety and suspension and steering, electrical, brake, heating and air-conditioning, cooling, drive train, and restraint systems. Upon completion, students should be able to identify system components and perform basic system diagnostic checks and/or repairs according to industry standards.

This course provides a comprehensive study of autobody estimating. Topics include collision damage analysis, industry regulations, flat-rate and estimated time, and collision estimating manuals. Upon completion, students should be able to prepare and interpret a damage report.

This course will provide instruction in non-metallic customizing and repair techniques. Emphasis will be placed on diagnosis and repair of cracks, proper use of bonding agents, fiberglass body parts removal/replacement, and custom fabrication techniques using fiberglass materials. Upon completion, students should be able to identify types of fiberglass and demonstrate the ability to properly prepare, apply, and finish fiberglass components.

This course covers the theory, construction, inspection, diagnosis, and repair of internal combustion engines and related systems. Topics include fundamental operating principles of engines and diagnosis, inspection, adjustment, and repair of automotive engines using appropriate service information. Upon completion, students should be able to perform basic diagnosis, measurement and repair of automotive engines using appropriate tools, equipment, procedures, and service information.

This course is an optional lab to be used as an alternative to co-op placement in meeting the NATEF standards for total hours. Topics include diagnosis, inspection, adjustment, and repair of automotive engines using appropriate service information. Upon completion, students should be able to perform basic diagnosis, measurement and repair of automotive engines using appropriate tools, equipment, procedures, and service information.

This course covers the diagnosis, repair and service of the vehicle powertrain and related systems. Topics include fundamental operating principles of engines and transmissions and use of proper service procedures for diagnosis, service and R & R of major components. Upon completion students should be able to perform basic service and diagnosis of the powertrain and related systems, the students should also be able to perform in vehicle repairs and R & R components.

This course covers principles of operation, types, and diagnosis/repair of suspension and steering systems to include steering geometry. Topics include manual and power steering systems and standard and electronically controlled suspension and steering systems. Upon completion, students should be able to service and repair steering and suspension components, check and adjust alignment angles, repair tires, and balance wheels.
<table>
<thead>
<tr>
<th>Course</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUT 141A Suspension &amp; Steering Lab</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Prerequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corequisites: AUT 141</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This course is an optional lab to be used as an alternative to co-op placement in meeting the NATEF standards for total hours. Topics include manual and power steering systems and standard and electronically controlled suspension and steering systems. Upon completion, students should be able to service and repair steering and suspension components, check and adjust alignment angles, repair tires, and balance wheels.

<table>
<thead>
<tr>
<th>Course</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUT 151 Brake Systems</td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Prerequisites: Proficiency in Reading - A grade of “C” or better in ENG 085 or RED 080 OR minimum Accuplacer score of 57 on Reading</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corequisites: AUT 151A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This course covers principles of operation and types, diagnosis, service, and repair of brake systems. Topics include drum and disc brakes involving hydraulic, vacuum boost, hydra-boost, electrically powered boost, and anti-lock and parking brake systems. Upon completion, students should be able to diagnose, service, and repair various automotive braking systems.

<table>
<thead>
<tr>
<th>Course</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUT 151A Brakes Systems Lab</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Prerequisites: Proficiency in Reading - A grade of “C” or better in ENG 085 or RED 080 OR minimum Accuplacer score of 57 on Reading</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corequisites: AUT 151</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This course is an optional lab to be used as an alternative to co-op placement in meeting the NATEF standards for total hours. Topics include drum and disc brakes involving hydraulic, vacuum-boost, hydra-boost, electrically powered boost, and anti-lock and parking brake systems and emerging brake systems technologies. Upon completion, students should be able to diagnose, service, and repair various automotive braking systems.

<table>
<thead>
<tr>
<th>Course</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUT 163A Adv Auto Electricity Lab</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Prerequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corequisites: AUT 163</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This course is an optional lab to be used as an alternative to co-op placement in meeting the NATEF standards for total hours. Topics include networking and module communication, circuit construction, wiring diagrams, circuit testing, troubleshooting and emerging electrical/electronic systems technologies. Upon completion, students should be able to properly use wiring diagrams, diagnose, test, and repair wiring, lighting, gauges, accessories, modules, and electronic concerns.

<table>
<thead>
<tr>
<th>Course</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUT 181 Engine Performance I Lab</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Prerequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corequisites: AUT 181</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This course covers the introduction, theory of operation, and basic diagnostic procedures required to restore engine performance to today’s vehicles equipped with complex engine control systems. Topics include an overview of engine operation, ignition components and systems, fuel delivery, injection components and systems and emission control devices. Upon completion students should be able to describe operation of and diagnose/repair basic ignition, fuel and emission related driveability problems using appropriate test equipment and service information.

<table>
<thead>
<tr>
<th>Course</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUT 181A Engine Performance I Lab</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Prerequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corequisites: AUT 181</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This course is an optional lab to be used as an alternative to co-op placement in meeting the NATEF standards for total hours. Topics include overviews of engine operation, ignition components and systems, fuel delivery, injection components and systems and emission control devices and emerging engine performance technologies. Upon completion, students should be able to describe operation and diagnose/repair basic ignition, fuel and emission related driveability problems using appropriate test equipment/service information.

<table>
<thead>
<tr>
<th>Course</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUT 212 Auto Shop Management</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Prerequisites: AUT 110</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This course covers the principles of management essential to decision-making, communication, authority, and leadership. Topics include shop supervision, shop organization, customer relations, cost effectiveness and work place ethics. Upon completion, students should be able to describe basic automotive shop operation from a management standpoint.
**AUT 213 Automotive Servicing II**

Prerequisites: None  
Corequisites: None

This course is a lab used as an alternative to co-op placement. Emphasis is placed on shop operations, troubleshooting, testing, adjusting, repairing, and replacing components using appropriate test equipment and service information. Upon completion, students should be able to perform a variety of automotive repairs using proper service procedures and to operate appropriate equipment.

**AUT 221 Auto Transm/Transaxles**

Prerequisites: AUT 110
Corequisites: None

This course covers operation, diagnosis, service, and repair of automatic transmissions/transaxles. Topics include hydraulic, pneumatic, mechanical, and electrical/electronic operation of automatic drive trains and the use of appropriate service tools and equipment. Upon completion, students should be able to explain operational theory, diagnose and repair automatic drive trains.

**AUT 221A Auto Transm/Transaxl Lab**

Prerequisites: None  
Corequisites: AUT 221

This course is an optional lab to be used as an alternative to co-op placement in meeting the NATEF standards for total hours. Topics include hydraulic, pneumatic, mechanical, and electrical/electronic operation of automatic drive trains and the use of appropriate service tools and equipment. Upon completion, students should be able to diagnose and repair automatic drive trains.

**AUT 231 Manual Transmission/Transaxles and Drivetrains**

Prerequisites: AUT110
Corequisites: None

This course covers the operation, diagnosis, and repair of manual transmissions/transaxles, clutches, drive shafts, axles, and final drives. Topics include theory of torque, power flow, and manual drive train servicing and repair using appropriate service information, tools, and equipment. Upon completion, students should be able to explain operational theory, diagnose and repair manual drive trains.

**AUT 231A Man Trans/Ax/Dtrain Lab**

Prerequisites: None  
Corequisites: AUT 231

This course is an optional lab for the program that needs to meet NATEF hour standards but does not have a co-op component in the program. Topics include manual drive train diagnosis, service and repair using appropriate service information, tools, and equipment. Upon completion, students should be able to diagnose and repair manual drive trains.

**AUT 281 Adv Engine Performance**

Prerequisites: AUT 181 or AUT 183
Corequisites: None

This course utilizes service information and specialized test equipment to diagnose and repair power train control systems. Topics include computerized ignition, fuel and emission systems, related diagnostic tools and equipment, data communication networks, and service information. Upon completion, students should be able to perform diagnosis and repair.

**BAF 110 Principles of Banking**

Prerequisites: None  
Corequisites: None

This course covers the fundamentals of bank functions in a descriptive fashion. Topics include banks and the monetary system, the relationship of banks to depositors, the payment functions, bank loans and accounting, regulations, and examinations. Upon completion, students should be able to demonstrate an understanding of the business of banking from a broad perspective.

**BAF 111 Teller Training**

Prerequisites: None  
Corequisites: None

This course provides an overview of banking teller operations, bank security, and customer relations in preparation for work as a bank teller. Topics include bank profitability, cash and cash handling, checks and other transactions, balancing and setting, and security threats and their detection. Upon completion, students should be able to discuss the components of teller performance and perform effectively as a teller after minimal on-the-job training.

**BAF 232 Consumer Lending**

Prerequisites: None  
Corequisites: None

This course details the many types of credit arrangements in which a finance charge is paid for the privilege of repaying debt in delayed payments. Topics include consumer credit policy, the loan process, servicing and collecting loans, consumer compliance, and evaluating credit risks. Upon completion, students should be able to identify collection policies and procedures, explain principles of credit evaluation, define open-end credit, and describe indirect lending.

**BIO 106 Intro to Anat/Phys/Micro**

Prerequisites: Proficiency in Reading - A grade of “C” or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading
Corequisites: None

This course covers the fundamental and principal concepts of human anatomy and physiology and microbiology. Topics
### COURSE DESCRIPTIONS

<table>
<thead>
<tr>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 110 Principles of Biology</td>
<td>3</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td><strong>Prerequisites:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Proficiency in Reading - A grade of “C” or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Corequisites:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- None</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This course provides a survey of fundamental biological principles for non-science majors. Emphasis is placed on basic chemistry, cell biology, metabolism, genetics, taxonomy, evolution, ecology, diversity, and other related topics. Upon completion, students should be able to demonstrate increased knowledge and better understanding of biology as it applies to everyday life. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics. This course may meet the SACS natural science requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.

| BIO 111 General Biology I | 3 | 0 | 4 |
| **Prerequisites:** | | | |
| - Proficiency in Reading - A grade of “C” or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading | | | |
| **Corequisites:** | | | |
| - None | | | |

This course introduces the principles and concepts of biology. Emphasis is placed on basic biological chemistry, cell structure and function, metabolism and energy transformation, genetics, evolution, classification, and other related topics. Upon completion, students should be able to demonstrate understanding of life at the molecular and cellular levels. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics. This course may meet the SACS natural science requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.

| BIO 112 General Biology II | 3 | 0 | 4 |
| **Prerequisites:** | | | |
| - BIO 111 | | | |
| **Corequisites:** | | | |
| - None | | | |

This course is a continuation of BIO 111. Emphasis is placed on organisms, biodiversity, plant and animal systems, ecology, and other related topics. Upon completion, students should be able to demonstrate comprehension of life at the organismal and ecological levels. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics. This course may meet the SACS natural science requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.

| BIO 120 Introductory Botany | 3 | 3 | 0 | 4 |
| **Prerequisites:** | | | |
| - BIO 110 OR BIO 111 | | | |
| **Corequisites:** | | | |
| - None | | | |

This course provides an Introduction to the classification, relationships, structure, and function of plants. Topics include reproduction and development of seed and non-seed plants, levels of organization, form and function of systems, and a survey of major taxa. Upon completion, students should be able to demonstrate comprehension of plant form and function, including selected taxa of both seed and non-seed plants. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics. This course may meet the SACS natural science requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.

| BIO 130 Introductory Zoology | 3 | 3 | 0 | 4 |
| **Prerequisites:** | | | |
| - BIO 110 or BIO 111 | | | |
| **Corequisites:** | | | |
| - None | | | |

This course provides an introduction to the classification, relationships, structure, and function of major animal phyla. Emphasis is placed on levels of organization, reproduction and development, comparative systems, and a survey of selected phyla. Upon completion, students should be able to demonstrate comprehension of animal form and function including comparative systems of selected groups. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics. This course is also available through the Virtual Learning Community (VLC).

| BIO 140 Environmental Biology | 3 | 0 | 0 | 3 |
| **Prerequisites:** | | | |
| - Proficiency in Reading - A grade of “C” or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading | | | |
| **Corequisites:** | | | |
| - BIO 140A | | | |

This course introduces environmental processes and the influence of human activities upon them. Topics include ecological concepts, population growth, natural resources, and focus on current environmental problems from scientific, social, political, and economic perspectives. Upon completion, students should be able to demonstrate an understanding of environmental interrelationships and of contemporary environmental issues. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics. This course may meet the SACS natural science requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.
This course provides a laboratory component to complement BIO 140. Emphasis is placed on laboratory and field experience. Upon completion, students should be able to demonstrate a practical understanding of environmental interrelationships and of contemporary environmental issues. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics. This course may meet the SACS natural science requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.

BIO 143 Field Biology Minicourse
Prerequisites: Proficiency in Reading - A grade of “C” or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading
Corequisites: None

This course introduces the biological and physical components of a field environment. Emphasis is placed on a local field environment with extended field trips to other areas. Upon completion, students should be able to demonstrate an understanding of the biological and physical components of the specific biological environment. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

BIO 150 Genetics in Human Affairs
Prerequisites: BIO 110 or BIO 111
Corequisites: None

This course describes the importance of genetics in everyday life. Topics include the role of genetics in human development, birth defects, cancer and chemical exposure, and current issues including genetic engineering and fertilization methods. Upon completion, students should be able to understand the relationship of genetics to society today and its possible influence on our future. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

BIO 163 Basic Anat & Physiology
Prerequisites: Proficiency in Reading - A grade of “C” or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading
Corequisites: None

This course provides a basic study of the structure and function of the human body. Topics include a basic study of the body systems as well as an introduction to homeostasis, cells, tissues, nutrition, acid-base balance, and electrolytes. Upon completion, students should be able to demonstrate a basic understanding of the fundamental principles of anatomy and physiology and their interrelationships. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

BIO 168 Anatomy and Physiology
Prerequisites: Proficiency in Reading - A grade of “C” or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading
Corequisites: None

This course provides a comprehensive study of the anatomy and physiology of the human body. Topics include body organization, homeostasis, cytology, histology, and the integumentary, skeletal, muscular, nervous, special senses, and endocrine systems. Upon completion, students should be able to demonstrate an in-depth understanding of principles of anatomy and physiology and their interrelationships. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement. This course may meet the SACS natural science requirement for AGE, AAS, DIP, or CER programs.

BIO 169 Anatomy and Physiology II
Prerequisites: BIO 168
Corequisites: None

This course provides a continuation of the comprehensive study of the anatomy and physiology of the human body. Topics include the endocrine, cardiovascular, lymphatic, respiratory, digestive, urinary, and reproductive systems as well as metabolism, nutrition, acid-base balance, and fluid and electrolyte balance. Upon completion, students should be able to demonstrate an in-depth understanding of principles of anatomy and physiology and their interrelationships. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

BIO 173 Microbes in World Affairs
Prerequisites: BIO 110 or BIO 111
Corequisites: None

This course provides an integrated and comprehensive study of the microbial world and its influence on global events and human affairs. Topics include plant and animal diseases caused by viral, bacterial, and fungal pathogens and their impacts on history, industrial microbiology, biotechnology, and microbial ecology. Upon completion, students should be able to demonstrate an understanding of the importance of microbes in human and world affairs. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement. This course may meet the SACS natural science requirement for AGE, AAS, DIP, or degree programs.
This course covers principles of microbiology with emphasis on microorganisms and human disease. Topics include an overview of microbiology and aspects of medical microbiology, identification and control of pathogens, disease transmission, host resistance, and immunity. Upon completion, students should be able to demonstrate knowledge of microorganisms and the disease process as well as aseptic and sterile techniques. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement. This course may meet the SACS natural science requirement for AGE, AAS, DIP, or CER degree programs.

**BIO 250 Genetics**
Prerequisites: BIO-112
Corequisites: None

This course covers principles of prokaryotic and eukaryotic cell genetics. Emphasis is placed on the molecular basis of heredity, chromosome structure, patterns of Mendelian and non-Mendelian inheritance, and biotechnological applications. Upon completion, students should be able to recognize and describe genetic phenomena and demonstrate knowledge of important genetic principles. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

**BMS 117 Marine Spray Finishing**
Prerequisites: BTB 115
Corequisites: None

This course covers the fundamental techniques used in the preparation and application of marine finishes, using modern coatings and spray equipment common to the marine manufacturing and service industry. Emphasis is placed on safety, product data sheets, mixing ratios, proper spray technique, troubleshooting finishes and equipment. Upon completion, students should be able to correctly operate tools to efficiently prepare surfaces, apply fairing compounds, primers and finish coats to industry standards.

**BPR 111 Print Reading**
Prerequisites: None
Corequisites: None

This course introduces the basic principles of blueprint reading. Topics include line types, orthographic projections, dimensioning methods, and notes. Upon completion, students should be able to interpret basic blueprints and visualize the features of a part or system.
build, fit out, and finish a small boat using modern fabrics, core materials, and methods of construction.

**BTB 103 Yacht Joiner Practices I**  
Prerequisites: BTB 101  
Corequisites: BTB 102

This course introduces the fundamental skills and attention to detail necessary to fine yacht joinery. Emphasis is placed on fitting, mortise/tenon, and dowel joints; fitting dadoes in grooves; and building a project to close tolerances from a blueprint. Upon completion, students should be able to build a cabinet carcass with face frame, round corner posts, laminate surfaces, and a dove-tailed drawer.

**BTB 104 Yacht Joiner Practices II**  
Prerequisites: BTB 103  
Corequisites: BTB 105

This course is an extension of BTB 103 and emphasizes finishing cabinets and rough-in of yacht interiors. Topics include manufacturing and fitting moldings, door construction methods, bright work finishing, and bulkhead and cabin sole fitting and installation. Upon completion, students should be able to build raised panel doors and moldings, apply modern finishes, and rough in bulkheads, soles, and yacht furniture.

**BTB 105 Yacht Repair/Renovation**  
Prerequisites: BTB 102  
Corequisites: None

This course introduces repair/renovation principles and methods for wood and fiberglass boats. Emphasis is placed on surveying boats for needed repairs, planning repairs, and estimating costs in tools, materials, and techniques used in repair and renovation. Upon completion, students should be able to plan and execute repairs in wood and fiberglass boats (structural and cosmetic) and execute marine refinishing techniques.

**BTB 106 Engine Install/Systems**  
Prerequisites: None  
Corequisites: None

This course familiarizes students with marine engines and related systems, installation, troubleshooting and minor repairs. Topics covered are drivetrains and cooling, fuel, exhaust, and electrical systems for a typical inboard engine. Upon completion, students should be able to install, troubleshoot, and perform minor repairs on marine engines and related systems.

**BTB 107 Boat Electrical Systems**  
Prerequisites: None  
Corequisites: None

This course teaches students the skills necessary to wire 12-volt direct current and 120-volt alternating current electrical systems found on modern boats. Topics covered are electrical system and wiring sizing, batteries, wire harnesses, distribution panels, electronic component installation, and electrical system troubleshooting. Upon completion, students should be able to install a complete electrical system on a mock-up yacht.

**BTB 108 Boat Plumbing Systems**  
Prerequisites: None  
Corequisites: None

This course is an introduction to the plumbing systems used on modern yachts. Topics will include pressurized hot water systems, water closets, sanitation systems, thru hulls, and sea cocks. Upon completion, students should be able to install heads, showers, and drains found on yachts.

**BTB 109 Yacht Rigging**  
Prerequisites: None  
Corequisites: None

This course provides an introduction of Marlinspike Seamanship, rigging and tuning masts, and commissioning yachts. Topics covered are knot tying, whipping lines, standing and running rigging on spars, maintaining winches, anchoring systems and care and rigging of sails. Upon completion, students should be able to efficiently complete yacht rigging competencies to industry standards. This course is approved only at the certificate and diploma level.

**BTB 110 Fiberglass Boat Bldg I**  
Prerequisites: None  
Corequisites: None

This course introduces fiberglass boat building using polyester and vinylester resins in conjunction with single skin and composite covered construction. Topics covered are the types and uses of resins, fabrics, and cores, and chopper and gel coat guns. Upon completion, students should be able to build a composite core boat and a single skin boat.

**BTB 111 Fiberglass Boat Bldg II**  
Prerequisites: BTB 110  
Corequisites: None

This course covers the skills necessary to build fiberglass molds for hulls and decks. Topics include the proper use of tooling gel coats, proper lay-ups, heat problems during lay-ups, reinforcing techniques and resin infusion. Upon completion, students should be able to build a female mold, a “quickie” female deck mold and various “quickie” male molds for custom parts.

**BTB 112 Fiberglass Boat Repairs**  
Prerequisites: None  
Corequisites: None

This course covers many aspects of fiberglass hull and deck repair. Topics include performing repairs on single skin hulls, composite hulls, decks and gel coats. Upon completion, students should be able to demonstrate skills necessary to repair damaged laminates to boat industry standards.
### COURSE DESCRIPTIONS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit</th>
<th>Clinical</th>
<th>Class</th>
<th>Lab</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 115</td>
<td>Business Law I</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Prerequisites:</td>
<td>Proficiency in Reading - A grade of “C” or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corequisites:</td>
<td>None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>This course introduces the ethics and legal framework of business. Emphasis is placed on contracts, negotiable instruments, Uniform Commercial Code, and the working of the court systems. Upon completion, students should be able to apply ethical issues and laws covered to selected business decision-making situations. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| BUS 225     | Business Finance                    | 2      | 2        | 0     | 3     |
| Prerequisites: | A grade of “C” or better in MAT 060 or successful completion of DMA 010, DMA 020, and DMA 030. |
| Corequisites: | None                                |
| This course provides an overview of business financial management. Emphasis is placed on financial statement analysis, time value of money, management of cash flow, risk and return, and sources of financing. Upon completion, students should be able to interpret and apply the principles of financial management. |

| BUS 230     | Small Business Management           | 3      | 0        | 0     | 3     |
| Prerequisites: | A grade of “C” or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading |
| Corequisites: | None                                |
| This course introduces the challenges of entrepreneurship including the startup and operation of a small business. Topics include market research techniques, feasibility studies, site analysis, financing alternatives, and managerial decision making. Upon completion, students should be able to develop a small business plan. |

| BUS 239     | Bus Applications Seminar            | 1      | 2        | 0     | 2     |
| Prerequisites: | ACC 120, BUS 115, BUS 137, MKT 120 and ECO 151 |
| Corequisites: | None                                |
| This course is designed as a capstone course for Business Administration majors. Emphasis is placed on decision making in the areas of management, marketing, production, purchasing, and finance. Upon completion, students should be able to apply the techniques, processes, and vital professional skills needed in the work place. |

| BUS 240     | Business Ethics                     | 3      | 0        | 0     | 3     |
| Corequisites: | None                                |
| This course introduces contemporary and controversial ethical issues that face the business community. Topics include moral reasoning, moral dilemmas, law and morality, equity, justice and fairness, ethical standards, and moral development. Upon completion, students should be able to demonstrate an understanding of their moral responsibilities and obligations as members of the workforce and society. |

<p>| BUS 260     | Business Communication              | 3      | 0        | 0     | 3     |
| Prerequisites: | ENG 111 and CIS 110 or CIS 111 |
| Corequisites: | None                                |
| This course is designed to develop skills in writing business communications. Emphasis is placed on business reports, correspondence, and professional presentations. Upon completion, students should be able to communicate effectively in the work place. |</p>
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Corequisites</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 280 REAL Small Business</td>
<td>This course introduces hands-on techniques and procedures for planning and opening a small business, including the personal qualities needed for entrepreneurship. Emphasis is placed on market research, finance, time management, and day-to-day activities of owning/operating a small business. Upon completion, students should be able to write and implement a viable business plan and seek funding.</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>CAR 111 Carpentry I</td>
<td>This course introduces the theory and construction methods associated with the building industry, including framing, materials, tools, and equipment. Topics include safety, hand/power tool use, site preparation, measurement and layout, footings and foundations, construction framing, and other related topics. Upon completion, students should be able to safely lay out and perform basic framing skills with supervision.</td>
<td>3</td>
<td>15</td>
<td>0</td>
<td>8</td>
<td>None</td>
<td>CAR 110</td>
</tr>
<tr>
<td>CAR 112 Carpentry II</td>
<td>This course covers the advanced theory and construction methods associated with the building industry including framing and exterior finishes. Topics include safety, hand/power tool use, measurement and layout, construction framing, exterior trim and finish, and other related topics. Upon completion, students should be able to safely frame and apply exterior finishes to a residential building with supervision.</td>
<td>3</td>
<td>15</td>
<td>0</td>
<td>8</td>
<td>None</td>
<td>CAR 111</td>
</tr>
<tr>
<td>CAR 113 Carpentry III</td>
<td>This course covers interior trim and finishes. Topics include safety, hand/power tool use, measurement and layout, specialty framing, interior trim and finishes, cabinetry, and other related topics. Upon completion, students should be able to safely install various interior trim and finishes in a residential building with supervision.</td>
<td>3</td>
<td>9</td>
<td>0</td>
<td>6</td>
<td>None</td>
<td>CAR 111</td>
</tr>
<tr>
<td>CAR 114 Residential Bldg Codes</td>
<td>This course covers building codes and the requirements of state and local construction regulations. Emphasis is placed on the minimum requirements of the North Carolina building codes related to residential structures. Upon completion, students should be able to determine if a structure is in compliance with North Carolina building codes.</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>CET 111 Computer Upgrade/Repair I</td>
<td>This course covers repairing, servicing, and upgrading computers and peripherals in preparation for industry certification. Topics include CPU/memory/bus identification, disk subsystems, hardware/software installation/configuration, common device drivers, data recovery, system maintenance, and other related topics. Upon completion, students should be able to safely repair and/or upgrade computer systems to perform within specifications.</td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>CET 125 Voice and Data Cabling</td>
<td>This course provides an understanding of the industry and its worldwide standards, types of media and cabling, physical and logical networks, including signal transmission. Topics include network design documentation, part list set-up, pulling and mounting cable, cable management, wiring closets, patch panel installation and termination including cable testing. Upon completion, students should be able to understand documentation, design, installation and safety issues associated with voice and data cabling.</td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>CET 130 Operating System Prin</td>
<td>This course introduces the concepts, usage, internals and applications of operating systems used in engineering technology. Topics include resource management, shells, schedulers, file systems, networking, software considerations and other related topics. Upon completion, students should be able to choose and evaluate an operating system for engineering applications.</td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>CET 150 Computer Forensics I</td>
<td>This course is an introduction to computer forensic concepts, with emphasis on computer forensic methods and best practices. Topics include computer system analysis, physical and logical storage methods for different types of media, tools to recover and analyze data from storage media, system security. Upon completion, students should be able to use diagnostic and investigative techniques to identify and retrieve data from various types of computer media.</td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td>None</td>
<td>CET 211 or CET 130</td>
</tr>
<tr>
<td>CET 172 Internet Technologies</td>
<td>The goal of this course is to provide an introduction to Internet technologies and prepare students to pass vendor independent internet technology certification exams. Topics cover using</td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>
different Internet protocols, programming on the Internet, the OSI model, the Internet infrastructure, security, and e-commerce. Upon completion, students should be prepared to take vendor independent Internet technology certification exams.

**CET 211 Computer Upgrade/Repair II**  
**Prerequisites:** None  
**Corequisites:** CIS 110  

This course covers concepts of repair service, and upgrade of computers and peripherals in preparation for industry certification. Topics may include resolving resource conflicts and system bus specifications, configuration and troubleshooting peripherals, operating system configuration and optimization, and other related topics. Upon completion, students should be able to identify and resolve system conflicts and optimize system performance.

**CET 240 Network Security**  
**Prerequisites:** CET 172  
**Corequisites:** None  

This course is to provide a comprehensive study of network and computer security. Topics include security principles, establishing baselines, policies, network hardening, legal issues, disaster recovery, attack and defense techniques and technologies. Upon completion, students should be able to identify, establish, and maintain an appropriate security model on a computer network.

**CET 245 Internet Servers**  
**Prerequisites:** CET 172 and CET 130  
**Corequisites:** None  

This course covers the setup and management of Internet server hardware and software. Topics include TCP/IP, FTP, SMTP, and HTTP; installation and configuration of server software for web, FTP, DNS, mail, and other services. Upon completion, students should be able to set up and maintain Internet servers.

**CET 250 Computer Forensics II**  
**Prerequisites:** CET 150  
**Corequisites:** None  

This course is a study in computer forensic practices with emphasis placed on methods used for prevention, detection, and apprehension of perpetrators of cyber-criminal activity. Topics include the roles of Chief Security Officers in the securing of system breaches, vulnerabilities, network and server security issues, OS and application security risks. Upon completion students should be able to identify and collect evidence to prove unauthorized and inappropriate access on computer systems and networks.

**CHM 130 Gen, Org, & Biochemistry**  
**Prerequisites:** Proficiency in Reading  
1. A grade of “C” or better in ENG 095 or RED 090 or minimum Accuplacer score of 80 on Reading  
2. A grade of “C” or better in MAT 060 or successful completion of DMA 010, DMA 020, and DMA 030  
**Corequisites:** None  

This course provides a survey of basic facts and principles of general, organic, and biochemistry. Topics include measurement, molecular structure, nuclear chemistry, solutions, acid-base chemistry, gas laws, and the structure, properties, and reactions of major organic and biological groups. Upon completion, students should be able to demonstrate an understanding of fundamental chemical concepts. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

**CHM 131 Introduction to Chemistry**  
**Prerequisites:** Proficiency in Reading  
1. A grade of “C” or better in ENG 095 or RED 090 or minimum Accuplacer score of 80 on Reading  
2. A grade of “C” or better in MAT 060 or successful completion of DMA 010, DMA 020, and DMA 030  
3. A grade of “C” or better in MAT 070 or MAT 080 or MAT 090 or MAT 095 or successful completion of one of the following: MAT 120 or MAT 121 or MAT 161 or MAT 171 or MAT 175 or successful completion of DMA 040, and DMA 050  
**Corequisites:** CHM 131A  

This course introduces the fundamental concepts of inorganic chemistry. Topics include measurement, matter and energy, atomic and molecular structure, nuclear chemistry, stoichiometry, chemical formulas and reactions, chemical bonding, gas laws, solutions, and acids and bases. Upon completion, students should be able to demonstrate a basic understanding of chemistry as it applies to other fields. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics. This course may meet the SACS natural science requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.
<table>
<thead>
<tr>
<th>Course</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHM 131A Intro to Chemistry Lab</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Prerequisites:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proficiency in Reading</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. A grade of “C” or better in</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENG 095 or RED 090 or minimum</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accuplacer score of 80 on</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reading</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. A grade of “C” or better in</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAT 060 or successful</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>completion of DMA 010, DMA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>020, and DMA 030</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. A grade of “C” or better in</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAT 070 or MAT 090 or MAT</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>095 or successful completion</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>of one of the following: MAT</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>120 or MAT 121 or MAT 161 or</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAT 171 or MAT 175 on</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elementary Algebra or</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>successful completion of DMA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>040, and DMA 050</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corequisites:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHM 131</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This course is a laboratory to accompany CHM 131. Emphasis is placed on laboratory experiences that enhance materials presented in CHM 131. Upon completion, students should be able to utilize basic laboratory procedures and apply them to chemical principles presented in CHM 131. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics. This course may meet the SACS natural science requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.

<table>
<thead>
<tr>
<th>Course</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHM 151 General Chemistry I</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Prerequisites:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proficiency in Reading</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. A grade of “C” or better in</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENG 095 or RED 090 OR minimum</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accuplacer score of 80 on</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reading</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. A grade of “C” or better in</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAT 060 or successful</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>completion of DMA 010, DMA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>020, and DMA 030</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. A grade of “C” or better in</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAT 080, MAT 090, or MAT 095</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>or successful completion MAT</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>161, MAT 171, or MAT 175</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>on Elementary Algebra or</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>successful completion of DMA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>040, DMA 050, DMA 060, DMA 070,</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DMA 080</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corequisites:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This course covers fundamental principles and laws of chemistry. Topics include measurement, atomic and molecular structure, periodicity, chemical reactions, chemical bonding, stoichiometry, thermochemistry, gas laws, and solutions. Upon completion, students should be able to demonstrate an understanding of fundamental chemical laws and concepts as needed in CHM 152. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics. This course may meet the SACS natural science requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.

<table>
<thead>
<tr>
<th>Course</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHM 152 General Chemistry II</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Prerequisites:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHM 151</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corequisites:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This course provides a continuation of the study of the fundamental principles and laws of chemistry. Topics include kinetics, equilibrium, ionic and redox equations, acid-base theory, electrochemistry, thermodynamics, introduction to nuclear and organic chemistry, and complex ions. Upon completion, students should be able to demonstrate an understanding of chemical concepts as needed to pursue further study in chemistry and related professional fields. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics. This course may meet the SACS natural science requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.

<table>
<thead>
<tr>
<th>Course</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHM 251 Organic Chemistry I</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Prerequisites:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHM 152</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corequisites:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This course provides a systematic study of the theories, principles, and techniques of organic chemistry. Topics include nomenclature, structure, properties, reactions, and mechanisms of hydrocarbons, alkyl halides, alcohols, and ethers; further topics include isomerization, stereochemistry, and spectroscopy. Upon completion, students should be able to demonstrate an understanding of organic concepts as needed to pursue further study in chemistry and related professional fields. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

<table>
<thead>
<tr>
<th>Course</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHM 252 Organic Chemistry II</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Prerequisites:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHM 251</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corequisites:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This course provides continuation of the systematic study of the theories, principles, and techniques of organic chemistry. Topics include nomenclature, structure, properties, reactions, and mechanisms of aromatics, aldehydes, ketones, carboxylic acids and derivatives, amines, and heterocyclics; multi-step synthesis will be emphasized. Upon completion, students should be able to demonstrate an understanding of organic concepts as needed to pursue further study in chemistry and related professional fields. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.
### COURSE DESCRIPTIONS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Notes</th>
</tr>
</thead>
</table>
| **CIS 110 Introduction to Computers** | 2 2 0 3 | 2 | 2 | 0 | 3 | Prerequisites: Efficiency in Reading  
   a. A grade of “C” or better in ENG 095 or RED 090 or minimum Accuplacer score of 80 on Reading  
   b. A grade of “C” or better in MAT 060 or successful completion of DMA 010, DMA 020, and DMA 030  
   c. A grade of “C” or better in MAT 070 or MAT 080 or MAT 090 or MAT 095 or successful completion of one of the following: MAT 120 or MAT 121 or MAT 161 or MAT 171 or MAT 175 or successful completion of DMA 040, and DMA 050  
Corequisites: None  
This course provides an introduction to computers and computing. Topics include the impact of computers on society, ethical issues, and hardware/software applications, including spreadsheets, databases, word processors, graphics, the Internet, and operating systems. Upon completion, students should be able to demonstrate an understanding of the role and function of computers and use the computer to solve problems. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics. This course may meet the second SACS mathematics requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs. |
| **CIS 111 Basic PC Literacy** | 1 2 0 2 | 1 | 2 | 0 | 2 | Prerequisites: None  
Corequisites: None  
This course provides a brief overview of computer concepts. Emphasis is placed on the use of personal computers and software applications for personal and workplace use. Upon completion, students should be able to demonstrate basic personal computer skills. |
| **CIS 115 Intro to Prog & Logic** | 2 3 0 3 | 2 | 3 | 0 | 3 | Prerequisites: a. CIS 110  
   b. A grade of “C” or better in MAT 060 or successful completion of DMA 010, DMA 020, and DMA 030  
   c. A grade of “C” or better in MAT 070, MAT 080, MAT 090, MAT 095 or successful completion of one of the following: MAT 120, MAT 121, MAT 161, MAT 171, or MAT 175 or successful completion of DMA 040  
Corequisites: None  
This course introduces computer programming and problem solving in a structured program logic environment. Topics include language syntax, data types, program organization, problem solving methods, algorithm design, and logic control structures. Upon completion, students should be able to manage files with operating system commands, use top-down algorithm design, and implement algorithmic solutions in a programming language. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics. This course may meet the second SACS mathematics requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs. |
| **CJC 100 Basic Law Enforcement Training** | 9 30 0 19 | 9 | 30 | 0 | 19 | Prerequisites: Minimum Accuplacer reading score of 57  
Corequisites: None  
This course covers the basic skills and knowledge needed for entry-level employment as a law enforcement officer in North Carolina. Topics are divided into general units of study: legal, patrol duties, law enforcement communications, investigations, practical application and sheriff-specific. Upon successful completion, the student will be able to demonstrate competence in topics and areas required for the state comprehensive certification examination. This is a certificate-level course. |
| **CJC 111 Intro to Criminal Justice** | 3 0 0 3 | 3 | 0 | 0 | 3 | Prerequisites:  
Corequisites: None  
This course introduces the components and processes of the criminal justice system. Topics include history, structure, functions, and philosophy of the criminal justice system and their relationship to life in our society. Upon completion, students should be able to define and describe the major system components and their interrelationships and evaluate career options. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement. |
| **CJC 112 Criminology** | 3 0 0 3 | 3 | 0 | 0 | 3 | Prerequisites: None  
Corequisites: None  
This course introduces deviant behavior as it relates to criminal activity. Topics include theories of crime causation; statistical analysis of criminal behavior; past, present, and future social control initiatives; and other related topics. Upon completion, students should be able to explain and discuss various theories of crime causation and societal response. |
| **CJC 113 Juvenile Justice** | 3 0 0 3 | 3 | 0 | 0 | 3 | Prerequisites: None  
Corequisites: None  
This course covers the juvenile justice system and related juvenile issues. Topics include an overview of the juvenile justice system, treatment and prevention programs, special areas and laws unique to juveniles, and other related topics. Upon completion, students should be able to identify/discuss juvenile court structure/procedures, function and jurisdiction of juvenile agencies, processing/detention of juveniles, and case disposition. |
CJC 114 Investigative Photography 1 2 0 2
Prerequisites: None
Corequisites: None

This course covers the operation of various photographic equipment and its application to criminal justice. Topics include using various cameras, proper exposure of film, developing film/prints, and preparing photographic evidence. Upon completion, students should be able to demonstrate and explain the role of photography and proper film exposure and development techniques.

CJC 120 Interviews/Interrogations 1 2 0 2
Prerequisites: None
Corequisites: None

This course covers basic and special techniques employed in criminal justice interviews and interrogations. Emphasis is placed on the interview/interrogation process, including interpretation of verbal and physical behavior and legal perspectives. Upon completion, students should be able to conduct interviews/interrogations in a legal, efficient, and professional manner and obtain the truth from suspects, witnesses, and victims.

CJC 121 Law Enforcement Operations 3 0 0 3
Prerequisites: Proficiency in Reading - A grade of “C” or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading
Corequisites: None

This course introduces fundamental law enforcement operations. Topics include the contemporary evolution of law enforcement operations and related issues. Upon completion, students should be able to explain theories, practices, and issues related to law enforcement operations. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

CJC 131 Criminal Law 3 0 0 3
Prerequisites: None
Corequisites: None

This course covers the history/evolution/principles and contemporary applications of criminal law. Topics include sources of substantive law, classification of crimes, parties to crime, elements of crimes, matters of criminal responsibility, and other related topics. Upon completion, students should be able to discuss the sources of law and identify, interpret, and apply the appropriate statutes/elements.

CJC 132 Court Procedure & Evidence 3 0 0 3
Prerequisites: None
Corequisites: None

This course covers judicial structure/process/procedure from incident to disposition, kinds and degrees of evidence, and the rules governing admissibility of evidence in court. Topics include consideration of state and federal courts, arrest, search and seizure laws, exclusionary and statutory rules of evidence, and other related issues. Upon completion, students should be able to identify and discuss procedures necessary to establish a lawful arrest/search, proper judicial procedures, and the admissibility of evidence.

CJC 141 Corrections 3 0 0 3
Prerequisites: Proficiency in Reading - A grade of “C” or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading
Corequisites: None

This course covers the history, major philosophies, components, and current practices and problems of the field of corrections. Topics include historical evolution, functions of the various components, alternatives to incarceration, treatment programs, inmate control, and other related topics. Upon completion, students should be able to explain the various components, processes, and functions of the correctional system. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

CJC 142 Terrorism: Underlying Issues 3 0 0 3
Prerequisites: None
Corequisites: None

This course identifies the fundamental reasons why America is a target for terrorists, covering various domestic/international terrorist groups and ideologies from a historical aspect. Emphasis is placed upon recognition of terrorist crime scene; weapons of mass destruction; chemical, biological, and nuclear terrorism; and planning considerations involving threat assessments. Upon completion, students should be able to identify and discuss the methods used in terrorists’ activities and complete a threat assessment for terrorists’ incidents.

CJC 212 Ethics & Comm Relations 3 0 0 3
Prerequisites: None
Corequisites: None

This course covers ethical considerations and accepted standards applicable to criminal justice organizations and professionals. Topics include ethical systems; social change, values, and norms; cultural diversity; citizen involvement in criminal justice issues; and other related topics. Upon completion, students should be able to apply ethical considerations to the decision-making process in identifiable criminal justice situations.

CJC 213 Substance Abuse 3 0 0 3
Prerequisites: None
Corequisites: None

This course is a study of substance abuse in our society. Topics include the history and classifications of drug abuse and the social, physical, and psychological impact of drug abuse. Upon completion, students should be able to identify various types of drugs, their effects on human behavior and society, and treatment modalities.
COURSE DESCRIPTIONS

CJC 215 Organization & Admin  
Prerequisites: None  
Corequisites: None  
This course introduces the components and functions of organization and administration as it applies to the agencies of the criminal justice system. Topics include operations/functions of organizations; recruiting, training, and retention of personnel; funding and budgeting; communications; span of control and discretion; and other related topics. Upon completion, students should be able to identify and discuss the basic components and functions of a criminal justice organization and its administrative operations.

CJC 221 Investigative Principles  
Prerequisites: None  
Corequisites: None  
This course introduces the theories and fundamentals of the investigative process. Topics include crime scene/incident processing, information gathering techniques, collection/preservation of evidence, preparation of appropriate reports, court presentations, and other related topics. Upon completion, students should be able to identify, explain, and demonstrate the techniques of the investigative process, report preparation, and courtroom presentation.

CJC 222 Criminalistics  
Prerequisites: None  
Corequisites: None  
This course covers the functions of the forensic laboratory and its relationship to successful criminal investigations and prosecutions. Topics include advanced crime scene processing, investigative techniques, current forensic technologies, and other related topics. Upon completion, students should be able to identify and collect relevant evidence at simulated crime scenes and request appropriate laboratory analysis of submitted evidence.

CJC 231 Constitutional Law  
Prerequisites: None  
Corequisites: None  
The course covers the impact of the Constitution of the United States and its amendments on the criminal justice system. Topics include the structure of the Constitution and its amendments, court decisions pertinent to contemporary criminal justice issues, and other related topics. Upon completion, students should be able to identify/discuss the basic structure of the United States Constitution and the rights/procedures as interpreted by the courts.

CMT 112 Construction Mgt I  
Prerequisites: None  
Corequisites: None  
This course introduces students to the field of construction management technology. Topics include job planning, work methods, materials, equipment, and other related topics. Upon completion, students should be able to demonstrate basic knowledge of methods, materials, equipment, and the logical sequence of a construction project.

CMT 120 Codes and Inspections  
Prerequisites: None  
Corequisites: None  
This course covers building codes and the code inspections process used in the design and construction of residential and commercial buildings. Emphasis is placed on commercial, residential, and accessibility (handicapped) building codes. Upon completion, students should be able to understand the building code inspections process and apply building code principals and requirements to construction projects.

CMT 210 Construction Management Fund  
Prerequisites: None  
Corequisites: None  
This course introduces the student to the fundamentals of effective supervision emphasizing professionalism through knowledge and applied skills. Topics include safety, planning and scheduling, contract, problem-solving, communications, conflict resolution, recruitment, employment laws and regulations, leadership, motivation, teamwork, discipline, setting objectives, and training. Upon completion, the student should be able to demonstrate the basic skills necessary to be successful as a supervisor in the construction industry.

CMT 212 Total Safety Performance  
Prerequisites: None  
Corequisites: CMT 210  
This course covers the importance of managing safety and productivity equally by encouraging people to take individual responsibility for safety and health in the workplace. Topics include safety management, controlling construction hazards, communicating and enforcing policies, OSHA compliance, personal responsibility and accountability, safety planning, training, and personal protective equipment. Upon completion, students should be able to supervise safety at a construction job site and qualify for the OSHA Training Certification.

CMT 214 Planning and Scheduling  
Prerequisites: CMT 210 and BPR 130  
Corequisites: None  
This course covers the need for the process of planning construction projects, as well as the mechanics and vocabulary of project scheduling. Topics include project preplanning, scheduling format, planning for production, short interval planning, schedule updating and revising, and computer-based planning and scheduling. Upon completion, the student should be able to understand the need for planning and scheduling, the language and logic of scheduling, and use of planning skills.
This course provides instruction on human relations issues as they relate to construction project supervision. Topics include relationships, human behavior, project staffing issues, teamwork, effective communication networks, laws and regulations, and identifying and responding to conflict, crisis, and discipline. Upon completion, the student will demonstrate an understanding of the importance of human relations in the success of a construction project.

This course covers basic knowledge necessary for gaining and maintaining employment. Topics include job search skills, work ethic, meeting employer expectations, workplace safety, and human relations. Upon completion, students should be able to successfully make the transition from school to work.

This course provides work experience with a college-approved employer in an area related to the student’s program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies. Students must meet program requirements for co-op credit. *COE Work Experience courses require students to complete a co-op application and get approval for participation prior to registering for classes. To determine if you qualify or find out more about Co-op, please refer to the “Cooperative Education” section in the front of this catalog. www.cfcc.edu/co-op, or your advisor for more details.

This course is designed to be a corequisite seminar to accompany Co-operative Work Experience 111. Topics include: examination and analysis of the organizational structure, career path, job descriptions, job breakdowns and management style.

This course provides work experience with a college-approved employer in an area related to the student’s program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies. Students must meet program requirements for co-op credit. *COE Work Experience courses require students to complete a co-op application and get approval for participation prior to registering for classes. To determine if you qualify or find out more about Co-op, please refer to the “Cooperative Education” section in the front of this catalog. www.cfcc.edu/co-op, or your advisor for more details.

This course provides work experience with a college-approved employer in an area related to the student’s program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies. Students must meet program requirements for co-op credit. *COE Work Experience courses require students to complete a co-op application and get approval for participation prior to registering for classes. To determine if you qualify or find out more about Co-op, please refer to the “Cooperative Education” section in the front of this catalog. www.cfcc.edu/co-op, or your advisor for more details.

This course provides work experience with a college-approved employer in an area related to the student’s program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies. Students must meet program requirements for co-op credit. *COE Work Experience courses require students to complete a co-op application and get approval for participation prior to registering for classes. To determine if you qualify or find out more about Co-op, please refer to the “Cooperative Education” section in the front of this catalog. www.cfcc.edu/co-op, or your advisor for more details.

This course provides work experience with a college-approved employer in an area related to the student’s program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies. Students must meet program requirements for co-op credit. *COE Work Experience courses require students to complete a co-op application and get approval for participation prior to registering for classes. To determine if you qualify or find out more about Co-op, please refer to the “Cooperative Education” section in the front of this catalog. www.cfcc.edu/co-op, or your advisor for more details.
skills, and satisfactorily perform work-related competencies. Students must meet programmatic requirements for co-op credit. *COE Work Experience courses require students to complete a co-op application and get approval for participation prior to registering for classes. To determine if you qualify or find out more about Co-op, please refer to the “Cooperative Education” section in the front of this catalog, www.cfcc.edu/co-op, or your advisor for more details.

**Course Descriptions**

**COM 110 Intro to Communication** 3 0 0 3  
Prerequisites: Proficiency in Reading - A grade of “C” or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading  
Corequisites: None  
This course provides an overview of the basic concepts of communication and the skills necessary to communicate in various contexts. Emphasis is placed on communication theories and techniques used in interpersonal group, public, intercultural, and mass communication situations. Upon completion, students should be able to explain and illustrate the forms and purposes of human communication in a variety of contexts. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in communication and may meet the SACS communication requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs. This course may also substitute as a humanities/fine arts course for AA, AS, and AFA programs.

**COM 111 Voice and Diction I** 3 0 0 3  
Prerequisites: None  
Corequisites: None  
This course provides guided practice in the proper production of speech. Emphasis is placed on improving speech, including breathing, articulation, pronunciation, and other vocal variables. Upon completion, students should be able to demonstrate effective natural speech in various contexts. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement. This course may meet the SACS communication requirement for AGE, AAS, DIP, or CER programs.

**COM 120 Introduction to Interpersonal Communication** 3 0 0 3  
Prerequisites: Proficiency in Reading - A grade of “C” or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading  
Corequisites: None  
This course introduces the practices and principles of interpersonal communication in both dyadic and group settings. Emphasis is placed on the communication process, perception, listening, self-disclosure, speech apprehension, ethics, nonverbal communication, conflict, power, and dysfunctional communication relationships. Upon completion, students should be able to demonstrate interpersonal communication skills, apply basic principles of group discussion, and manage conflict in interpersonal communication situations. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in communication and may meet the SACS communication requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs. This course may also substitute as a humanities/fine arts course for AA, AS, and AFA programs.

**COM 140 Introduction to Intercultural Communication** 3 0 0 3  
Prerequisites: Proficiency in Reading - A grade of “C” or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading  
Corequisites: None  
This course introduces techniques of cultural research, definitions, functions, characteristics, and impacts of cultural differences in public address. Emphasis is placed on how diverse backgrounds influence the communication act and how cultural perceptions and experiences determine how one sends and receives messages. Upon completion, students should be able to demonstrate an understanding of the principles and skills needed to become effective in communicating outside one’s primary culture. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement. This course may meet the SACS communication requirement for AGE, AAS, DIP, or CER programs.

**COM 150 Introduction to Mass Communication** 3 0 0 3  
Prerequisites: ENG 111  
Corequisites: ENG 112 or ENG 113 or ENG 114  
This course introduces print and electronic media and the new information technologies in terms of communication theory and as economic, political, and social institutions. Emphasis is on the nature, history, functions, and responsibilities of mass communication industries in a global environment and their role and impact in American society. Upon completion, students should have an awareness of the persuasive nature of the mass media and how the media operate in an advanced post-industrial society. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

**COM 160 Small Group Communication** 3 0 0 3  
Prerequisites: None  
Corequisites: None  
This course provides an overview of the theory, practice, and critical analysis of communication in the small group setting. Emphasis is placed on group development, conflict, and conformity; leadership skills and styles; group roles and ranks; and decision making, problem solving, and conflict resolution. Upon completion, students should be able to apply topics of gender, culture, and social-emotional functions within group settings. This course has been approved to satisfy the
**CAFE FEAR COMMUNITY COLLEGE**

**Class Lab Clinical Credit**

**COM 231 Public Speaking** 3 0 0 3  
Prerequisites: Proficiency in Reading - A grade of “C” or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading  
Corequisites: None  
This course provides instruction and experience in preparation and delivery of speeches within a public setting and group discussion. Emphasis is placed on research; preparation; delivery; and evaluation of informative, persuasive, and special occasion public speaking. Upon completion, students should be able to prepare and deliver well-organized speeches and participate in group discussion with appropriate audiovisual support. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in communication and may meet the SACS communication requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs. This course may also substitute as a humanities/fine arts course for AA, AS, and AFA programs.

**COM 232 Election Rhetoric** 3 0 0 3  
Prerequisites: Proficiency in Reading - A grade of “C” or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading  
Corequisites: None  
This course provides an overview of communication styles and topics characteristic of election campaigns. Topics include election speeches, techniques used in election campaigns, and election speech topics. Upon completion, students should be able to identify and analyze techniques and styles typically used in election campaigns. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

**COM 233 Persuasive Speaking** 3 0 0 3  
Prerequisites: ENG 112 or ENG 113  
Corequisites: None  
This course introduces theory and history of persuasive speaking, covering critical thinking skills in analyzing problems, assessing solutions, and communicating the information to an audience. Emphasis is placed on analysis, evidence, reasoning, and library and field research used to enhance persuasive public speaking skills. Upon completion, students should be able to apply the principles of persuasive speaking in a public setting. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement. This course may meet the SACS communication requirement for AGE, AAS, DIP, or CER programs.

**Class Lab Clinical Credit**

**COM 250 Public Communication** 3 0 0 3  
Prerequisites: ENG 113 or ENG 114 and COM 120 or COM 231  
Corequisites: None  
This course provides a comprehensive theoretical background for the practice of speaking in public utilizing rhetoric principles applied in a series of speaking experiences. Emphasis is on informative and persuasive advanced speaking skills; speaking using the teleprompter, and on-camera presentations of news, weather and commercials. Upon completion, students should be able to construct, present, and critique public communications that are complex, dynamic and purposeful. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

**COM 251 Debate I** 3 0 0 3  
Prerequisites: None  
Corequisites: None  
This course introduces the principles of debate. Emphasis is placed on argument, refutation, research, and logic. Upon completion, students should be able to use research skills and logic in the presentation of ideas within the context of formal debate. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement. This course may meet the SACS communication requirement for AGE, AAS, DIP, or CER programs.

**COM 252 Debate II** 3 0 0 3  
Prerequisites: COM 251  
Corequisites: None  
This course continues the study of debate begun in COM 251. Emphasis is placed on argument, refutation, research, and logic. Upon completion, students should be able to demonstrate proficiency in research skills, logic, and presentation of ideas within the context of formal debate. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

**COS 111 Cosmetology Concepts I** 4 0 0 4  
Prerequisites: Proficiency in Reading - A grade of “C” or better in ENG 085 or RED 080 OR minimum Accuplacer score of 57 on Reading  
Corequisites: COS 112  
This course introduces basic cosmetology concepts. Topics include safety, first aid, sanitation, bacteriology, anatomy, diseases and disorders, hygiene, product knowledge, chemistry, ethics, manicures, and other related topics. Upon completion, students should be able to safely and competently apply cosmetology concepts in the salon setting.
This course introduces basic salon services. Topics include scalp treatments, shampooing, rinsing, hair color, design, haircutting, permanent waving, pressing, relaxing, wigs, and other related topics. Upon completion, students should be able to safely and competently demonstrate salon services.

**COS 113 Cosmetology Concepts II**
Prerequisites: COS 111 and COS 112
Corequisites: COS 114

This course covers more comprehensive cosmetology concepts. Topics include safety, product knowledge, chemistry, manicuring, chemical restructuring, and hair coloring. Upon completion, students should be able to safely and competently apply these cosmetology concepts in the salon setting.

**COS 114 Salon II**
Prerequisites: COS 111 and COS 112
Corequisites: COS 113

This course provides experience in a simulated salon setting. Topics include basic skin care, manicuring, nail application, scalp treatments, shampooing, rinsing, hair color, design, haircutting, chemical restructuring, pressing, wigs, and other related topics. Upon completion, students should be able to safely and competently demonstrate these salon services.

**COS 115 Cosmetology Concepts III**
Prerequisites: COS 111 and COS 112
Corequisites: COS 116

This course covers more comprehensive cosmetology concepts. Topics include safety, product knowledge, salon management, salesmanship, skin care, electricity/light therapy, wigs, thermal hair styling, lash and brow tinting, superfluous hair removal, and other related topics. Upon completion, students should be able to safely and competently apply these cosmetology concepts in the salon setting.

**COS 116 Salon III**
Prerequisites: COS 111 or COS 112
Corequisites: COS 115

This course provides comprehensive experience in a simulated salon setting. Emphasis is placed on intermediate-level of skin care, manicuring, scalp treatments, shampooing, hair color, design, haircutting, chemical restructuring, pressing, and other related topics. Upon completion, students should be able to safely and competently demonstrate these salon services.

**COS 117 Cosmetology Concepts IV**
Prerequisites: COS 115 or COS 113
Corequisites: COS 118

This course covers advanced cosmetology concepts. Topics include chemistry and hair structure, advanced cutting and design, and an overview of all cosmetology concepts in preparation for the licensing examination. Upon completion, students should be able to demonstrate an understanding of these cosmetology concepts and meet program completion requirements.

**COS 118 Salon IV**
Prerequisites: COS 114 or COS 116
Corequisites: COS 117

This course provides advanced experience in a simulated salon setting. Emphasis is placed on efficient and competent delivery of all salon services in preparation for the licensing examination and employment. Upon completion, students should be able to demonstrate competence in program requirements and the areas covered on the Cosmetology Licensing Examination and meet entry-level employment requirements.

**COS 119 Esthetics Concepts I**
Prerequisites: Proficiency in Reading - A grade of “C” or better in ENG 085 or RED 080 OR minimum Accuplacer score of 57 on Reading
Corequisites: COS 120

This course covers the concepts of esthetics. Topics include orientation, anatomy, physiology, hygiene, sterilization, first aid, chemistry, basic dermatology, and professional ethics. Upon completion, students should be able to demonstrate an understanding of the concepts of esthetics and meet course requirements.

**COS 120 Esthetics Salon I**
Prerequisites: None
Corequisites: COS 119

This course covers the techniques of esthetics in a comprehensive experience in a simulated salon setting. Topics include client consultation, facials, body treatments, hair removal, make-up applications, and color analysis. Upon completion, students should be able to safely and competently demonstrate esthetic services on clients in a salon setting.

**COS 121 Manicure/Nail Technology I**
Prerequisites: None
Corequisites: None

This course covers techniques of nail technology, hand and arm massage, and recognition of nail diseases and disorders. Topics include OSHA/safety, sanitation, bacteriology, product knowledge, salesmanship, manicures, artificial applications, pedicures, massage, and other related topics. Upon completion, students should be able to safely and competently perform nail
care, including manicures, pedicures, massage, decorating, and artificial applications in a salon setting.

**COS 125 Esthetics Concepts II**  
Prerequisites: COS 119 and COS 120  
Corequisites: COS 126  
This course covers more comprehensive esthetics concepts. Topics include nutrition, business management, makeup, and color analysis. Upon completion, students should be able to demonstrate an understanding of the advanced esthetics concepts and meet course requirements.

**COS 126 Esthetics Salon II**  
Prerequisites: COS 119 and COS 120  
Corequisites: COS 125  
This course provides experience in a simulated esthetics setting. Topics include machine facials, aromatherapy, massage therapy, electricity, and apparatus. Upon completion, students should be able to demonstrate competence in program requirements and the areas covered on the Cosmetology Licensing Examination for Estheticians.

**COS 222 Manicure/Nail Tech II**  
Prerequisites: COS 121  
Corequisites: None  
This course covers advanced techniques of nail technology and hand and arm massage. Topics include OSHA/safety, product knowledge, customer service, salesmanship, artificial applications, nail art, and other related topics. Upon completion, students should be able to demonstrate competence in program requirements and the areas covered on the Cosmetology Licensing Examination for Estheticians.

**COS 223 Contemp Hair Coloring**  
Prerequisites: COS 111 and COS 112  
Corequisites: None  
This course covers basic color concepts, hair coloring problems, and application techniques. Topics include color theory, terminology, contemporary techniques, product knowledge, and other related topics. Upon completion, students should be able to identify a client’s color needs and safely and competently perform color applications and correct problems.

**COS 224 Trichology & Chemistry**  
Prerequisites: None  
Corequisites: None  
This course is a study of hair and the interaction of applied chemicals. Emphasis is placed on pH actions and the reactions and effects of chemical ingredients. Upon completion, students should be able to demonstrate an understanding of chemical terminology, pH testing, and chemical reactions on hair.

---

**COS 240 Contemporary Design**  
Prerequisites: COS 111 and COS 112  
Corequisites: None  
This course covers methods and techniques for contemporary designs. Emphasis is placed on contemporary designs and other related topics. Upon completion, students should be able to demonstrate and apply techniques associated with contemporary design.

**COS 253 Esthetics Ins. Concepts I**  
Prerequisites: Valid NC Cosmetology or Esthetician License  
Corequisites: None  
This course introduces esthetic instructional concepts and skills. Topics include orientation, theories of education, unit planning, daily lesson plans, laboratory management, student assessment in a laboratory setting. Upon completion, students should be able to demonstrate esthetic services and instruct and objectively assess student performance in a classroom setting.

**COS 254 Esthetic Ins. Concepts II**  
Prerequisites: COS 253  
Corequisites: None  
This course covers advanced esthetic instructional concepts and skills. Topics include practical demonstrations, lesson planning, lecture techniques, development and administration of assessment tools, record keeping and other related topics. Upon completion, students should be able to demonstrate competencies in the areas covered by the Esthetics Instructor Licensing Examination and meet program requirements.

**COS 260 Design Applications**  
Prerequisites: None  
Corequisites: None  
This course provides an overview of the design concepts used in cosmetology. Topics include the application of art principles and elements to artistically design hair, nails, and make-up and other related topics. Upon completion, students should be able to demonstrate knowledge and techniques associated with design concepts.

**COS 271 Instructor Concepts I**  
Prerequisites: Valid NC Cosmetology License  
Corequisites: COS 272  
This course introduces the basic cosmetology instructional concepts. Topics include orientation, theories of education, unit planning, daily lesson planning, laboratory management, student assessment, record keeping, and other related topics. Upon completion, students should be able to identify theories of education, develop lesson plans, demonstrate supervisory techniques, and assess student performance in a classroom setting.
This course covers supervisory and instructional skills for teaching entry-level cosmetology students in a laboratory setting. Topics include demonstrations of services, supervision, and entry-level student assessment. Upon completion, students should be able to demonstrate salon services and instruct and objectively assess the entry-level student.

This course covers advanced cosmetology instructional concepts. Topics include practical demonstrations, lesson planning, lecture techniques, development and administration of assessment tools, record keeping, and other related topics. Upon completion, students should be able to develop lesson plans, demonstrate supervision techniques, assess student performance in a classroom setting, and keep accurate records.

This course is designed to develop supervisory and instructional skills for teaching advanced cosmetology students in a laboratory setting. Topics include practical demonstrations, supervision, and advanced student assessment. Upon completion, students should be able to demonstrate competence in the areas covered by the Instructor Licensing Examination and meet program completion requirements.

This course introduces computer programming using the C programming language with object-oriented programming principles. Emphasis is placed on event-driven programming methods, including creating and manipulating objects, classes, and using object-oriented tools such as the class debugger. Upon completion students should be able to design, code, test, debug and implement objects using the appropriate environment at the beginning level.

This course is a continuation of CSC 151 using the JAVA programming language with object-oriented programming principles. Emphasis is placed on event-driven programming methods, including creating and manipulating objects, classes, and using object-oriented tools such as the class debugger. Upon completion, students should be able to design, code, test, debug, and implement objects using the appropriate environment.

This course provides students with the latest technologies and strategies in the field of Computer Programming. Emphasis is placed on the evaluation of developing Computer Programming Technologies and presenting those findings to the class. Upon
completion, students should be able to critically analyze emerging Computer Programming Technologies and establish informed opinions.

**CST 111 Construction I**

<table>
<thead>
<tr>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>3</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

Prerequisites: None
Corequisites: None

This course covers standard and alternative building methods to include wall framing. Topics include safety and footings, foundations, floor framing systems, and wall framing systems commonly used in the construction industry. Upon completion, students should be able to safely erect all framing necessary to begin roof framing.

**CST 150 Building Science**

<table>
<thead>
<tr>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>2</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>

Prerequisites: None
Corequisites: None

This course introduces concepts and techniques for the design and interaction of the mechanical systems of high performance buildings. Topics include building envelope, heating, ventilation and air conditioning (HVAC), indoor air quality, lighting, plumbing and electrical. Upon completion, students should be able to understand building systems interaction and performance.

**CST 241 Planning/Estimating I**

<table>
<thead>
<tr>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>2</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>

Prerequisites: BPR 130 or MAT 120 or MAT 121 or MAT 161 or MAT 171 or MAT 175
Corequisites: None

This course covers the procedures involved in planning and estimating a construction/building project. Topics include performing quantity take-offs of materials necessary for a building project. Upon completion, students should be able to accurately complete a take-off of materials and equipment needs involved in a construction project.

**CTC 111 Basic Chemistry I**

<table>
<thead>
<tr>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>6</td>
<td>0</td>
<td>7</td>
</tr>
</tbody>
</table>

Prerequisites: None
Corequisites: MAT 121

This course introduces the basic principles of chemistry with emphasis on applications to chemical technology. Topics include measurement, elements, compounds, moles, solutions, reactions, gases, molecular structure, electron configurations, nomenclature, periodic trends, stoichiometry, and basic laboratory tools, techniques, and safety. Upon completion, students should be able to demonstrate an understanding of basic chemical calculations and routine laboratory procedures.

**CTC 112 Basic Chemistry II**

<table>
<thead>
<tr>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>6</td>
<td>0</td>
<td>7</td>
</tr>
</tbody>
</table>

Prerequisites: CTC 111
Corequisites: None

This course introduces solubility, electrochemistry, chemical kinetics, chemical equilibrium, acid/base chemistry, and nuclear chemistry. Topics include solubility products, element families, and basic laboratory tools, techniques, and safety. Upon completion, students should be able to demonstrate an understanding of basic chemical calculations and routine laboratory procedures.

**CTC 120 Organic Chemistry I**

<table>
<thead>
<tr>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
</tbody>
</table>

Prerequisites: CTC 111
Corequisites: None

This course covers the nomenclature and properties of organic functional groups with a focus on applications to chemical technology. Emphasis is placed on properties of aliphatic and aromatic hydrocarbons, including alkanes, cycloalkanes, alkenes, alkynes, alcohols and others. Upon completion, students should be able to name, identify, and predict reactions for organic molecules.

**CTC 140 Organic Processes**

<table>
<thead>
<tr>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>1</td>
<td>0</td>
<td>7</td>
</tr>
</tbody>
</table>

Prerequisites: CTC 120
Corequisites: None

This course introduces a chemical technology “real world” laboratory experience. Topics include stereochemistry, delocalization, substitution, elimination reactions and basic laboratory methods such as distillation, extraction, and the use of IR and UV-VIS. Upon completion, students should be able to demonstrate competence in the laboratory techniques presented as well as predict organic reactions.

**CTC 220 Organic Chemistry II**

<table>
<thead>
<tr>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>6</td>
<td>0</td>
<td>6</td>
</tr>
</tbody>
</table>

Prerequisites: CTC 140
Corequisites: None

This course covers intermediate nomenclature and properties of organic functional groups with emphasis on applications to chemical technology. Topics include the preparation, reactions, and analysis of alcohols, amines, ethers, epoxides, and carbonyl compounds. Upon completion, students should be able to predict products from intermediate reactions and determine structures of organic compounds by utilizing IR, UV, and RI.

**CTC 230 Organic Chemistry III**

<table>
<thead>
<tr>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>6</td>
<td>0</td>
<td>5</td>
</tr>
</tbody>
</table>

Prerequisites: CTC 220
Corequisites: None

This course introduces chemistry at the biological level. Topics include nitrogen compounds, polymers, stereochemistry, carbohydrates, lipids, amino acids, proteins, nucleic acids, protein and nucleic purification, electrophoresis, PCR, and enzymes. Upon completion, students should be able to recognize biologically active compounds, describe their structure and activity, and predict organic products of biological reactions.
COURSE DESCRIPTIONS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTC 240</td>
<td>Industrial Analysis I</td>
<td>2</td>
<td>6</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Prerequisites: CTC 140</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This course covers appropriate use of equipment and instruments in pharmaceutical and industrial settings as well as qualitative chemical analysis of selected inorganic ions. Emphasis is placed on sample preparation, statistical parameters, titrations, potentiometric methods and various forms of spectroscopy, including UV, AA, AE, IR, NMR, and mass spectroscopy. Upon completion, students should be able to carry out all analytical schemes presented.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTC 250</td>
<td>Industrial Analysis II</td>
<td>2</td>
<td>6</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Prerequisites: CTC 240</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This course covers the use of various instruments and analytical methods in pharmaceutical, academic, or industrial settings. Emphasis is placed on various forms of chromatography, including GC, HPLC, IC, TLC, and size exclusion, as well as chemiluminescence and radioactive labels. Upon completion, students should be able to carry out all analytical schemes presented and be able to utilize all applicable instruments.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTC 240 V</td>
<td>Virtualization Admin I</td>
<td>1</td>
<td>4</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Prerequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This course covers datacenter virtualization concepts. Topics include data storage, virtual network configuration, virtual machine and virtual application deployment. Upon completion, students should be able to perform tasks related to virtual machine and hypervisor installation and configuration.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTS 115</td>
<td>Info Sys Business Concepts</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Prerequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The course introduces the role of IT in managing business processes and the need for business process and IT alignment. Emphasis is placed on industry need for understanding business challenges and developing/managing information systems to contribute to the decision making process based on these challenges. Upon completion, students should be able to demonstrate knowledge of the hybrid business manager and the potential offered by new technology and systems. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTS 120</td>
<td>Hardware/Software Support</td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Prerequisites: CIS 110 or CIS 111</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This course covers the basic hardware of a personal computer, including installation, operations and interactions with software. Topics include component identification, memory-

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTS 130</td>
<td>Spreadsheet</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Prerequisites: CTS 110 or CIS 111 or OST 137</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This course introduces basic spreadsheet design and development. Topics include writing formulas, using functions, enhancing spreadsheets, creating charts, and printing. Upon completion, students should be able to design and print basic spreadsheets and charts.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTS 250</td>
<td>Systems Analysis &amp; Design</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Prerequisites: CIS 115</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This course introduces established and evolving methodologies for the analysis, design, and development of an information system. Emphasis is placed on system characteristics, managing projects, prototyping, CASE/OOM tools, and systems development life cycle phases. Upon completion, students should be able to analyze a problem and design an appropriate solution using a combination of tools and techniques.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTS 289</td>
<td>System Support Project</td>
<td>1</td>
<td>4</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Prerequisites: CTS 285</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This course provides an opportunity to complete a significant support project with minimal instructor assistance. Emphasis is placed on written and oral communication skills, project definition, documentation, installation, testing, presentation, and user training. Upon completion, students should be able to complete a project from the definition phase through implementation.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUL 110</td>
<td>Sanitation &amp; Safety</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Prerequisites: Proficiency in Reading - A grade of “C” or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corequisites: CUL 110A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This course introduces the basic principles of sanitation and safety and their relationship to the hospitality industry. Topics include personal hygiene, sanitation and safety regulations, use and care of equipment, the principles of food-borne illness, and other related topics. Upon completion, students should be able to demonstrate an understanding of the content necessary for successful completion of a nationally recognized food/safety/sanitation exam.
CAFE FEAR COMMUNITY COLLEGE

CUL 110A Sanitation & Safety Lab 0 2 0 1
Prerequisites: Proficiency in Reading - A grade of “C” or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading
Corequisites: CUL 110

This course provides a laboratory experience for enhancing student skills in the basic principles of sanitation and safety. Emphasis is placed on personal hygiene, sanitation and safety regulations, use and care of equipment, the principles of foodborne illness, and other related topics. Upon completion, students should be able to demonstrate practical applications of sanitation and safety procedures in the hospitality industry.

CUL 120 Purchasing 2 0 0 2
Prerequisites: None
Corequisites: CUL 120A

This course covers purchasing for foodservice operations. Emphasis is placed on yield tests, procurement, negotiating, inventory control, product specification, purchasing ethics, vendor relationships, food product specifications and software applications. Upon completion, students should be able to apply effective purchasing techniques based on the end-use of the product.

CUL 120A Purchasing Lab 0 2 0 1
Prerequisites: None
Corequisites: CUL 120

This course provides a laboratory experience for enhancing student skills in purchasing for foodservice operations. Emphasis is placed on practical experiences in yield tests, procurement, negotiating, inventory control, product specification, purchasing ethics, vendor relationships, food product specifications and software applications. Upon completion, students should be able to demonstrate practical applications of purchasing within the hospitality industry.

CUL 125 Hospitality Info Systems 1 2 0 2
Prerequisites: None
Corequisites: None

This course introduces hospitality and food service information systems. Topics include planning, cost controls, forecasting, inventory control, recipe control, production control, and nutritional analysis. Upon completion, students should be able to demonstrate competence in utilizing contemporary information application systems in a hospitality setting.

CUL 130 Menu Design 2 0 0 2
Prerequisites: None
Corequisites: None

This course introduces menu design and its relationship to foodservice operations. Topics include layout, marketing, concept development, dietary concerns, product utilization, target consumers and trends. Upon completion, students should be able to design, create and produce menus for a variety of foodservice settings.

CUL 135 Food & Beverage Service 2 0 0 2
Prerequisites: None
Corequisites: CUL 135A

This course is designed to cover the practical skills and knowledge necessary for effective food and beverage service in a variety of settings. Topics include greeting/service of guests, dining room set-up, profitability, menu sales and merchandising, service styles and reservations. Upon completion, students should be able to demonstrate competence in human relations and the skills required in the service of foods and beverages.

CUL 135A Food & Bev Serv Lab 0 2 0 1
Prerequisites: None
Corequisites: CUL 135

This course provides a laboratory experience for enhancing student skills in effective food and beverage service. Emphasis is placed on practical experiences including greeting/service of guests, dining room set-up, profitability, menu sales and merchandising, service styles and reservations. Upon completion, students should be able to demonstrate practical applications of human relations and the skills required in the service of foods and beverages.

CUL 140 Culinary Skills I 2 6 0 5
Prerequisites: Proficiency in Reading - A grade of “C” or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading
Corequisites: CUL 110 and CUL 110A

This course introduces the fundamental concepts, skills and techniques in basic cookery, and moist, dry and combination heat. Emphasis is placed on recipe conversion, measurements, terminology, classical knife cuts, safe food/equipment handling, flavorings/seasonings, stocks/sauces/soups, and related topics. Upon completion, students should be able to exhibit the basic cooking skills used in the foodservice industry.

CUL 142 Fundamentals of Food 2 6 0 5
Prerequisites: None
Corequisites: None

This course introduces the student to the basic principles of cooking, baking and kitchen operations. Topics include preparation methods for protein, starch, vegetable/fruit identification/selection, storage; breakfast cookery, breads, sweet dough/pastries, basic fabrication, knife skills, and mise en place. Upon completion, students should be able to execute efficiently a broad range of basic cooking/baking skills as they apply to different stations in foodservice operations.
<table>
<thead>
<tr>
<th>COURSE DESCRIPTIONS</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CUL 214 Wine Appreciation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prerequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>This course provides an introduction to information about wine from all the major wine producing regions. Emphasis is placed on the history of wine, production, characteristics, wine list development, laws, purchasing and storing requirements. Upon completion, students should be able to evaluate varietal wines and basic food pairings.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>CUL 220 Food Service for Spec Ops</strong></td>
<td>1</td>
<td>8</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Prerequisites: CUL 110 and CUL 110A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>This course covers menu planning principles, food preparation, food procurement, and food management skills needed to provide appealing and profitable food service in special operations. Topics include fast-food cookery, convenience-store food service, supermarkets, delicatessens, and take-out venue. Upon completion, students should be able to plan, organize, and prepare food service items for special operations.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>CUL 230 Global Cuisines</strong></td>
<td>1</td>
<td>8</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Prerequisites: CUL 110 and CUL 140</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>This course provides practical experience in the planning, preparation, and presentation of representative foods from a variety of world cuisines. Emphasis is placed on indigenous ingredients and customs, nutritional concerns, and cooking techniques. Upon completion, students should be able to research and execute a variety of international and domestic menus.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>CUL 240 Culinary Skills II</strong></td>
<td>1</td>
<td>8</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Prerequisites: CUL 110 and CUL 140</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>This course is designed to further students’ knowledge of the fundamental concepts, skills, and techniques involved in basic cookery. Emphasis is placed on meat identification/fabrication, butchery and cooking techniques/methods; appropriate vegetable/starch accompaniments; compound sauces; plate presentation; breakfast cookery; and quantity food preparation. Upon completion, students should be able to plan, execute, and successfully serve entrees with complementary side items.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>CUL 245 Contemporary Cuisines</strong></td>
<td>1</td>
<td>8</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Prerequisites: CUL 110 and CUL 140</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>This course introduces students to current culinary trends which include a variety of preparation methods. Topics include current and developing trends such as adaptation of native/regional ingredients and preparation methods into contemporary cuisines. Upon completion, students should be able to demonstrate knowledge of a variety of contemporary cuisines.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**CUL 150 Food Science**

Prerequisites: Proficiency in Reading - A grade of “C” or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading
Corequisites: CUL 110 and CUL 110A

This course covers the chemical and physical changes in foods that occur with cooking, handling, and processing. Emphasis is placed on practical application of heat transfer and its effect on color/flavor/texture, emulsification, protein coagulation, leavening agents, viscosity, and gel formation. Upon completion, students should be able to demonstrate an understanding of these principles as they apply to food preparation in an experimental setting.

**CUL 160 Baking I**

Prerequisites: Proficiency in Reading - A grade of “C” or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading
Corequisites: CUL 110 and CUL 110A

This course covers basic ingredients, techniques, weights and measures, baking terminology and formula calculations. Topics include yeast/chemically leavened products, laminated doughs, pastry dough batter, pies/tarts, meringue, custard, cakes and cookies, icings, glazes and basic sauces. Upon completion, students should be able to demonstrate proper scaling and measurement techniques, and prepare and evaluate a variety of bakery products.

**CUL 170 Garde-Manger I**

Prerequisites: CUL 140
Corequisites: CUL 110 and CUL 110A

This course introduces basic cold food preparation techniques and pantry production. Topics include salads, sandwiches, appetizers, dressings, basic garnishes, cheeses, cold sauces, and related food items. Upon completion, students should be able to present a cold food display and exhibit an understanding of the cold kitchen and its related terminology.

**CUL 210 Food Service for Spec Pop**

Prerequisites: Proficiency in Reading - A grade of “C” or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading
Corequisites: CUL 110 and CUL 110A

This course covers nutrition and menu planning principles, food preparation, and food management skills needed to provide meals to special populations. Topics include food preparation for child care, geriatric, and school settings. Upon completion, students should be able to plan, organize, and prepare appealing and nutritious meals for special populations within appropriate guidelines.

**CUL 214 Wine Appreciation**

Prerequisites: None
Corequisites: None

This course provides an introduction to information about wine from all the major wine producing regions. Emphasis is placed on the history of wine, production, characteristics, wine list development, laws, purchasing and storing requirements. Upon completion, students should be able to evaluate varietal wines and basic food pairings.

**CUL 220 Food Service for Spec Ops**

Prerequisites: CUL 110 and CUL 110A
Corequisites: None

This course covers menu planning principles, food preparation, food procurement, and food management skills needed to provide appealing and profitable food service in special operations. Topics include fast-food cookery, convenience-store food service, supermarkets, delicatessens, and take-out venue. Upon completion, students should be able to plan, organize, and prepare food service items for special operations.

**CUL 230 Global Cuisines**

Prerequisites: CUL 110 and CUL 140
Corequisites: None

This course provides practical experience in the planning, preparation, and presentation of representative foods from a variety of world cuisines. Emphasis is placed on indigenous ingredients and customs, nutritional concerns, and cooking techniques. Upon completion, students should be able to research and execute a variety of international and domestic menus.

**CUL 240 Culinary Skills II**

Prerequisites: CUL 110 and CUL 140
Corequisites: None

This course is designed to further students’ knowledge of the fundamental concepts, skills, and techniques involved in basic cookery. Emphasis is placed on meat identification/fabrication, butchery and cooking techniques/methods; appropriate vegetable/starch accompaniments; compound sauces; plate presentation; breakfast cookery; and quantity food preparation. Upon completion, students should be able to plan, execute, and successfully serve entrees with complementary side items.

**CUL 245 Contemporary Cuisines**

Prerequisites: CUL 110 and CUL 140
Corequisites: None

This course introduces students to current culinary trends which include a variety of preparation methods. Topics include current and developing trends such as adaptation of native/regional ingredients and preparation methods into contemporary cuisines. Upon completion, students should be able to demonstrate knowledge of a variety of contemporary cuisines.
### CUL 250 Classical Cuisine
Prerequisites: CUL 110, CUL 140 and CUL 240  
Corequisites: None

This course is designed to reinforce the classical culinary kitchen. Topics include the working Grand Brigade of the kitchen, signature dishes and classical banquets. Upon completion, students should be able to demonstrate competence in food preparation in a classical/upscale restaurant or banquet setting.

### CUL 260 Baking II
Prerequisites: CUL 110 and CUL 160  
Corequisites: None

This course is designed to further students’ knowledge in ingredients, weights and measures, baking terminology and formula calculation. Topics include classical desserts, frozen desserts, cake and torte production, decorating and icings/glazes, dessert plating and presentation. Upon completion, students should be able to demonstrate pastry preparation, plating, and dessert buffet production skills.

### CUL 270 Garde-Manger II
Prerequisites: CUL 110, CUL 140, and CUL 170  
Corequisites: None

This course is designed to further students’ knowledge in basic cold food preparation techniques and pantry production. Topics include pâtés, terrines, galantines, decorative garnishing skills, carving, charcuterie, smoking, canapés, hors d’oeuvres, and related food items. Upon completion, students should be able to design, set up, and evaluate a catering/event display to include a cold buffet with appropriate showpieces.

### CUL 275 Catering Cuisine
Prerequisites: CUL 110, CUL 140 and CUL 240  
Corequisites: None

This course covers the sequential steps to successful catering that include sales, client needs, menu planning, purchasing, costing, event pricing, staffing and sanitation concerns. Emphasis is placed on new culinary competencies and skills specific to catering preparation, presentation, and customer service. Upon completion, students should be able to demonstrate proficiency in the successful design and execution of various types of catering events.

### CUL 280 Pastry & Confections
Prerequisites: CUL 110, CUL 140 and CUL 160  
Corequisites: None

This course includes confections and candy, chocolate techniques, transfer sheets, pulled and blown sugar, pastillage, marzipan and custom silicon molding. Emphasis is placed on showpieces, pre-set molding, stencil cutouts, pattern tracing and/or free-hand shaping. Upon completion, students should be able to design and produce centerpieces and showpieces.

### CUL 283 Farm-To-Table
Prerequisites: CUL 110 and CUL 140  
Corequisites: None

This course introduces students to the cooperation between sustainable farmers and foodservice operations. Emphasis is placed on environmental relationships, including how foods are grown, processed, and distributed, as well as related implications on quality and sustainability. Upon completion, students should be able to demonstrate an understanding of environmental stewardship and its impact on cuisine.

### CUL 285 Competition Fundamentals
Prerequisites: CUL 110, CUL 110A, CUL 140 or CUL 160  
Corequisites: None

This course provides practical experience in the planning, techniques, and procedures required for culinary competitions and exhibitions. Emphasis is placed on competition strategies including menu planning, teamwork, plate design, flavor profiles, recipe development, nutrition, advanced knife/culinary skills, professionalism, and portfolio development. Upon completion, students should be able to apply competition/exhibition skills and standards in the competition arena and professional kitchen.

### DBA 110 Database Concepts
Prerequisites: CIS 110 or CIS 111  
Corequisites: None

This course introduces database design and creation using a DBMS product. Emphasis is placed on data dictionaries, normalization, data integrity, data modeling, and creation of simple tables, queries, reports, and forms. Upon completion, students should be able to design and implement normalized database structures by creating simple database tables, queries, reports, and forms.

### DDF 211 Design Process I
Prerequisites: DFT 112, DFT 154, DFT 211, MEC 145  
Corequisites: None

This course emphasizes design processes for finished products. Topics include data collection from manuals and handbooks, efficient use of materials, design sketching, specifications, and vendor selection. Upon completion, students should be able to research and plan the design process for a finished product.

### DDF 212 Design Process II
Prerequisites: DDF 211 and MEC 111  
Corequisites: None

This course stresses the integration of various design practices. Emphasis is placed on the creation of an original design. Upon completion, students should be able to apply engineering graphics and design procedures to a design project.
### COURSE DESCRIPTIONS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEN 111</td>
<td>Introduction to DEAT</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Prerequisites:</td>
<td>None</td>
<td>Corequisites:</td>
<td>None</td>
<td></td>
<td></td>
</tr>
<tr>
<td>This course is an overview of the digital effects and animation technology field from the most simple processes to the most complex. Topics include digitizing existing images, creating digital images, manipulation of images and various forms of computer animation. Upon completion, students should be able to demonstrate a vocabulary of the digital effects and animation field and knowledge of outstanding examples of work in the field.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEN 100</td>
<td>Basic Orofacial Anatomy</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Prerequisites:</td>
<td>Enrollment in the Dental Assisting program</td>
<td>Corequisites:</td>
<td>DEN 101</td>
<td></td>
<td></td>
</tr>
<tr>
<td>This course provides a basic introduction to the structures of the head, neck, and oral cavity. Topics include tooth morphology, head and neck anatomy, histology, and embryology. Upon completion, students should be able to demonstrate knowledge of normal structures and development and how they relate to the practice of dental assisting. This is a diploma-level course.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEN 101</td>
<td>Preclinical Procedures</td>
<td>4</td>
<td>6</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>Prerequisites:</td>
<td>Enrollment in the Dental Assisting Program</td>
<td>Corequisites:</td>
<td>DEN 111</td>
<td></td>
<td></td>
</tr>
<tr>
<td>This course provides instruction in procedures for the clinical dental assistant as specified by the North Carolina Dental Practice Act. Emphasis is placed on orientation to the profession, infection control techniques, instruments, related expanded functions, and diagnostic, operative, and specialty procedures. Upon completion, students should be able to demonstrate proficiency in clinical dental assisting procedures.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEN 102</td>
<td>Dental Materials</td>
<td>3</td>
<td>4</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Prerequisites:</td>
<td>Enrollment in the Dental Assisting Program</td>
<td>Corequisites:</td>
<td>DEN 101</td>
<td></td>
<td></td>
</tr>
<tr>
<td>This course provides instruction in identification, properties, evaluation of quality, principles, and procedures related to manipulation and storage of operative and specialty dental materials. Emphasis is placed on the understanding and safe application of materials used in the dental office and laboratory. Upon completion, students should be able to demonstrate proficiency in the laboratory and clinical application of routinely used dental materials.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEN 103</td>
<td>Dental Sciences</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Prerequisites:</td>
<td>DEN 100</td>
<td>Corequisites:</td>
<td>DEN 106</td>
<td></td>
<td></td>
</tr>
<tr>
<td>This course is a study of oral pathology, pharmacology, and dental office emergencies. Topics include oral pathological conditions, dental therapeutics, and management of emergency situations. Upon completion, students should be able to recognize abnormal oral conditions, identify classifications, describe actions and effects of commonly prescribed drugs, and respond to medical emergencies.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEN 104</td>
<td>Dental Health Education</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Prerequisites:</td>
<td>DEN 101 and DEN 111</td>
<td>Corequisites:</td>
<td>DEN 106</td>
<td></td>
<td></td>
</tr>
<tr>
<td>This course covers the study of preventive dentistry to prepare dental assisting students for the role of dental health educator. Topics include etiology of dental diseases, preventive procedures, and patient education theory and practice. Upon completion, students should be able to demonstrate proficiency in patient counseling and oral health instruction in private practice or public health settings.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEN 105</td>
<td>Practice Management</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Prerequisites:</td>
<td>DEN 100</td>
<td>Corequisites:</td>
<td>DEN 106</td>
<td></td>
<td></td>
</tr>
<tr>
<td>This course provides a study of principles and procedures related to management of the dental practice. Emphasis is placed on maintaining clinical and financial records, patient scheduling, and supply and inventory control. Upon completion, students should be able to demonstrate proficiency in patient counseling and oral health instruction in private practice or public health settings.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEN 106</td>
<td>Clinical Practice I</td>
<td>1</td>
<td>0</td>
<td>12</td>
<td>5</td>
</tr>
<tr>
<td>Prerequisites:</td>
<td>DEN 101 and DEN 111</td>
<td>Corequisites:</td>
<td>DEN 103, DEN 104, and DEN 112</td>
<td></td>
<td></td>
</tr>
<tr>
<td>This course is designed to provide experience assisting in a clinical setting. Emphasis is placed on the application of principles and procedures of four-handed dentistry and laboratory and clinical support functions. Upon completion, students should be able to utilize classroom theory and laboratory and clinical skills in a dental setting.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEN 107</td>
<td>Clinical Practice II</td>
<td>1</td>
<td>0</td>
<td>12</td>
<td>5</td>
</tr>
<tr>
<td>Prerequisites:</td>
<td>DEN 106</td>
<td>Corequisites:</td>
<td>None</td>
<td></td>
<td></td>
</tr>
<tr>
<td>This course is designed to increase the level of proficiency in assisting in a clinical setting. Emphasis is placed on the application of principles and procedures of four-handed dentistry and laboratory and clinical support functions. Upon completion, students should be able to combine theoretical and ethical principles necessary to perform entry-level skills including functions delegable to a DA II.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEN 110</td>
<td>Orofacial Anatomy</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Prerequisites:</td>
<td>Enrollment in the Dental Assisting or Dental Hygiene program</td>
<td>Corequisites:</td>
<td>DEN 121</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| This course introduces the structures of the head, neck, and oral cavity. Topics include tooth morphology, head and neck anatomy, histology, and embryology. Upon completion, students should be able to relate the identification of normal
structures and development to the practice of dental assisting and dental hygiene. This course is intended for diploma and AAS degree programs.

DEN 111 Infection/Hazard Control  2 0 0 2
Prerequisites: Enrollment in the Dental Assisting or Dental Hygiene program
Corequisites: DEN 101 or DEN 121

This course introduces the infection and hazard control procedures necessary for the safe practice of dentistry. Topics include microbiology, practical infection control, sterilization and monitoring, chemical disinfectants, aseptic technique, infectious diseases, OSHA standards, and applicable North Carolina laws. Upon completion, students should be able to understand infectious diseases, disease transmission, infection control procedures, biohazard management, OSHA standards, and applicable North Carolina laws. This course is intended for diploma and AAS degree programs.

DEN 112 Dental Radiography  2 3 0 3
Prerequisites: Enrollment in the Dental Assisting or Dental Hygiene program
Corequisites: DEN 100 or DEN 110 and DEN 111

This course provides a comprehensive view of the principles and procedures of radiology as they apply to dentistry. Topics include techniques in exposing, processing, and evaluating radiographs, as well as radiation safety, quality assurance, and legal issues. Upon completion, students should be able to demonstrate proficiency in the production of diagnostically acceptable radiographs using appropriate safety precautions. This course is intended for diploma and AAS degree programs.

DEN 120 Dental Hygiene Preclinic Lec  2 0 0 2
Prerequisites: Enrollment in the Dental Hygiene program
Corequisites: DEN 121

This course introduces preoperative and clinical dental hygiene concepts. Emphasis is placed on the assessment phase of patient care as well as the theory of basic dental hygiene instrumentation. Upon completion, students should be able to collect and evaluate patient data at a basic level and demonstrate knowledge of dental hygiene instrumentation.

DEN 121 Dental Hygiene Precl Lab  0 6 0 2
Prerequisites: Enrollment in the Dental Hygiene program
Corequisites: DEN 110 and DEN 111 and DEN 120

This course provides the opportunity to perform clinical dental hygiene procedures discussed in DEN 120. Emphasis is placed on clinical skills in patient assessment and instrumentation techniques. Upon completion, students should be able to demonstrate the ability to perform specific preclinical procedures.

DEN 123 Nutrition/Dental Health  2 0 0 2
Prerequisites: Enrollment in the Dental Hygiene program
Corequisites: None

This course introduces basic principles of nutrition with emphasis on nutritional requirements and their application to individual patient needs. Topics include the study of the food pyramid, nutrient functions, Recommended Daily Allowances, and related psychological principles. Upon completion, students should be able to recommend and counsel individuals on their food intake as related to their dental health.

DEN 124 Periodontology  2 0 0 2
Prerequisites: DEN 110
Corequisites: None

This course provides an in-depth study of the periodontium, periodontal pathology, periodontal monitoring, and the principles of periodontal therapy. Topics include periodontal anatomy and a study of the etiology, classification, and treatment modalities of periodontal diseases. Upon completion, students should be able to describe, compare, and contrast techniques involved in periodontal/maintenance therapy, as well as patient care management.

DEN 125 Dental Office Emergencies  0 2 0 1
Prerequisites: Enrollment in the Dental Hygiene program
Corequisites: None

This course provides a study of the management of dental office emergencies. Topics include methods of prevention, necessary equipment/drugs, medicolegal considerations, recognition and effective initial management of a variety of emergencies. Upon completion, the student should be able to recognize, assess, and manage various dental office emergencies and activate advanced medical support when indicated.

DEN 130 Dental Hygiene Theory I  2 0 0 2
Prerequisites: DEN 120
Corequisites: DEN 131

This course is a continuation of the didactic dental hygiene concepts necessary for providing an oral prophylaxis. Topics include deposits/removal, instrument sharpening, patient education, fluorides, planning for dental hygiene treatment, charting, and clinical records and procedures. Upon completion, students should be able to demonstrate knowledge needed to complete a thorough oral prophylaxis.

DEN 131 Dental Hygiene Clinic I  0 0 9 3
Prerequisites: DEN 121
Corequisites: DEN 130

This course continues skill development in providing an oral prophylaxis. Emphasis is placed on treatment of the recall patients with gingivitis or light deposits. Upon completion, students should be able to assess these patients’ needs and complete the necessary dental hygiene treatment.
This course provides a general knowledge of oral pathological manifestations associated with selected systemic and oral diseases. Topics include developmental and degenerative diseases, selected microbial diseases, specific and nonspecific immune and inflammatory responses with emphasis on recognizing abnormalities. Upon completion, students should be able to differentiate between normal and abnormal tissues and refer unusual findings to the dentist for diagnosis.

DEN 223 Dental Pharmacology
Prerequisites: Enrollment in the Dental Hygiene program
Corequisites: BIO 168

This course provides basic drug terminology, general principles of drug actions, dosages, routes of administration, adverse reactions, and basic principles of anesthesiology. Emphasis is placed on knowledge of drugs in overall understanding of patient histories and health status. Upon completion, students should be able to recognize that each patient’s general health or drug usage may require modification of the treatment procedures.

DEN 224 Materials and Procedures
Prerequisites: DEN 111
Corequisites: None

This course introduces the physical properties of materials and related procedures used in dentistry. Topics include restorative and preventive materials, fabrication of casts and appliances, and chair side functions of the dental hygienist. Upon completion, students should be able to demonstrate proficiency in the laboratory and/or clinical application of routinely used dental materials and chair side functions.

DEN 230 Dental Hygiene Theory IV
Prerequisites: DEN 220
Corequisites: DEN 231

This course provides an opportunity to increase knowledge of the profession. Emphasis is placed on dental specialties and completion of a case presentation. Upon completion, students should be able to demonstrate knowledge of various disciplines of dentistry and principles of case presentations.

DEN 231 Dental Hygiene Clinic IV
Prerequisites: DEN 221
Corequisites: DEN 230

This course continues skill development in providing an oral prophylaxis. Emphasis is placed on periodontal maintenance and on treating patients with moderate to advanced/refractory periodontal disease. Upon completion, students should be able to assess these patients’ needs and complete the necessary dental hygiene treatment.

DEN 232 Community Dental Health
Prerequisites: Enrollment in the Dental Hygiene program
Corequisites: None

This course provides a study of the principles and methods used in assessing, planning, implementing, and evaluating community dental health programs. Topics include epidemiology, research methodology, biostatistics, preventive dental care, dental health education, program planning, and financing and utilization of dental services. Upon completion, students should be able to assess, plan, implement, and evaluate a community dental health program.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEN 233</td>
<td>Professional Development</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Prerequisites: Enrollment in the Dental Hygiene program</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>This course includes professional development, ethics, and jurisprudence with applications to practice management. Topics include conflict management, state laws, resumes, interviews, and legal liabilities as health care professionals. Upon completion, students should be able to demonstrate the ability to practice dental hygiene within established ethical standards and state laws.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DES 110</td>
<td>Architectural Graphics</td>
<td>0</td>
<td>6</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Prerequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corequisites: DES 125, DES 135 and DES 225</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>This course introduces basic drafting skills and techniques. Emphasis is placed on the use of drafting equipment, lettering, dimensioning, elevations, sections, construction details, and actual fixture sizes as related to interior design situations. Upon completion, students should be able to complete working drawings skillfully utilizing principles of drafting.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DES 111</td>
<td>Creative Problem Solving</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Prerequisites: DES 110, DES 125, and DES 135</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>This course is designed to improve conceptual abilities as applied to problems involved with creating practical furniture designs. Emphasis is placed on the awareness of creative thinking techniques that are involved with producing a workable design in an innovative fashion. Upon completion, students should be able to apply creative thinking techniques to find innovative solutions to furniture problems.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DES 115</td>
<td>Color Theory</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Prerequisites: DES 110, DES 125, DES 135, and DES 225</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>This course introduces the element of color as a major design factor. Emphasis is placed on the physical, psychological, and other implications of color in design. Upon completion, students should be able to demonstrate knowledge of color and its effects on the human environment.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DES 120</td>
<td>CAD for Interior Design</td>
<td>0</td>
<td>6</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Prerequisites: DES 110</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>This course introduces basic computer-aided design and drafting skills and techniques within interior design applications. Emphasis is placed on the most common computer commands used in architectural drafting and design to draw, edit, manipulate layers, and create reusable drawings. Upon completion, students should be able to use specific computer applications to complete drawings and plot/print.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DES 121</td>
<td>CAD for Int Des/Advanced</td>
<td>0</td>
<td>6</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Prerequisites: DES 120</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>This course provides advanced techniques in drafting on the computer and the applications of computer-aided design for various projects. Emphasis is placed on specific exercises that integrate and reinforce the presentation topics into a scaled drawing. Upon completion, students should be able to draw, transfer, and plot assigned floorplans in an efficient and accurate manner using the computer equipment and software provided.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DES 125</td>
<td>Graphic Presentation I</td>
<td>0</td>
<td>6</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Prerequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corequisites: DES 110, DES 135 and DES 225</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>This course introduces graphic presentation techniques for communicating ideas. Topics include drawing, perspective drawing, and wet and dry media. Upon completion, students should be able to produce a pictorial presentation.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DES 126</td>
<td>Graphic Presentation II</td>
<td>0</td>
<td>6</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Prerequisites: DES 125</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>This course provides a more in-depth study of graphic techniques. Topics include extensive wet and dry media experience and advanced measured perspective techniques. Upon completion, students should be able to illustrate interiors and other elements.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DES 135</td>
<td>Principles and Elements of Design I</td>
<td>2</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Prerequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corequisites: DES 110, DES 125 and DES 225</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>This course introduces the basic concepts and terminology of design as they relate to the design profession. Topics include line, pattern, space, mass, shape, texture, color, unity, variety, rhythm, emphasis, balance, proportion, scale, and function. Upon completion, students should be able to demonstrate an understanding of the principles covered through hands-on application.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DES 136</td>
<td>Prin &amp; Elem of Design II</td>
<td>2</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Prerequisites: DES 135</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>This course provides continued study of design principles introduced in DES 135. Emphasis is placed on color theory, pattern, and texture as used in interiors as well as an investigation of the psychology of color. Upon completion, students should be able to originate a color program for interiors.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## COURSE DESCRIPTIONS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit</th>
<th>Prerequisites</th>
<th>Corequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>DES 210</td>
<td>Bus Prac/Interior Design</td>
<td>2</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>This course introduces contemporary business practices for interior design. Topics include employment skills, business formations, professional associations, preparation of professional contracts and correspondence, and means of compensation. Upon completion, students should be able to describe the basic business formations and professional associations and compose effective letters and contracts.</td>
<td></td>
</tr>
<tr>
<td>DES 220</td>
<td>Principles of Interior Design</td>
<td>1</td>
<td>DES 110, DES 125, DES 135 and DES 225</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6</td>
<td>This course covers the basic principles of design as they relate specifically to interior design, furniture arrangement, wall composition, color, furnishings, collages, and illustration. Emphasis is placed on spatial relationships, craftsmanship, and visual presentation techniques. Upon completion, students should be able to arrange furnishings in rooms for various purposes, select furnishings and colors, and illustrate ideas graphically.</td>
<td></td>
</tr>
<tr>
<td>DES 225</td>
<td>Textiles/Fabrics</td>
<td>2</td>
<td>DES 110, DES 125, and DES 135</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2</td>
<td>This course includes the study of woven and non-woven fabrics for interiors. Topics include characteristics of fibers, yarns, weaving, felting, and knitting; processing of leather; and adorning and finishing of interior fabrics. Upon completion, students should be able to recognize and use correct terminology for upholstery, window treatments, and rugs/carpets with regard to flammability, performance, and durability.</td>
<td></td>
</tr>
<tr>
<td>DES 230</td>
<td>Residential Design I</td>
<td>1</td>
<td>DES 125, DES 136, and DES 220</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6</td>
<td>This course includes principles of interior design for various residential design solutions. Emphasis is placed on visual presentation and selection of appropriate styles to meet specifications. Upon completion, students should be able to complete scaled floorplans, elevations, specifications, color schemes and fabrics, and finishes and furniture selection.</td>
<td></td>
</tr>
<tr>
<td>DES 231</td>
<td>Residential Design II</td>
<td>1</td>
<td>DES 230</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6</td>
<td>This course provides advanced projects with a client profile that utilizes the skills developed in DES 230. Emphasis is placed on a total concept and the presentation of appropriate and creative design solutions. Upon completion, students should be able to complete a detailed floorplan, space planning, furniture plan, specifications, program schedules, finishes, and detailed window treatments.</td>
<td></td>
</tr>
<tr>
<td>DES 235</td>
<td>Products</td>
<td>2</td>
<td>DES 110, DES 135</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3</td>
<td>This course provides an overview of interior finishing materials and the selection of quality upholstery and case goods. Topics include hard and resilient floor coverings; wall coverings and finishes; ceilings, moldings, and furniture construction techniques; and other interior components. Upon completion, students should be able to recognize and use correct terminology, select appropriate materials for interior surfaces, and choose furniture based on sound construction.</td>
<td></td>
</tr>
<tr>
<td>DES 240</td>
<td>Commercial/Contract Design I</td>
<td>1</td>
<td>DES 220</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6</td>
<td>This course introduces commercial/contract design including retail, office, institutional, restaurant, and hospitality design. Emphasis is placed on ADA requirements, building codes and standards, space planning, and selection of appropriate materials for non-residential interiors. Upon completion, students should be able to analyze and design introductory non-residential projects using graphic presentation concepts.</td>
<td></td>
</tr>
<tr>
<td>DES 241</td>
<td>Commercial/Contract Design II</td>
<td>1</td>
<td>DES 240</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6</td>
<td>This course provides an in-depth study of non-residential design exploring more comprehensive design solutions such as health care facilities, furniture gallery design, and large office complexes. Emphasis is placed on design of commercial interiors and suitability of materials to meet ADA requirements, codes, and standards. Upon completion, students should be able to design non-residential spaces meeting ADA requirements and select furniture, materials, fabrics, and accessories meeting codes and flammability standards.</td>
<td></td>
</tr>
<tr>
<td>DES 255</td>
<td>History/Int &amp; Furn I</td>
<td>3</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0</td>
<td>This course covers interiors, exteriors, and furnishings from ancient Egypt through French Neo-Classicism. Emphasis is placed on vocabulary, chronology, and style recognition. Upon completion, students should be able to classify and date interior and exterior architecture and furnishings and be conversant with pertinent vocabulary.</td>
<td></td>
</tr>
<tr>
<td>DES 256</td>
<td>History/Int and Furn II</td>
<td>3</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>
|              |                                                   | 0      | This course covers English, American, and various styles of nineteenth- and twentieth-century furniture, interiors, and exteriors. Emphasis is placed on style recognition, vocabulary,
and chronology. Upon completion, students should be able to recognize and describe major styles of furniture, interiors, and exteriors.

<table>
<thead>
<tr>
<th>Course</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>DES 260 Materials Calc/Int Design</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Prerequisites: DES 225 and DES 235</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>This course includes the study of calculations for square footage, square yardage, and cut-length yardage. Emphasis is placed on the development of workable formulas, worksheets, and order forms that can be used in an interior design business. Upon completion, students should be able to produce electronic worksheets and order forms for calculating window treatments, wall coverings, and floor coverings for a given space.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>DES 265 Lighting/Interior Design</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Prerequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>This course introduces theory and contemporary concepts in lighting. Topics include light levels, light quality, lamps and fixtures, and their use in interior design. Upon completion, students should be able to determine light levels and requirements based on national standards and select luminaries for specific light qualities.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>DES 285 Capstone/Interior Design</td>
<td>2</td>
<td>6</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Prerequisites: DES 210, DES 230, and DES 240</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>This course provides additional studio time to investigate areas of special interest, upgrade weaknesses, and/or capitalize on strengths. Topics include a broad range of options, both residential and non-residential, combining individual research and instructional guidance. Upon completion, students should be able to complete the graphics, client folder, and all schedules for a professional project.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>DFT 100 Marine Drafting</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Prerequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corequisites: BTB 101</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>This course introduces blueprint reading, sketching, marine drafting equipment, and the lines plan. Topics include utilization of mechanical drafting tools, blueprint lines, pictorial sketching, blueprint reading, and manually drawing plans for boats from tables of offsets. Upon completion, students should be able to create pictorial sketches, make materials lists from blueprints, expand transoms, and demonstrate an understanding of lines plans.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>DFT 110 Technical Drafting I</td>
<td>1</td>
<td>3</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Prerequisites: A grade of “C” or better in MAT 060 or successful completion of DMA 010, DMA 020, and DMA 030</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corequisites: DFT 111A, DFT 151</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>This course introduces basic drafting skills, equipment, and applications. Topics include sketching, measurements, lettering, dimensioning, geometric construction, orthographic projections and pictorials drawings, sections, and auxiliary views. Upon completion, students should be able to understand and apply basic drawing principles and practices.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>DFT 111A Technical Drafting I Lab</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Prerequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corequisites: DFT 111</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>This course provides a laboratory setting to enhance basic drafting skills. Emphasis is placed on practical experiences that enhance the topics presented in DFT 111. Upon completion, students should be able to apply the laboratory experiences to the concepts presented in DFT 111.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>DFT 112 Technical Drafting II</td>
<td>1</td>
<td>3</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Prerequisites: DFT 111, DFT 151</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corequisites: DFT 112A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>This course provides for advanced drafting practices and procedures. Topics include detailed working drawings, hardware, fits and tolerances, assembly and sub-assembly, geometric dimensioning and tolerancing, intersections, and developments. Upon completion, students should be able to produce detailed working drawings.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>DFT 112A Technical Drafting II Lab</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Prerequisites: DFT 111, DFT 151</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corequisites: DFT 112</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>This course provides a laboratory setting to enhance advanced drafting skills. Emphasis is placed on practical experiences that enhance the topics presented in DFT 112. Upon completion, students should be able to apply the laboratory experiences to the concepts presented in DFT 112.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>DFT 119 Basic CAD</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Prerequisites: MAC 132</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>This course introduces computer-aided drafting software for specific technologies to non-drafting majors. Emphasis is placed on understanding the software command structure and drafting standards for specific technical fields. Upon completion, students should be able to create and plot basic drawings.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
DFT 151 CAD I  2 3 0 3
Prerequisites: A grade of "C" or better in MAT 060 or successful completion of DMA 010, DMA 020, and DMA 030
Corequisites: None

This course introduces CAD software as a drawing tool. Topics include drawing, editing, file management, and plotting. Upon completion, students should be able to produce and plot a CAD drawing.

DFT 152 CAD II  2 3 0 3
Prerequisites: DFT 151
Corequisites: None

This course introduces extended CAD applications. Emphasis is placed upon intermediate applications of CAD skills. Upon completion, students should be able to use extended CAD applications to generate and manage drawings.

DFT 154 Intro Solid Model/Rendering  2 3 0 3
Prerequisites: DFT 111
Corequisites: None

This course covers basic principles of three-dimensional CAD wireframe and surface models. Topics include user coordinate systems, three-dimensional viewpoints, three-dimensional wireframes, and surface components and viewpoints. Upon completion, students should be able to create and manipulate three-dimensional wireframe and surface models.

DFT 211 Gears, Cams, & Pulleys  1 3 0 2
Prerequisites: DFT 111 and MAT 121, MAT 161, MAT 171, or MAT 175
Corequisites: None

This course introduces the principles of motion transfer. Topics include gears, cams, pulleys, and drive components. Upon completion, students should be able to solve problems and produce drawings dealing with ratios.

DFT 221 Electrical Drafting  2 6 0 4
Prerequisites: DFT 111 and DFT 151
Corequisites: None

This course covers the practices used for making electrical drawings. Emphasis is placed on symbol identification and various types of electrical diagrams. Upon completion, students should be able to properly utilize electrical symbols in the construction of various electrical diagrams.

DFT 231 Jig and Fixture Design  1 2 0 2
Prerequisites: DFT 112 and DFT 154
Corequisites: None

This course introduces the study of jigs and fixtures. Topics include different types, components, and uses of jigs and fixtures. Upon completion, students should be able to analyze, design, and complete a set of working drawings for a jig or fixture.

DFT 254 Interim Solid Model/Render  2 3 0 3
Prerequisites: DFT 154
Corequisites: None

This course presents a continuation of basic three-dimensional solid modeling and design software. Topics include advanced study of parametric design, creation, editing, rendering and analysis of solid model assemblies, and multiview drawing generation. Upon completion, students should be able to use parametric design techniques to create and analyze the engineering design properties of a model assembly.

DMA 010 Operations With Integers  .75 .50 0 1
Prerequisites: None
Corequisites: None

This course provides a conceptual study of integers and integer operations. Topics include integers, absolute value, exponents, square roots, perimeter and area of basic geometric figures, Pythagorean theorem, and use of the correct order of operations. Upon completion, students should be able to demonstrate an understanding of pertinent concepts and principles and apply this knowledge in the evaluation of expressions.

DMA 020 Fractions and Decimals  .75 .50 0 1
Prerequisites: DMA 010
Corequisites: None

This course provides a conceptual study of the relationship between fractions and decimals and covers related problems. Topics include application of operations and solving contextual application problems, including determining the circumference and area of circles with the concept of pi. Upon completion, students should be able to demonstrate an understanding of the connections between fractions and decimals.

DMA 030 Propor/Ratio/Rate/Percent  .75 .50 0 1
Prerequisites: DMA 010 and DMA 020
Corequisites: None

This course provides a conceptual study of the problems that are represented by rates, ratios, percent, and proportions. Topics include rates, ratios, percent, proportion, conversion of English and metric units, and applications of the geometry of similar triangles. Upon completion, students should be able to use their understanding to solve conceptual application problems.

DMA 040 Express/Lin Equat/Inequal  .75 .50 0 1
Prerequisites: DMA 010 and DMA 020 and DMA 030
Corequisites: None

This course provides a conceptual study of problems involving linear expressions, equations, and inequalities. Emphasis is placed on solving contextual application problems. Upon completion, students should be able to distinguish between simplifying expressions and solving equations and apply this
### DMA 050 Graphs/Equations of Lines
Prerequisites: DMA 010 and DMA 020 and DMA 030 and DMA 040
Corequisites: None

This course provides a conceptual study of problems involving graphic and algebraic representations of lines. Topics include slope, equations of lines, interpretation of basic graphs, and linear modeling. Upon completion, students should be able to solve contextual application problems and represent real-world situations as linear equations in two variables.

<table>
<thead>
<tr>
<th>Credit</th>
<th>Lab</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>.75</td>
<td>.50</td>
<td>0</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### DMA 060 Polynomials/Quadratic Appl
Prerequisites: DMA 010 and DMA 020 and DMA 030 and DMA 040 and DMA 050
Corequisites: None

This course provides a conceptual study of problems involving graphic and algebraic representations of quadratics. Topics include basic polynomial operations, factoring polynomials, and solving polynomial equations by means of factoring. Upon completion, students should be able to find algebraic solutions to contextual problems with quadratic applications.

<table>
<thead>
<tr>
<th>Credit</th>
<th>Lab</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>.75</td>
<td>.50</td>
<td>0</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### DMA 070 Rational Express/Equation
Prerequisites: DMA 010 and DMA 020 and DMA 030 and DMA 040 and DMA 050 and DMA 060
Corequisites: None

This course provides a conceptual study of problems involving graphic and algebraic representations of rational equations. Topics include simplifying and performing operations with rational expressions and equations, understanding the domain, and determining the reasonableness of an answer. Upon completion, students should be able to find algebraic solutions to contextual problems with rational applications.

<table>
<thead>
<tr>
<th>Credit</th>
<th>Lab</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>.75</td>
<td>.50</td>
<td>0</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### DRA 111 Theatre Appreciation
Prerequisites: None
Corequisites: None

This course provides a study of the art, craft, and business of the theatre. Emphasis is placed on the audience’s appreciation of the work of the playwright, director, actor, designer, producer, and critic. Upon completion, students should be able to demonstrate a vocabulary of theatre terms and to recognize the contributions of various theatre artists. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. This course may meet the SACS humanities/fine arts requirement for AA, AS, AFA, AGE, AAS, DIP, or CER degree programs.

<table>
<thead>
<tr>
<th>Credit</th>
<th>Lab</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### DRA 120 Voice for Performance
Prerequisites: None
Corequisites: None

This course provides guided practice in the proper production of speech for the theatre. Emphasis is placed on improving speech, including breathing, articulation, pronunciation, and other vocal variables. Upon completion, students should be able to demonstrate effective theatrical speech. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement. This course may meet the SACS humanities/fine arts requirement for AGE, AAS, DIP, or CER degree programs.

<table>
<thead>
<tr>
<th>Credit</th>
<th>Lab</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### DRA 122 Oral Interpretation
Prerequisites: Proficiency in Reading - A grade of “C” or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading
Corequisites: None

This course introduces the dramatistic study of literature through performance. Emphasis is placed on analysis and performance of poetry, drama, and prose fiction. Upon completion, students should be able to embody and discuss critically the speakers inherent in literature. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement. This course may meet the SACS humanities/fine arts requirement for AA, AS, AFA, AGE, AAS, DIP, or CER degree programs.

<table>
<thead>
<tr>
<th>Credit</th>
<th>Lab</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### DRA 126 Storytelling
Prerequisites: None
Corequisites: None

This course introduces the art of storytelling and the oral traditions of folk literature. Topics include the history of storytelling, its value and purpose, techniques of the storyteller, and methods of collecting verbal art. Upon completion, students should be able to present and discuss critically stories from the world’s repertory of traditional lore. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement. This course may meet the SACS humanities/fine arts requirement for AA, AS, AFA, AGE, AAS, DIP, or CER degree programs.

<table>
<thead>
<tr>
<th>Credit</th>
<th>Lab</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### COURSE DESCRIPTIONS

<table>
<thead>
<tr>
<th>-course code</th>
<th>course title</th>
<th>prerequisites</th>
<th>corequisites</th>
<th>credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRA 128</td>
<td>Children’s Theatre</td>
<td>None</td>
<td>None</td>
<td>3</td>
</tr>
<tr>
<td>DRA 130</td>
<td>Acting I</td>
<td>None</td>
<td>None</td>
<td>3</td>
</tr>
<tr>
<td>DRA 131</td>
<td>Acting II</td>
<td>DRA 130</td>
<td>None</td>
<td>3</td>
</tr>
<tr>
<td>DRA 135</td>
<td>Acting for the Camera I</td>
<td>None</td>
<td>None</td>
<td>3</td>
</tr>
<tr>
<td>DRA 136</td>
<td>Acting for the Camera II</td>
<td>DRA 135</td>
<td>None</td>
<td>3</td>
</tr>
<tr>
<td>DRA 139</td>
<td>Stagecraft I</td>
<td>None</td>
<td>None</td>
<td>3</td>
</tr>
<tr>
<td>DRA 140</td>
<td>Stagecraft II</td>
<td>DRA 140</td>
<td>None</td>
<td>3</td>
</tr>
<tr>
<td>DRA 142</td>
<td>Costuming</td>
<td>None</td>
<td>None</td>
<td>3</td>
</tr>
<tr>
<td>DRA 145</td>
<td>Stage Make-up</td>
<td>None</td>
<td>None</td>
<td>2</td>
</tr>
</tbody>
</table>

This course introduces the philosophy and practice involved in producing plays for young audiences. Topics include the selection of age-appropriate scripts and the special demands placed on directors, actors, designers, and educators in meeting the needs of young audiences. Upon completion, students should be able to present and critically discuss productions for children. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement. This course may meet the SACS humanities/fine arts requirement for AGE, AAS, DIP, or CER programs.

This course provides an applied study of the actor’s craft. Topics include role analysis, training the voice, and body concentration, discipline, and self-evaluation. Upon completion, students should be able to explore their creativity in an acting ensemble. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement. This course may meet the SACS humanities/fine arts requirement for AGE, AAS, DIP, or CER programs.

This course provides additional hands-on practice in the actor’s craft. Emphasis is placed on further analysis, characterization, and application of stage make-up, prosthetics, wigs, and hairpieces. Emphasis is placed on the development of make-up, prosthetics, wigs, and hairpieces. Emphasis is placed on more advanced camera acting theories, auditioning techniques, daytime drama, feature film, and print advertisement performance styles. Upon completion, students should be able to explore their creativity in on-camera performance. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

This course covers the techniques of costume construction and crafts processes. Emphasis is placed on learning costume techniques, using equipment and materials, and finishing production-appropriate costumes. Upon completion, students should be able to demonstrate an understanding of pattern drafting, construction techniques, and costume fitting procedures. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

This course covers the research, design, selection of materials, and application of stage make-up, prosthetics, wigs, and hairpieces. Emphasis is placed on the development of techniques, style, and presentation of the finished make-up. Upon completion, students should be able to create and apply make-up, prosthetics, and hairpieces. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.
This course provides an introduction to the analysis of sound equipment technology and its operation and uses on stage. Emphasis is placed on assessing sound needs and on installing, running, and maintaining equipment. Upon completion, students should be able to demonstrate skills as a sound environment designer and technician. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

**DRA 170 Play Production I**

**Prerequisites:** None  
**Corequisites:** None

This course provides an applied laboratory study of the processes involved in the production of a play. Topics include fundamental practices, principles, and techniques associated with producing plays of various periods and styles. Upon completion, students should be able to participate in an assigned position with a college theatre production. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

**DRA 171 Play Production II**

**Prerequisites:** DRA 170  
**Corequisites:** None

This course provides an applied laboratory study of the processes involved in the production of a play. Topics include fundamental practices, principles, and techniques associated with producing plays of various periods and styles. Upon completion, students should be able to participate in an assigned position with a college theatre production. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

**DRA 175 Teleplay Production I**

**Prerequisites:** None  
**Corequisites:** None

This course provides an applied laboratory study of the processes involved in production of a dramatic television program. Emphasis is placed on the fundamental practices, principles, and techniques associated with producing dramatic television programming. Upon completion, students should be able to participate in an assigned position with a college sit-com television production. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

**DRA 176 Teleplay Production II**

**Prerequisites:** DRA 175  
**Corequisites:** None

This course provides an applied laboratory study of the processes involved in production of a sit-com television program. Emphasis is placed on the fundamental practices, principles, and techniques associated with producing sit-com television programming. Upon completion, students should be able to participate in an assigned position with a college sit-com television production. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

**DRA 211 Theatre History I**

**Prerequisites:** Proficiency in Reading - A grade of “C” or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading  
**Corequisites:** None

This course covers the development of theatre from its origin to the closing of the British theatre in 1642. Topics include the history, aesthetics, and representative dramatic literature of the period. Upon completion, students should be able to trace the evolution of theatre and recognize the styles and types of world drama. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. This course may meet the SACS humanities/fine arts requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.

**DRA 212 Theatre History II**

**Prerequisites:** Proficiency in Reading - A grade of “C” or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading  
**Corequisites:** None

This course covers the development of theatre from 1660 through the diverse influences which shaped the theatre of the twentieth century. Topics include the history, aesthetics, and representative dramatic literature of the period. Upon completion, students should be able to trace the evolution of theatre and recognize the styles and types of world drama. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. This course may meet the SACS humanities/fine arts requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.

**DRA 230 Acting III**

**Prerequisites:** DRA 131  
**Corequisites:** None

This course is designed to include an exploration of acting styles. Emphasis is placed on putting the actor’s skills to work in a major theatrical form-musical, comedy, or drama. Upon completion, students should be able to explore their creativity in an acting ensemble. This course has been approved to satisfy
**COURSE DESCRIPTIONS**

<table>
<thead>
<tr>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
</table>

- **DRA 231 Acting IV**
  - Prerequisites: DRA 230
  - Corequisites: None
  - This course is designed to include further exploration of acting styles. Emphasis is placed on putting the actor’s skills to work in a major theatrical form-musical, comedy, or drama. Upon completion, students should be able to explore their creativity in an acting ensemble. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

- **DRA 240 Lighting for the Theatre**
  - Prerequisites: None
  - Corequisites: None
  - This course is an applied study of theatre lighting and is designed to train theatre technicians. Emphasis is placed on lighting technology including the mechanics of lighting and light control equipment by practical work with lighting equipment. Upon completion, students should be able to demonstrate competence with lighting equipment. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

- **DRA 260 Directing**
  - Prerequisites: DRA 130
  - Corequisites: DRA 140
  - This course provides an analysis and application of the techniques of theatrical directing. Topics include script selection, analysis, casting, rehearsal planning, blocking, stage business, tempo, and technical considerations. Upon completion, students should be able to plan, execute, and critically discuss a student-directed production. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

- **DRA 270 Play Production III**
  - Prerequisites: DRA 171
  - Corequisites: None
  - This course provides an applied laboratory study of the processes involved in the production of a play. Topics include fundamental practices, principles, and techniques associated with producing plays of various periods and styles. Upon completion, students should be able to participate in an assigned position with a college theatre production. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

- **DRA 271 Play Production IV**
  - Prerequisites: DRA 270
  - Corequisites: None
  - This course provides an applied laboratory study of the processes involved in the production of a play. Topics include fundamental practices, principles, and techniques associated with producing plays of various periods and styles. Upon completion, students should be able to participate in an assigned position with a college theatre production. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

- **DRA 275 Teleplay Production III**
  - Prerequisites: DRA 176
  - Corequisites: None
  - This course provides an applied laboratory study of the processes involved in production of an action television program. Emphasis is placed on the fundamental practices, principles, and techniques associated with producing action television programming. Upon completion, students should be able to participate in an assigned position with a college action television production. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

- **DRA 276 Teleplay Production IV**
  - Prerequisites: DRA 176
  - Corequisites: None
  - This course provides an applied laboratory study of the processes involved in production of a variety television program. Emphasis is placed on the fundamental practices, principles, and techniques associated with producing variety television programming. Upon completion, students should be able to participate in an assigned position with a college variety television production. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

- **ECO 151 Survey of Economics**
  - Prerequisites: Proficiency in Reading - A grade of “C” or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading
  - Corequisites: None
  - This course introduces basic concepts of micro- and macroeconomics. Topics include supply and demand, optimizing economic behavior, prices and wages, money, interest rates, banking system, unemployment, inflation, taxes, government spending, and international trade. Upon completion, students should be able to explain alternative solutions for economic problems faced by private and government sectors. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences. This course may meet the SACS social/behavioral science requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.*
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ECO 251 Prin of Microeconomics</strong></td>
<td>3 0 0 3</td>
<td></td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Prerequisites:</td>
<td>Proficiency in Reading - A grade of “C” or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corequisites:</td>
<td>None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This course introduces economic analysis of individual, business, and industry choices in the market economy. Topics include the price mechanism, supply and demand, optimizing economic behavior, costs and revenue, market structures, factor markets, income distribution, market failure, and government intervention. Upon completion, students should be able to identify and evaluate consumer and business alternatives in order to efficiently achieve economic objectives. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences. This course may meet the SACS social/behavioral science requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ECO 252 Prin of Macroeconomics</strong></td>
<td>3 0 0 3</td>
<td></td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Prerequisites:</td>
<td>Proficiency in Reading - A grade of “C” or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corequisites:</td>
<td>None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This course introduces economic analysis of aggregate employment, income, and prices. Topics include major schools of economic thought; aggregate supply and demand; economic measures, fluctuations, and growth; money and banking; stabilization techniques; and international trade. Upon completion, students should be able to evaluate national economic components, conditions, and alternatives for achieving socioeconomic goals. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences. This course may meet the SACS social/behavioral science requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EDU 114 Intro to Family Childcare</strong></td>
<td>3 0 0 3</td>
<td></td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Prerequisites:</td>
<td>Proficiency in Reading and Writing and Arithmetic Skills - a. A grade of “C” or better in ENG 085 or grade of “C” or better in ENG 080 and RED 080 or minimum Accuplacer scores of 57 on Reading and 66 on Writing b. A grade of “C” or better in MAT 060 or successful completion of DMA 010, DMA 020, and DMA 030</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corequisites:</td>
<td>None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This course introduces the student to family child care home environments with emphasis on standards and developmentally effective approaches for supporting diverse children and families. Topics include standards for quality, curriculum for multiple age groups, authentic assessment methods, business practices, building positive family and community partnerships, and professionalism. Upon completion, students should be able to design a family child care handbook that reflects a healthy, respectful, supportive, and stimulating learning environment.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EDU 119 Intro to Early Child Educ</strong></td>
<td>4 0 0 4</td>
<td></td>
<td></td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Prerequisites:</td>
<td>None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corequisites:</td>
<td>None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This course covers the foundations of the education profession, the diverse educational settings for young children, professionalism and planning developmentally appropriate programs for all children. Topics include historical foundations, program types, career options, professionalism and creating inclusive environments and curriculum responsive to the needs of all children and families. Upon completion, students should be able to design career plans and develop schedules, environments and activity plans appropriate for all children.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EDU 131 Child, Family, &amp; Commun</strong></td>
<td>3 0 0 3</td>
<td></td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Prerequisites:</td>
<td>a. Proficiency in Reading and Writing - A grade of “C” or better in ENG 085 or grade of “C” or better in ENG 080 and RED 080 or minimum Accuplacer scores of 57 on Reading and 66 on Writing b. EDU 119</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corequisites:</td>
<td>None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This course covers the development of partnerships between culturally and linguistically diverse families, children, schools and communities. Emphasis is placed on developing skills and identifying benefits for establishing, supporting, and maintaining respect, collaborative relationships between diverse families, programs/schools, and community agencies/resources. Upon completion, students should be able to explain appropriate relationships between families, educators, and professionals that enhance development and educational experiences of all children.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EDU 144 Child Development I</strong></td>
<td>3 0 0 3</td>
<td></td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Prerequisites:</td>
<td>a. Proficiency in Reading and Writing - A grade of “C” or better in ENG 085 or grade of “C” or better in ENG 080 and RED 080 or minimum Accuplacer scores of 57 on Reading and 66 on Writing b. PSY 150 c. EDU 119</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corequisites:</td>
<td>None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This course includes the theories of child development, needs, milestones, and factors that influence development, from conception through approximately 36 months. Emphasis is placed on developmental sequences in physical/motor, emotional/social, cognitive, and language domains and the impact of multiple influences on development and learning. Upon completion, students should be able to compare/contrast typical/atypical developmental characteristics, explain environmental factors that impact development, and identify strategies for enhancing development.
COURSE DESCRIPTIONS

EDU 145 Child Development II 3 0 0 3
Prerequisites: a. Proficiency in Reading and Writing - A grade of “C” or better in ENG 085 or grade of “C” or better in ENG 080 and RED 080 or minimum Accuplacer scores of 57 on Reading and 66 on Writing
b. PSY 150
c. EDU 119
Corequisites: None

This course includes the theories of child development, needs, milestones, and factors that influence development, from preschool through middle childhood. Emphasis is placed on developmental sequences in physical/motor, emotional/social, cognitive, and language domains and the impact of multiple influences on development and learning. Upon completion, students should be able to compare/contrast typical/atypical developmental characteristics, explain environmental factors that impact development, and identify strategies for enhancing development.

EDU 146 Child Guidance 3 0 0 3
Prerequisites: a. Proficiency in Reading and Writing - A grade of “C” or better in ENG 085 or grade of “C” or better in ENG 080 and RED 080 or minimum Accuplacer scores of 57 on Reading and 66 on Writing
b. PSY 150
c. EDU 119
Corequisites: None

This course introduces principles and practical techniques including the design of learning environments for providing developmentally appropriate guidance for all children, including those at risk. Emphasis is placed on observation skills, cultural influences, underlying causes of behavior, appropriate expectations, development of self control and the role of communication and guidance. Upon completion, students should be able to demonstrate direct/indirect strategies for preventing problem behaviors, teaching appropriate/acceptable behaviors, negotiation, setting limits and recognizing at risk behaviors.

EDU 151 Creative Activities 3 0 0 3
Prerequisites: a. Proficiency in Reading and Writing - A grade of “C” or better in ENG 085 or grade of “C” or better in ENG 080 and RED 080 or minimum Accuplacer scores of 57 on Reading and 66 on Writing
b. PSY 150
c. EDU 119
Corequisites: EDU 151A

This course covers planning, creation and adaptation of developmentally supportive learning environments with attention to curriculum, interactions, teaching practices and learning materials. Emphasis is placed on creating and adapting integrated, meaningful, challenging and engaging developmentally supportive learning experiences in art, music, movement and dramatics for all children. Upon completion, students should be able to create, adapt, implement and evaluate developmentally supportive learning materials, experiences and environments.

EDU 151A Creative Activities Lab 0 2 0 1
Prerequisites: Proficiency in Reading and Writing - A grade of “C” or better in ENG 085 or grade of “C” or better in ENG 080 and RED 080 or minimum Accuplacer scores of 57 on Reading and 66 on Writing
Corequisites: EDU 151

This course provides a laboratory component to complement EDU 151. Emphasis is placed on practical experiences that enhance concepts introduced in the classroom. Upon completion, students should be able to demonstrate a practical understanding of the development and implementation of appropriate creative activities.

EDU 153 Health, Safety & Nutrit 3 0 0 3
Prerequisites: a. Proficiency in Reading and Writing - A grade of “C” or better in ENG 085 or grade of “C” or better in ENG 080 and RED 080 or minimum Accuplacer scores of 57 on Reading and 66 on Writing
b. EDU 119
Corequisites: None

This course covers promoting and maintaining the health and well-being of all children. Topics include health and nutritional guidelines, common childhood illnesses, maintaining safe and healthy learning environments, recognition and reporting of abuse and neglect and state regulations. Upon completion, students should be able to demonstrate knowledge of health, safety, and nutritional needs, safe learning environments, and adhere to state regulations.

EDU 188 Issues in Early Child Ed 2 0 0 2
Prerequisites: a. Proficiency in Reading and Writing - A grade of “C” or better in ENG 085 or grade of “C” or better in ENG 080 and RED 080 or minimum Accuplacer scores of 57 on Reading and 66 on Writing
b. EDU 119
Corequisites: None

This course covers topics and issues in early childhood education. Emphasis is placed on current advocacy issues, emerging technology, professional growth experiences, and other related topics. Upon completion, students should be able to list, discuss, and explain current topics and issues in early childhood education.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Prerequisites</th>
<th>Corequisites</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDU 216</td>
<td>Foundations of Education</td>
<td>Proficiency in Reading and Writing - A grade of “C” or better in ENG 095 or grade of “C” or better in ENG 090 and RED 090 or minimum Accuplacer scores of 80 on Reading and 86 on Writing</td>
<td>ENG 111</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EDU 221</td>
<td>Children with Exceptional Needs</td>
<td>a. Proficiency in Reading and Writing - A grade of “C” or better in ENG 095 or grade of “C” or better in ENG 090 and RED 090 or minimum Accuplacer scores of 80 on Reading and 86 on Writing</td>
<td>None</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>b. EDU 144 and EDU 145 or PSY 244 and PSY 245</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>c. EDU 119</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EDU 234</td>
<td>Infants, Toddlers, &amp; Twos</td>
<td>a. Proficiency in Reading and Writing - A grade of “C” or better in ENG 095 or grade of “C” or better in ENG 090 and RED 090 or minimum Accuplacer scores of 80 on Reading and 86 on Writing</td>
<td>EDU 234A</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>b. EDU 119 and EDU 144</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EDU 234A</td>
<td>Infants/Toddlers/Twos Lab</td>
<td>a. Proficiency in Reading and Writing - A grade of “C” or better in ENG 095 or grade of “C” or better in ENG 090 and RED 090 or minimum Accuplacer scores of 80 on Reading and 86 on Writing</td>
<td>EDU 234</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>b. EDU 119 and EDU 144</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EDU 251A</td>
<td>Exploration Activities</td>
<td>a. Proficiency in Reading and Writing - A grade of “C” or better in ENG 095 or grade of “C” or better in ENG 090 and RED 090 or minimum Accuplacer scores of 80 on Reading and 86 on Writing</td>
<td>EDU 251A</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>b. EDU 119</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This course introduces the American educational system and the teaching profession. Topics include historical and philosophical foundations of education, contemporary educational, structural, legal, and financial issues, and experiences in public school classrooms. Upon completion, students should be able to relate classroom observations to the roles of teachers and schools and the process of teacher education. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement at select institutions only.

This course covers discovery experiences in science, math, and social studies. Emphasis is placed on developing concepts for each area and encouraging young children to explore, discover, and construct concepts. Upon completion, students should be able to discuss the discovery approach to teaching, explain major concepts in each area, and plan appropriate experiences for children.
EDU 251A Exploration Act Lab
Prerequisites: a. Proficiency in Reading and Writing - A grade of “C” or better in ENG 095 or grade of “C” or better in ENG 090 and RED 090 or minimum Accuplacer scores of 80 on Reading and 86 on Writing
b. EDU 119
Corequisites: EDU 251

This course provides a laboratory component to complement EDU 251. Emphasis is placed on practical experiences that enhance concepts introduced in the classroom. Upon completion, students should be able to demonstrate a practical understanding of the development and implementation of appropriate science, math, and social studies activities for children.

EDU 259 Curriculum Planning
Prerequisites: a. Proficiency in Reading and Writing - A grade of “C” or better in ENG 095 or grade of “C” or better in ENG 090 and RED 090 or minimum Accuplacer scores of 80 on Reading and 86 on Writing
b. EDU 119 and EDU 151 and EDU 151A or EDU 251 and EDU 251A or EDU 280 and EDU 280A
Corequisites: None

This course is designed to focus on curriculum planning for three to five year olds. Topics include philosophy, curriculum models, indoor and outdoor environments, scheduling, authentic assessment, and planning developmentally appropriate experiences. Upon completion, students should be able to evaluate children’s development, critique curriculum, plan for individual and group needs, and assess and create quality environments.

EDU 261 Early Childhood Admin I
Prerequisites: Proficiency in Reading and Writing - A grade of “C” or better in ENG 095 or grade of “C” or better in ENG 090 and RED 090 or minimum Accuplacer scores of 80 on Reading and 86 on Writing
Corequisites: EDU 119

This course introduces principles of basic programming and staffing, budgeting/financial management and marketing, and rules and regulations of diverse early childhood programs. Topics include program structure and philosophy, standards of NC child care programs, finance, funding resources, and staff and organizational management. Upon completion, students should be able to develop components of program/personnel handbooks, a program budget, and demonstrate knowledge of fundamental marketing strategies and NC standards.

EDU 262 Early Childhood Admin II
Prerequisites: a. Proficiency in Reading and Writing - A grade of “C” or better in ENG 095 or grade of “C” or better in ENG 090 and RED 090 or minimum Accuplacer scores of 80 on Reading and 86 on Writing
b. EDU 261
Corequisites: EDU 119

This course focuses on advocacy/leadership, public relations/community outreach and program quality/evaluation for diverse early childhood programs. Topics include program evaluation/accreditation, involvement in early childhood professional organizations, leadership/mentoring, family, volunteer and community involvement and early childhood advocacy. Upon completion, students should be able to define and evaluate all components of early childhood programs, develop strategies for advocacy and integrate community into programs.

EDU 263 School-Age Program Admin
Prerequisites: a. Proficiency in Reading and Writing - A grade of “C” or better in ENG 095 or grade of “C” or better in ENG 090 and RED 090 or minimum Accuplacer scores of 80 on Reading and 86 on Writing
b. EDU 119
Corequisites: None

This course introduces the methods and procedures for development and administration of school-age programs in the public or proprietary setting. Emphasis is placed on the construction and organization of the physical environment. Upon completion, students should be able to plan, develop and administer a quality school-age program.

EDU 271 Educational Technology
Prerequisites: a. Proficiency in Reading and Writing - A grade of “C” or better in ENG 095 or grade of “C” or better in ENG 090 and RED 090 or minimum Accuplacer scores of 80 on Reading and 86 on Writing
b. CIS 110 or CIS 111
c. EDU 119
Corequisites: None

This course introduces the use of technology to enhance teaching and learning in all educational settings. Topics include technology concepts, instructional strategies, materials and adaptive technology for children with exceptionalities, facilitation of assessment/evaluation, and ethical issues surrounding the use of technology. Upon completion, students should be able to apply technology enhanced instructional strategies, use a variety of technology resources and demonstrate appropriate technology skills in educational environments.
**EDU 280 Language & Literacy Exp**  3 0 0 3  
Prerequisites:  a. Proficiency in Reading and Writing - A grade of “C” or better in ENG 095 or grade of “C” or better in ENG 090 and RED 090 or minimum Accuplacer scores of 80 on Reading and 86 on Writing  
b. EDU 119  
Corequisites: EDU 280A  

This course is designed to expand students' understanding of children’s language and literacy development and provides strategies for enhancing language/literacy experiences in an enriched environment. Topics include selection of diverse literature and interactive media, the integration of literacy concepts throughout the curriculum, appropriate observations/assessments and inclusive practices. Upon completion, students should be able to select, plan, implement and evaluate developmentally appropriate and diverse language/literacy experiences.

**EDU 280A Literacy Exp Lab**  0 2 0 1  
Prerequisites:  a. Proficiency in Reading and Writing - A grade of “C” or better in ENG 095 or grade of “C” or better in ENG 090 and RED 090 or minimum Accuplacer scores of 80 on Reading and 86 on Writing  
b. EDU 119  
Corequisites: EDU 280  

This course provides a laboratory component to complement EDU 280. Emphasis is placed on practical experiences that enhance concepts introduced in the classroom. Upon completion, students should be able to demonstrate a practical understanding of the development and implementation of appropriate early literacy experiences.

**EDU 284 Early Child Capstone Pract**  1 9 0 4  
Prerequisites:  a. Proficiency in Reading and Writing - A grade of “C” or better in ENG 095 or grade of “C” or better in ENG 090 and RED 090 or minimum Accuplacer scores of 80 on Reading and 86 on Writing  
b. EDU 119, EDU 146, EDU 151 and EDU 151A, EDU 259  
c. EDU 144 and EDU 145 or (PSY 244 and PSY 245)  
Corequisites: None  

This course is designed to allow students to apply skills in a three star (minimum) or NAECY accredited or equivalent, quality early childhood environment. Emphasis is placed on designing, implementing and evaluating developmentally appropriate activities and environments for all children; supporting/involving families; and modeling reflective and professional practices. Upon completion, students should be able to demonstrate developmentally appropriate plans/assessments, appropriate guidance techniques and ethical/professional behaviors as indicated by assignments and onsite faculty visits.

**EGR 110 Intro to Engineering Tech**  1 2 0 2  
Prerequisites: None  
Corequisites: None  

This course introduces general topics relevant to engineering technology. Topics include career assessment, professional ethics, critical thinking and problem solving, usage of college resources for study and research, and using tools for engineering computations. Upon completion, students should be able to choose a career option in engineering technology and utilize college resources to meet their educational goals. This course is also available through the Virtual Learning Community (VLC).

**EGR 250 Statics/Strength of Mater**  4 3 0 5  
Prerequisites: MAT 121 or MAT 161 or MAT 171 or MAT 175  
Corequisites: None  

This course includes vector analysis, equilibrium of force systems, friction, sectional properties, stress/strain, and deformation. Topics include resultants and components of forces, moments and couples, free-body diagrams, shear and moment diagrams, trusses, frames, beams, columns, connections, and combined stresses. Upon completion, students should be able to analyze simple structures.

**ELC 111 Intro to Electricity**  2 2 0 3  
Prerequisites: None  
Corequisites: None  

This course introduces the fundamental concepts of electricity and test equipment to non-electrical/electronic majors. Topics include basic DC and AC principles (voltage, resistance, current, impedance); components (resistors, inductors, and capacitors); power; and operation of test equipment. Upon completion, students should be able to construct and analyze simple DC and AC circuits using electrical test equipment.

**ELC 112 DC/AC Electricity**  3 6 0 5  
Prerequisites:  a. A grade of “C” or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading  
b. A grade of “C” or better in MAT 060 OR successful completion of DMA 010, DMA 020, and DMA 030  
c. A grade of “C” or better in MAT 070 or MAT 080 or MAT 090 or MAT 095 or successful completion of one of the following: MAT 120 or MAT 121 or MAT 161 or MAT 171 or MAT 175 or successful completion of DMA 040 and DMA 050  
Corequisites: None  

This course introduces the fundamental concepts of and computations related to DC/AC electricity. Emphasis is placed on DC/AC circuits, components, operation of test equipment, and other related topics. Upon completion, students should be able to construct, verify, troubleshoot, and repair DC/AC circuits.
### COURSE DESCRIPTIONS

**ELC 113 Residential Wiring**

**Class** 2  **Lab** 6  **Clinical** 0  **Credit** 4

Prerequisites:  
- A grade of “C” or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading
- A grade of “C” or better in MAT 060 OR successful completion of DMA 010, DMA 020, and DMA 030
- A grade of “C” or better in MAT 070 or MAT 080 or MAT 090 or MAT 095 or successful completion of one of the following: MAT 120 or MAT 121 or MAT 161 or MAT 171 or MAT 175 or successful completion of DMA 040 and DMA 050

Corequisites: None

This course introduces the care/usage of tools and materials used in electrical installations and the requirements of the National Electrical Code. Topics include NEC, electrical safety, and electrical blueprint reading; planning, layout; and installation of electrical distribution equipment; lighting; overcurrent protection; conductors; branch circuits; and conduits. Upon completion, students should be able to properly install conduits, wiring, and electrical distribution equipment associated with basic electrical installations.

**ELC 114 Commercial Wiring**

**Class** 2  **Lab** 6  **Clinical** 0  **Credit** 4

Prerequisites:  
- A grade of “C” or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading
- A grade of “C” or better in MAT 060 OR successful completion of DMA 010, DMA 020, and DMA 030
- A grade of “C” or better in MAT 070 or MAT 080 or MAT 090 or MAT 095 or successful completion of one of the following: MAT 120 or MAT 121 or MAT 161 or MAT 171 or MAT 175 or successful completion of DMA 040 and DMA 050

Corequisites: None

This course provides instruction in the application of electrical tools, materials, and test equipment associated with electrical installations. Topics include the NEC; safety; electrical blueprints; planning, layout; and installation of equipment and conduits; and wiring devices such as panels and overcurrent devices. Upon completion, students should be able to properly install equipment and conduit associated with electrical installations.

**ELC 115 Industrial Wiring**

**Class** 2  **Lab** 6  **Clinical** 0  **Credit** 4

Prerequisites: ELC 113

Corequisites: None

This course covers layout, planning, and installation of wiring systems in industrial facilities. Emphasis is placed on industrial wiring methods and materials. Upon completion, students should be able to install industrial systems and equipment.

**ELC 117 Motors and Controls**

**Class** 2  **Lab** 6  **Clinical** 0  **Credit** 4

Prerequisites:  
- A grade of “C” or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading
- A grade of “C” or better in MAT 060 OR successful completion of DMA 010, DMA 020, and DMA 030
- A grade of “C” or better in MAT 070 or MAT 080 or MAT 090 or MAT 095 or successful completion of one of the following: MAT 120 or MAT 121 or MAT 161 or MAT 171 or MAT 175 or successful completion of DMA 040 and DMA 050

Corequisites: None

This course introduces the fundamental concepts of motors and motor controls. Topics include ladder diagrams, pilot devices, contactors, motor starters, motors, and other control devices. Upon completion, students should be able to properly select, connect, and troubleshoot motors and control circuits.

**ELC 118 National Electrical Code**

**Class** 1  **Lab** 2  **Clinical** 0  **Credit** 2

Prerequisites: ELC 111 or ELC 112 or ELC 113

Corequisites: None

This course covers the use of the current National Electrical Code. Topics include the NEC history, wiring methods, overcurrent protection, materials, and other related topics. Upon completion, students should be able to effectively use the NEC.

**ELC 119 NEC Calculations**

**Class** 1  **Lab** 2  **Clinical** 0  **Credit** 2

Prerequisites: ELC 118

Corequisites: None

This course covers branch circuit, feeder, and service calculations. Emphasis is placed on sections of the National Electrical Code related to calculations. Upon completion, students should be able to use appropriate code sections to size wire, conduit, and overcurrent devices for branch circuits, feeders, and service.

**ELC 121 Electrical Estimating**

**Class** 1  **Lab** 2  **Clinical** 0  **Credit** 2

Prerequisites: ELC 113

Corequisites: None

This course covers the principles involved in estimating electrical projects. Topics include take-offs of materials and equipment, labor, overhead, and profit. Upon completion, students should be able to estimate simple electrical projects.

**ELC 125 Diagrams and Schematics**

**Class** 1  **Lab** 2  **Clinical** 0  **Credit** 2

Prerequisites: None

Corequisites: None

This course covers the interpretation of electrical diagrams, schematics, and drawings common to electrical applications. Emphasis is placed on reading and interpreting electrical diagrams and schematics. Upon completion, students should be able to read and interpret electrical diagrams and schematics.
This course introduces the programmable logic controller (PLC) and its associated applications. Topics include ladder logic diagrams, input/output modules, power supplies, surge protection, selection/installation of controllers, and interfacing of controllers with equipment. Upon completion, students should be able to install PLCs and create simple programs.

**ELC 128 Intro to PLC**
Prerequisites: ELC 117 or ELC 131
Corequisites: None

This course introduces DC and AC electricity with an emphasis on circuit analysis, measurements, and operation of test equipment. Topics include DC and AC principles, circuit analysis laws and theorems, components, test equipment operation, circuit simulation, and other related topics. Upon completion, students should be able to interpret circuit schematics; design, construct, verify, and analyze DC/AC circuits; and properly use test equipment.

**ELC 131 Circuit Analysis I**
Prerequisites: Proficiency in Reading - A grade of “C” or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading
Corequisites: MAT 121

This course introduces concepts, designs, tools, techniques, and materials needed to understand systems that convert solar energy into electricity with photovoltaic (pv) technologies. Topics include site analysis for system integration, building codes, and advances in photovoltaic technology. Upon completion, students should be able to demonstrate an understanding of the principles of photovoltaic technology and current applications.

**ELC 221 Adv PV Sys Designs**
Prerequisites: ELC 220
Corequisites: None

This course introduces specific elements to photovoltaic (pv) systems technologies including efficiency, modules, inverters, charge controllers, batteries, and system installation. Topics include National Electrical Code (NEC), electrical specifications, photovoltaic system components, array design and power integration requirements that combine to form a unified structure. Upon completion, students should be able to demonstrate an understanding of various photovoltaic designs and proper installation of NEC compliant solar electric power systems.

**ELC 133 Circuit Analysis II**
Prerequisites: ELC 131
Corequisites: None

This course covers additional concepts of DC/AC electricity, the use of test equipment, and measurement techniques for electrical/electronics majors. Topics include the application of network theorems such as delta/wye transformations, Superposition Theorem, and other advanced circuit analysis principles. Upon completion, students should be able to construct and analyze DC/AC circuits used advanced circuit analysis theorems, circuit simulators, and test equipment.

**ELC 228 PLC Applications**
Prerequisites: ELC 128
Corequisites: None

This course covers programming and applications of programmable logic controllers. Emphasis is placed on programming techniques, networking, specialty I/O modules, and system troubleshooting. Upon completion, students should be able to specify, implement, and maintain complex PLC controlled systems.

**ELC 213 Instrumentation**
Prerequisites: ELC 111 or ELC 112 or ELC 131
Corequisites: None

This course covers the fundamentals of instrumentation used in industry. Emphasis is placed on electric, electronic, and other instruments. Upon completion, students should be able to install, maintain, and calibrate instrumentation.

**ELC 299 Applications Project**
Prerequisites: ELC 117 and ELC 128
Corequisites: None

This course provides an individual and/or integrated team approach to a practical project as approved by the instructor. Topics include project selection and planning, implementation and testing, and a final presentation. Upon completion, students should be able to plan and implement an applications-oriented project.

**ELC 230 Wind & Hydro Power Sys**
Prerequisites: None
Corequisites: None

This course introduces concepts, designs, tools, techniques, and material requirements for systems that convert wind and water into usable energy. Topics include the analysis, measurement, and estimation of potential energy of wind and water systems. Upon completion, students should be able to demonstrate an understanding of the technologies associated with converting wind and water into a viable energy source.

**ELN 114 Marine Electronics**
Prerequisites: None
Corequisites: None

This course introduces a wide variety of marine electronics that are used in the marine research industry. Topics include basic theory, components, circuits, testing, troubleshooting, and installation of AC and DC marine electronics. Upon completion, students should be able to install, troubleshoot, and operate basic marine electronics used in the marine research industry.
<table>
<thead>
<tr>
<th>COURSE DESCRIPTIONS</th>
</tr>
</thead>
</table>

**ELN 131 Analog Electronics I**
- **Prerequisites:** ELC 131 and MAT 121 or MAT 171
- **Corequisites:** None

This course introduces the characteristics and applications of semiconductor devices and circuits. Emphasis is placed on analysis, selection, biasing, and applications. Upon completion, students should be able to construct, analyze, verify, and troubleshoot analog circuits using appropriate techniques and test equipment.

**ELN 132 Analog Electronics II**
- **Prerequisites:** ELN 131
- **Corequisites:** None

This course covers additional applications of analog electronic circuits with an emphasis on analog and mixed signal integrated circuits (IC). Topics include amplification, filtering, oscillation, voltage regulation, and other analog circuits. Upon completion, students should be able to construct, analyze, verify, and troubleshoot analog electronic circuits using appropriate techniques and test equipment.

**ELN 133 Digital Electronics**
- **Prerequisites:** ELC 131 and ELN 131
- **Corequisites:** None

This course covers combinational and sequential logic circuits. Topics include number systems, Boolean algebra, logic families, medium scale integration (MSI) and large scale integration (LSI) circuits, Analog to digital (AD) and digital to analog (DA) conversion, and other related topics. Upon completion, students should be able to construct, analyze, verify, and troubleshoot digital circuits using appropriate techniques and test equipment. *This course is also available through the Virtual Learning Community (VLC).*

**ELN 231 Industrial Controls**
- **Prerequisites:** ELC 131
- **Corequisites:** None

This course introduces the fundamental concepts of control of rotating machinery and associated peripheral devices. Topics include rotating machine theory, ladder logic, electromechanical and solid state relays, motor controls, pilot devices, three-phase power systems, and other related topics. Upon completion, students should be able to interpret schematics and demonstrate an understanding of electromechanical and electronic control of rotating machinery.

**ELN 232 Intro to Microprocessors**
- **Prerequisites:** CSC 133, ELN 133
- **Corequisites:** None

This course introduces microprocessor architecture and microcomputer systems including memory and input/output interfacing. Topics include low-level language programming, bus architecture, I/O systems, memory systems, interrupts, and other related topics. Upon completion, students should be able to interpret, analyze, verify, and troubleshoot fundamental microprocessor circuits and programs using appropriate techniques and test equipment.

**ELN 234 Communication Systems**
- **Prerequisites:** ELN 233, ELN 131, ELN 132, and MAT 121
- **Corequisites:** None

This course introduces the fundamentals of electronic communication systems. Topics include the frequency spectrum, electrical noise, modulation techniques, characteristics of transmitters and receivers, and digital communications. Upon completion, students should be able to interpret analog and digital communication circuit diagrams, analyze transmitter and receiver circuits, and use appropriate communication test equipment.

**ELN 235 Data Communication Sys**
- **Prerequisites:** ELN 234
- **Corequisites:** None

This course covers data communication systems and the transmission of digital information from source to destination. Topics include data transmission systems, interfaces and modems, protocols, networks, and other related topics. Upon completion, students should be able to demonstrate knowledge of the concepts associated with data communication systems.

**ELN 236 Fiber Optics and Lasers**
- **Prerequisites:** ELN 234
- **Corequisites:** None

This course introduces the fundamentals of fiber optics and lasers. Topics include the transmission of light; characteristics of fiber optic and lasers and their systems; fiber optic production; lasers. Topics include the transmission of light; characteristics of lasers; and laser safety. Upon completion, students should be able to understand fiber optic communications and basic laser fundamentals. In addition, opto-electronic devices and optical transmitters and receivers will be investigated and analyzed.

**ELN 237 Local Area Networks**
- **Prerequisites:** CIS 110 and CET 172
- **Corequisites:** None

This course introduces the fundamentals of local area networks and their operation. Topics include the characteristics of network topologies, system hardware, system configuration, installation and operation of the LAN. Upon completion, students should be able to install and maintain a local area network.

**ELN 238 Advanced LANs**
- **Prerequisites:** ELN 237
- **Corequisites:** None

This course covers advanced concepts, tools, and techniques associated with servers, workstations, and overall local area network performance. Topics include network security and configuration, system performance and optimization.
communication protocols and packet formats, troubleshooting techniques, multi-platform integration, and other related topics. Upon completion, students should be able to use advanced techniques to install, manage, and troubleshoot networks and optimize server and workstation performance.

**ELN 260 Prog Logic Controllers** 3 3 0 4
Prerequisites: None
Corequisites: None

This course provides a detailed study of PLC applications, with a focus on design of industrial controls using the PLC. Topics include PLC components, memory organization, math instructions, documentation, input/output devices, and applying PLCs in industrial control systems. Upon completion, students should be able to select and program a PLC system to perform a wide variety of industrial control functions.

**ENG 085 Read & Writing Found** 5 0 0 5
Prerequisites: a. Students must earn a grade of “C” or better in ENG 075 OR in ENG 070 and RED 070 OR b. Students must have an Accuplacer score of 41-65 on Writing and 39-56 on Reading. Students are placed in this developmental class on the basis of the lower of the Writing/Reading test scores. A higher score on only one of the tests does not place the student out of ENG 085. Example: 40 on Accuplacer Writing and 79 on Accuplacer Reading
Corequisites: None

This course uses whole language to develop proficiency in reading and writing for college. Emphasis is placed on applying analytical and critical reading skills to a variety of texts and on introducing the writing process. Upon completion, students should be able to recognize and use various patterns of text organization and compose effective paragraphs.

**ENG 095 Reading & Comp Strategies** 5 0 0 5
Prerequisites: a. Students must earn a grade of “C” or better in ENG 085 OR in ENG 080 and RED 080 OR b. Students must have an Accuplacer score of 66-85 on Writing and 57-79 on Reading. Students are placed in this developmental class on the basis of the lower of the Writing/Reading test scores. A higher score on only one of the tests does not place the student out of ENG 095. Example: 86 on Accuplacer Writing and 79 on Accuplacer Reading
Corequisites: None

This course uses whole language to strengthen proficiency in reading and writing for college. Emphasis is placed on applying critical reading skills to narrative and expository texts and on using the writing process. Upon completion, students should be able to comprehend, analyze, and evaluate college texts and to compose essays in preparation for college writing.

**ENG 101 Applied Communications I** 3 0 0 3
Prerequisites: None
Corequisites: None

This course is designed to enhance reading and writing skills for the workplace. Emphasis is placed on technical reading, job-related vocabulary, sentence writing, punctuation, and spelling. Upon completion, students should be able to identify main ideas with supporting details and produce mechanically correct short writings appropriate to the workplace. This course may meet the communication requirement for DIP and CER programs.
ENG 102 Applied Communicat II  
Prerequisites: None  
Corequisites: None

This course is designed to enhance writing and speaking skills for the workplace. Emphasis is placed on generating short writings such as job application documents, memoranda, and reports and developing interpersonal communication skills with employees and the public. Upon completion, students should be able to prepare effective, short, and job-related written and oral communications. This course may meet the communication requirement for DIP and CER programs.

ENG 111 Expository Writing  
Prerequisites: Proficiency in Reading AND Writing - A grade of “C” or better in ENG 095 OR a grade of “C” or better in ENG 090 AND RED 090 OR minimum Accuplacer scores of 80 on Reading and 86 on Writing
Corequisites: None

This course is the required first course in a series of two designed to develop the ability to produce clear expository prose. Emphasis is placed on the writing process including audience analysis, topic selection, thesis support and development, editing, and revision. Upon completion, students should be able to produce unified, coherent, well-developed essays using standard written English. This course may be taught in a computer lab. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in English composition. This course may meet the SACS communication requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.

ENG 112 Argument-Based Research  
Prerequisites: ENG 111
Corequisites: None

This course, the second in a series of two, introduces research techniques, documentation styles, and argumentative strategies. Emphasis is placed on analyzing data and incorporating research findings into documented argumentative essays and research projects. Upon completion, students should be able to summarize, paraphrase, interpret, and synthesize information from primary and secondary sources using standard research format and style. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in English composition. This course may meet the SACS communication requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.

ENG 113 Literature-Based Research  
Prerequisites: ENG 111
Corequisites: None

This course, the second in a series of two, expands the concepts developed in ENG 111 by focusing on writing that involves literature-based research and documentation. Emphasis is placed on critical reading and thinking and the analysis and interpretation of prose, poetry, and drama: plot, characterization, theme, cultural context, etc. Upon completion, students should be able to construct mechanically sound, documented essays and research papers that analyze and respond to literary works. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in English composition. This course may meet the SACS communication requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.

ENG 114 Prof Research & Report  
Prerequisites: ENG 111
Corequisites: None

This course, the second in a series of two, is designed to teach professional communication skills. Emphasis is placed on research, listening, critical reading and thinking, analysis, interpretation, and design used in oral and written presentations. Upon completion, students should be able to work individually and collaboratively to produce well-designed business and professional written and oral presentations. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in English composition. This course may meet the SACS communication requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.

ENG 125 Creative Writing I  
Prerequisites: ENG 111
Corequisites: None

This course is designed to provide students with the opportunity to practice the art of creative writing. Emphasis is placed on writing, fiction, poetry, and sketches. Upon completion, students should be able to craft and critique their own writing and critique the writing of others. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement. This course may meet the SACS humanities/fine arts requirement for AGE, AAS, DIP, or CER programs.

ENG 126 Creative Writing II  
Prerequisites: ENG 125
Corequisites: None

This course is designed as a workshop approach for advancing imaginative and literary skills. Emphasis is placed on the discussion of style, techniques, and challenges for first publications. Upon completion, students should be able to submit a piece of their writing for publication. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.
### ENG 131 Introduction to Literature
3 0 0 3
Prerequisites: ENG 111
Corequisites: ENG 112 or ENG 113 or ENG 114

This course introduces the principal genres of literature. Emphasis is placed on literary terminology, devices, structure, and interpretation. Upon completion, students should be able to analyze and respond to literature. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. This course may meet the SACS humanities/fine arts requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.

### ENG 231 American Literature I
3 0 0 3
Prerequisites: ENG 112 or ENG 113 or ENG 114
Corequisites: None

This course covers selected works in American literature from its beginnings to 1865. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to literary works in their historical and cultural contexts. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. This course may meet the SACS humanities/fine arts requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.

### ENG 232 American Literature II
3 0 0 3
Prerequisites: ENG 112 or ENG 113 or ENG 114
Corequisites: None

This course covers selected works in American literature from 1865 to the present. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to literary works in their historical and cultural contexts. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. This course may meet the SACS humanities/fine arts requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.

### ENG 233 Major American Writers
3 0 0 3
Prerequisites: ENG 112 or ENG 113 or ENG 114
Corequisites: None

This course provides an intensive study of the works of several major American authors. Emphasis is placed on American history, culture, and the literary merits. Upon completion, students should be able to interpret, analyze, and evaluate the works studied. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. This course may meet the SACS humanities/fine arts requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.

### ENG 241 British Literature I
3 0 0 3
Prerequisites: ENG 112 or ENG 113 or ENG 114
Corequisites: None

This course covers selected works in British literature from the beginnings to the Romantic Period. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to literary works in their historical and cultural contexts. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. This course may meet the SACS humanities/fine arts requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.

### ENG 242 British Literature II
3 0 0 3
Prerequisites: ENG 112 or ENG 113 or ENG 114
Corequisites: None

This course covers selected works in British literature from the Romantic Period to the present. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to literary works in their historical and cultural contexts. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. This course may meet the SACS humanities/fine arts requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.

### ENG 241 World Literature I
3 0 0 3
Prerequisites: ENG 112 or ENG 113 or ENG 114
Corequisites: None

This course introduces selected works from the Pacific, Asia, Africa, Europe, and the Americas from their literary beginnings through the seventeenth century. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to selected works. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. This course may meet the SACS humanities/fine arts requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.

### ENG 262 World Literature II
3 0 0 3
Prerequisites: ENG 112 or ENG 113 or ENG 114
Corequisites: None

This course introduces selected works from the Pacific, Asia, Africa, Europe, and the Americas from the eighteenth century to the present. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to selected works. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/
fine arts. This course may meet the SACS humanities/fine arts requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.

ENG 272 Southern Literature  3 0 0 3
Prerequisites: ENG 112 or ENG 113 or ENG 114
Corequisites: None

This course provides an analytical study of the works of several Southern authors. Emphasis is placed on the historical and cultural contexts, themes, aesthetic features of individual works, and biographical backgrounds of the authors. Upon completion, students should be able to interpret, analyze, and discuss selected works. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement. This course may meet the SACS humanities/fine arts requirement for AGE, AAS, DIP, or CER programs.

ENG 273 African-American Literature  3 0 0 3
Prerequisites: ENG 112 or ENG 113 or ENG 114
Corequisites: None

This course provides a survey of the development of African-American literature from its beginnings to the present. Emphasis is placed on historical and cultural context, themes, literary traditions, and backgrounds of the authors. Upon completion, students should be able to interpret, analyze, and respond to selected texts. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement. This course may meet the SACS humanities/fine arts requirement for AGE, AAS, DIP, or CER programs.

ENG 274 Literature by Women  3 0 0 3
Prerequisites: ENG 112 or ENG 113 or ENG 114
Corequisites: None

This course provides an analytical study of the works of several women authors. Emphasis is placed on the historical and cultural contexts, themes and aesthetic features of individual works, and biographical backgrounds of the authors. Upon completion, students should be able to interpret, analyze, and discuss selected works. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement. This course may meet the SACS humanities/fine arts requirement for AGE, AAS, DIP, or CER programs.

ENT 114 Entertainment Law  3 0 0 3
Prerequisites: None
Corequisites: None

This course provides an introduction to legal aspects of the entertainment industry. Topics include performance rights, songwriting and personal appearance contracts, copyright law, trademarks, and the like. Upon completion, students should be able to explain the basic elements of a contract, recognizing, explaining, and evaluating elements of law that pertain to entertainment.

ENV 110 Environmental Science  3 0 0 3
Prerequisites: None
Corequisites: None

This course covers the environmental problems facing society today. Topics include population, natural resources, air and water pollution, and waste disposal problems. Upon completion, students should be able to demonstrate insight into the role the individual plays in shaping the environment.

ENV 226 Environmental Law  3 0 0 3
Prerequisites: Take one set:
Set 1: ENV 110
Set 2: BIO 140 and BIO 140 A
Corequisites: None

This course covers federal laws and acts concerning environmental quality standards and the use of resources, legal procedures for enforcing laws, and problems concerning enforcement. Emphasis is placed on environmental law basics, water quality laws, air quality laws, waste disposal laws, and biological resource protection laws. Upon completion, students should be able to demonstrate an understanding of federal/state environmental laws and their importance to the protection of environmental quality.

FIP 120 Intro to Fire Protection  3 0 0 3
Prerequisites: None
Corequisites: None

This course provides an overview of the development, methods, systems and regulations that apply to the fire protection field. Topics include history, evolution, statistics, suppression, educational programs, and inspection programs. Upon completion, students should be able to demonstrate a broad understanding of the fire protection field.

FIP 124 Fire Prevention & Public Ed  3 0 0 3
Prerequisites: None
Corequisites: None

This course introduces fire prevention concepts as they relate to community and industrial operations. Topics include the development and maintenance of fire prevention programs, educational programs, and inspection programs. Upon completion, students should be able to research, develop, and present a fire safety program to a citizens or industrial group, meeting NFPA 1021.

FIP 128 Detection & Investigation  3 0 0 3
Prerequisites: None
Corequisites: None

This course covers procedures for determining the origin and cause of accidental and incendiary fires. Topics include collection and preservation of evidence, detection and determination of accelerants, courtroom procedure and testimony, and documentation of the fire scene. Upon completion, students should be able to conduct a competent
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIP 132</td>
<td>Building Construction</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Prerequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FIP 136</td>
<td>Inspections &amp; Codes</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Prerequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FIP 152</td>
<td>Fire Protection Law</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Prerequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FIP 156</td>
<td>Computers in Fire Service</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Prerequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FIP 164</td>
<td>OSHA Standards</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Prerequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Fire investigation and present those findings to appropriate officials or equivalent.

This course covers the principles and practices related to various types of building construction, including residential and commercial, as impacted by fire conditions. Topics include types of construction and related elements, fire resistive aspects of construction materials, building codes, collapse, and other related topics. Upon completion, students should be able to understand and recognize various types of construction and their positive or negative aspects as related to fire conditions, meeting NFPA 1021.

This course covers the fundamentals of fire and building codes and procedures to conduct an inspection. Topics include review of fire and building codes, writing inspection reports, identifying hazards, plan reviews, site sketches, and other related topics. Upon completion, students should be able to conduct a fire code compliance inspection and produce a written report, meeting NFPA 1021.

This course covers fire protection law. Topics include torts, legal terms, contracts, liability, review of case histories, and other related topics. Upon completion, students should be able to discuss laws, codes, and ordinances as they relate to fire protection.

This course covers the use of computers by fire protection organizations. Topics include operating systems, networking concepts, fire incident reporting systems, and other software applications in fire protection. Upon completion, students should be able to demonstrate knowledge of computers and their applications to fire protection.

This course covers public and private sector OSHA work site requirements. Emphasis is placed on accident prevention and reporting, personal safety, machine operations, and hazardous material handling. Upon completion, students should be able to analyze and interpret specific OSHA regulations and write workplace policies designed to achieve compliance.

This course provides preparation for command of initial incident operations involving emergencies within both the public and private sector. Topics include incident management, fire-ground tactics and strategies, incident safety, and command/control of emergency operations. Upon completion, students should be able to describe the initial incident system as it relates to operations involving various emergencies in fire and non-fire situations, meeting NFPA 1021.

This course covers the fundamentals of fire and building codes and procedures to conduct an inspection. Topics include review of fire and building codes, writing inspection reports, identifying hazards, plan reviews, site sketches, and other related topics. Upon completion, students should be able to conduct a fire code compliance inspection and produce a written report, meeting NFPA 1021.

This course covers command-level operations for multi-company/agency operations involving fire and non-fire emergencies. Topics include advanced ICS, advanced incident analysis, command-level fire operations, and control of both manmade and natural major disasters. Upon completion, students should be able to describe proper and accepted systems for the mitigation of emergencies at the level of overall scene command.

This course covers the knowledge, skills, and requirements referenced in the National Fire Protection Association (NFPA) Standard 1021 for Fire Officer I and II training. Topics include officer roles and responsibilities, budgets, fire cause determination, inspections, education, leadership, management, public relations, and other requirements included in the NFPA standard. Upon completion, students should be able to demonstrate an understanding of relevant NFPA standards as required for state Fire Officer I and II certification.

This course covers the evaluation of hazardous materials. Topics include use of the periodic table, hydrocarbon derivatives, placards and labels, parameters of combustion, and spill and leak mitigation. Upon completion, students should be able to demonstrate knowledge of the chemical behavior of hazardous materials.
and structures at high risk, evaluation of systems models, and use of computer models to predict human behavior during fires. Upon completion, students should be able to identify and anticipate human behavior in response to various residential, commercial, board-and-care facility, and wild land/rural fire events.

**FRE 111 Elementary French I**  
3 0 0 3  
Prerequisites: Proficiency in Reading - A grade of “C” or better in ENG 085 or RED 080 OR minimum Accuplacer score of 57 on Reading  
Corequisites: FRE 181

This course introduces the fundamental elements of the French language within a cultural context. Emphasis is placed on the development of basic listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written French and demonstrate cultural awareness. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/ fine arts. This course may meet the second SACS humanities/ fine arts requirement for AA, AS, and AFA programs.

Students who have completed two units of foreign language in high school are advised to take the CLEP (College Level Examination for Placement) before registering for FRE 111. The CLEP is given daily at the University of North Carolina-Wilmington Testing Center and requires a fee. Students should make an appointment by calling 910-362-7444. CFCC discourages students from taking elementary levels of global languages if they have had satisfactory grades in high school language courses.

**FRE 112 Elementary French II**  
3 0 0 3  
Prerequisites: FRE 111  
Corequisites: FRE 182

This course is a continuation of FRE 111 focusing on the fundamental elements of the French language within a cultural context. Emphasis is placed on the progressive development of listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with increasing proficiency to spoken and written French and to demonstrate further cultural awareness. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. This course may meet the second SACS humanities/fine arts requirement for AA, AS, and AFA programs.

**FRE 181 French Lab 1**  
0 2 0 1  
Prerequisites: Proficiency in Reading - A grade of “C” or better in ENG 085 or RED 080 OR minimum Accuplacer score of 57 on Reading  
Corequisites: FRE 111

This course provides an opportunity to enhance acquisition of the fundamental elements of the French language. Emphasis is placed on the progressive development of basic
listening, speaking, reading, and writing skills through the use of supplementary learning media and materials. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written French and demonstrate cultural awareness. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

Students who have completed two units of foreign language in high school are advised to take the CLEP (College Level Examination for Placement) before registering for FRE 111. The CLEP is given daily at the University of North Carolina-Wilmington Testing Center and requires a fee. Students should make an appointment by calling 910-362-7444. CFCC discourages students from taking elementary levels of global languages if they have had satisfactory grades in high school language courses.

FRE 182 French Lab 2
Prerequisites: FRE 181
Corequisites: FRE 112

This course provides an opportunity to enhance acquisition of the fundamental elements of the French language. Emphasis is placed on the progressive development of basic listening, speaking, reading, and writing skills through the use of supplementary learning media and materials. Upon completion, students should be able to comprehend and respond with increasing proficiency to spoken and written French and demonstrate cultural awareness. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

FRE 211 Intermediate French I
Prerequisites: FRE 112
Corequisites: None

This course provides a review and expansion of the essential skills of the French language. Emphasis is placed on the study of authentic and representative literary and cultural texts. Upon completion, students should be able to communicate effectively, accurately, and creatively about the past, present, and future. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. This course may meet the SACS humanities/fine arts requirement for AA, AS, and AFA programs.

FRE 212 Intermediate French II
Prerequisites: FRE 211
Corequisites: None

This course is a continuation of FRE 211. Emphasis is placed on the continuing study of authentic and representative literary and cultural texts. Upon completion, students should be able to communicate spontaneously and accurately with increasing complexity and sophistication. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. This course may meet the SACS humanities/fine arts requirement for AA, AS, and AFA programs.

FST 102 Foodservice Skills I
Prerequisites: None
Corequisites: CUL 110

This course introduces the concepts, skills, and techniques for volume food production in an institutional or commercial setting. Emphasis is placed on knife skills, tool and equipment handling, and applying principles of basic hot and cold food preparation. Upon completion, students should be able to demonstrate entry-level skills for foodservice operations.

FVP 111 Intro to Film and Video
Prerequisites: None
Corequisites: None

This course is an overview of the film making process from conceptualization to execution and examines film genres in the context of history, theory, creativity, and commerce. Topics include the history of film and video in the US, technical terminology, relationships between various job categories, and the language of film. Upon completion, students should be able to demonstrate a film vocabulary and knowledge of working conditions in the film/video production field.

FVP 112 Art Dept Operations I
Prerequisites: None
Corequisites: None

This course introduces practical fabrication skills for wood and other materials required to build both props and sets from blueprints, photographs, or sketches. Emphasis is placed on the safe use of hand and power tools, and the skills required for collaborative efforts in set and prop construction. Upon completion students should be able to demonstrate a working knowledge of the equipment and skills necessary to assist in constructing sets and props.

FVP 113 Grip & Electrical I
Prerequisites: None
Corequisites: None

This course covers various grip/support packages used in different environments for studio and location. Topics include lighting units, hardware, stands, color media, and electrical theory with emphasis on safety. Upon completion, students should be able to execute basic grip and electrical directions given by the key grip, and/or gaffer.

FVP 114 Camera & Lighting I
Prerequisites: None
Corequisites: None

This course covers the basic principles of video camera and recorder operations in professional formats, crew protocol and
safety, and basic lighting theory and application. Emphasis is placed on terminology, the characteristics of light, basic lighting procedures, and proper procedures of field recording with video equipment. Upon completion, students should be able to demonstrate an understanding of the basic technical terms of camera operation, video recording and lighting equipment.

FVP 115 Camera & Lighting II 2 3 0 3
Prerequisites: FVP 114
Corequisites: None

This course offers advanced principles of video camera and recorder operations and introduces students to film formats and equipment as well as advanced lighting theory applications. Emphasis is placed on terminology, lighting for effect, and color correction. Upon completion, students should be able to demonstrate an understanding of camera terms and equipment, lighting theory and applications, and assist on studio and location shoots.

FVP 116 Sound Operation 2 3 0 3
Prerequisites: None
Corequisites: None

This course provides an overview of sound theory, methods, and technologies for location and studio recording, and hands-on work in location sound gathering. Emphasis is placed on terminology, protocol, cabling, trouble-shooting, mixing skills and safety aspects associated with hands-on work in sound gathering. Upon completion, students should be able to demonstrate an understanding of sound theory and terminology and assist professionals in sound gathering in both film and audio production.

FVP 117 Make-up & Wardrobe 2 3 0 3
Prerequisites: None
Corequisites: None

This course covers talent presentation for camera including period and genre make-up styles, materials and methods of fabrication. Emphasis is placed on understanding the wardrobe department, make-up application, prosthetics and special effects make-up with emphasis on safety, hygiene, durability and continuity. Upon completion, students should understand the functions of the wardrobe department and demonstrate competence in the use of various make-up applications.

FVP 120 Art Dept. Operations II 1 4 0 3
Prerequisites: FVP 112
Corequisites: None

This course provides a more in depth coverage of the skills necessary to assist in the set construction, paint, set dressing, props and greens departments. Emphasis is placed on the skill range required for each craft including, but not limited to, plumbing, casting, wallpapering, furniture construction, upholstery, wiring and drapery. Upon completion students should be competent to assist in all fields related to the fabrication and decoration of sets and props.

FVP 130 Grip and Electrical II
Prerequisites: FVP 113
Corequisites: None

This course provides a more in depth coverage of grip/support packages used in studio work and on location. Topics include advanced coverage of lighting, color media, and camera dollies, rigging, and electrical distribution with emphasis on safety issues. Upon completion students should be able to execute grip and electrical directions given by the key grip, gaffer, cinematographer and/or director of photography.

FVP 212 Production Techniques I 1 12 0 5
Prerequisites: FVP 111 and FVP 115 and FVP 116
Corequisites: None

This course provides experience working in a variety of crew positions with both student and professional productions and covers advanced film production concepts. Emphasis is placed on successful interaction with other advanced students and/or professionals as well as competency in advanced film production concepts. Upon completion, students should be able to demonstrate professional skills needed to pursue careers in the film and video industry.

FVP 213 Production Techniques II 1 12 0 5
Prerequisites: FVP 212
Corequisites: None

This course provides experience working in a variety of crew positions with both student and professional productions and covers advanced film production concepts. Emphasis is placed on successful interaction with other advanced students and/or professionals as well as competency in advanced film production concepts. Upon completion, students should be able to demonstrate professional skills needed to pursue careers in key positions in the film and video industry.

FVP 215 Production Management 2 3 0 3
Prerequisites: FVP 111
Corequisites: FVP 238

This course emphasizes the activity of script breakdown in pre-production as well as the activities of the production office in both the production and post-production stages. Emphasis is placed on procedures, use of industry standard forms and software, as well as the functions and practices of the production office. Upon completion students should be able to demonstrate the people and technical skills necessary to assist above-the-line professionals in all types of film and video production.

FVP 220 Editing I 2 3 0 3
Prerequisites: None
Corequisites: None

This course covers film and video editing from traditional methods to digital non-linear systems and basic film lab and transfer facility procedures. Topics include terminology,
## Course Descriptions

### FVP 221 Editing II
**Prerequisites:** FVP 220  
**Corequisites:** None  

This course covers editing in the digital environment, starting from the camera negative through the transfer, the non-linear digital edit and going back to negative matching. Topics include terminology, technologies, aesthetics, advanced sound and picture editing skills, and the editor’s role augmented by hands-on experience. Upon completion students should be able to demonstrate proficiency in using editing equipment and sound and picture editing skills.

### FVP 227 Multimedia Production
**Prerequisites:** FVP 212  
**Corequisites:** None  

This course covers technical terms used in the multimedia industry and introduces skills related to digital manipulation of audio and video materials. Emphasis is placed on technical terms used in multimedia work and integration of sound, video, graphics, and text into a single production. Upon completion, students should be able to define technical terms in multimedia work and work with a variety of computer hardware and software.

### FVP 238 Software Apps for FVP
**Prerequisites:** None  
**Corequisites:** None  

This course introduces the use of industry standard computer software unique to the motion picture industry using personal computers. Emphasis is placed on hands-on work with budgeting and scheduling software and in facilitating the relationship between the technical crew and the script. Upon completion, students should be able to assist with script breakdown for budgeting and scheduling and work with that information in computer-based formats.

### FVP 250 Production Specialties I
**Prerequisites:** FVP 111 and FVP 114  
**Corequisites:** None  

This course provides education and training through contextual learning in the film production areas of art department, camera, sound, grip, electric, locations, script, and continuity. Emphasis is placed on successful professional level interaction with other students and industry professionals through pre-production and initial production of an actual film/video project. Upon completion, students should demonstrate an understanding of the film/video pre-production and initial production process, and the relationship among the departments in these areas.

### GEL 113 Historical Geology
**Prerequisites:** GEL 111 or GEL 120; Proficiency in Reading - A grade of "C" or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading  
**Corequisites:** None  

This course covers the geological history of the earth and its life forms. Emphasis is placed on the study of rock strata, fossil groups, and geological time. Upon completion, students should be able to identify major fossil groups and associated rock strata and approximate ages of geological formations.  

### GEL 120 Physical Geology
**Prerequisites:** Proficiency in Reading - A grade of "C" or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading  
**Corequisites:** None  

This course provides a study of the structure and composition of the earth’s crust. Emphasis is placed on weathering, erosional and depositional processes, mountain building forces, rocks and minerals, and structural changes. Upon completion, students should be able to explain the structure, composition, and formation of the earth’s crust.  

### GEL 220 Marine Geology
**Prerequisites:** GEL 120  
**Corequisites:** None  

This course presents a detailed examination of coastal and sea floor geology. Emphasis is placed on coastal and sea floor landforms and processes that shape these features. Upon completion, students should be able to describe the origin and evolution of both coastal and sea floor landforms. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

### GEL 230 Environmental Geology
**Prerequisites:** GEL 111, GEL 120, OR PHS 130; Proficiency in Reading - A grade of "C" or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading  
**Corequisites:** None  

This course provides insights into geologic forces that cause environmental changes influencing man’s activities. Emphasis is placed on natural hazards and disasters caused by geologic forces. Upon completion, students should be able to relate to...
## COURSE DESCRIPTIONS

### GER 111 Elementary German I

**Prerequisites:** Proficiency in Reading - A grade of “C” or better in ENG 085 or RED 080 OR minimum Accuplacer score of 57 on Reading  
**Corequisites:** GER 181  

This course introduces the fundamental elements of the German language within a cultural context. Emphasis is placed on the development of basic listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written German and demonstrate cultural awareness. **This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. This course may meet the second SACS humanities/fine arts requirement for AA, AS, and AFA programs.**

### GER 112 Elementary German II

**Prerequisites:** GER 111  
**Corequisites:** GER 182  

This course is a continuation of GER 111 focusing on the fundamental elements of the German language within a cultural context. Emphasis is placed on the progressive development of listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with increasing proficiency to spoken and written German and to demonstrate further cultural awareness. **This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. This course may meet the second SACS humanities/fine arts requirement for AA, AS, and AFA programs.**

### GER 181 German Lab I

**Prerequisites:** Proficiency in Reading - A grade of “C” or better in ENG 085 or RED 080 OR minimum Accuplacer score of 57 on Reading  
**Corequisites:** GER 111  

This course provides an opportunity to enhance acquisition of the fundamental elements of the German language.

### GER 182 German Lab 2

**Prerequisites:** GER 181  
**Corequisites:** GER 112  

This course provides a review and expansion of the essential skills of the German language. Emphasis is placed on the progressive development of basic listening, speaking, reading, and writing skills through the use of supplementary learning media and materials. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written German and demonstrate cultural awareness. **This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.**

### GER 211 Intermediate German I

**Prerequisites:** GER 112  
**Corequisites:** None  

This course provides a review and expansion of the essential skills of the German language. Emphasis is placed on the progressive development of basic listening, speaking, reading, and writing skills through the use of supplementary learning media and materials. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written German and demonstrate cultural awareness. **This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. This course may meet the SACS humanities/fine arts requirement for AA, AS, and AFA programs.**

### GER 212 German II

**Prerequisites:** GER 211  
**Corequisites:** None  

This course is a continuation of GER 211. Emphasis is placed on the continuing study of authentic and representative literary and cultural texts. Upon completion, students should be able to communicate spontaneously and accurately with increasing complexity and sophistication. **This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.**
This course provides first aid and safety education. Emphasis is placed on safety, accident prevention, and response to accidents and injuries. Upon completion, students should be able to demonstrate proper first aid and safety skills. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.

This course introduces theory, design, terminology, and operating adjustments for diesel engines. Emphasis is placed on safety, theory of operation, inspection, measuring, and rebuilding diesel engines according to factory specifications. Upon completion, students should be able to measure, diagnose problems, and repair diesel engines.

This course introduces power transmission devices. Topics include function and operation of gears, chains, clutches, planetary gears, drive lines, differentials, and transmissions. Upon completion, students should be able to identify, research specifications, repair, and adjust power train components.

This course introduces the principles of electronically controlled diesel engines. Emphasis is placed on testing and adjusting diesel engines in accordance with manufacturers' specifications. Upon completion, students should be able to diagnose, test, and calibrate electronically controlled diesel engines.

This course introduces preventive maintenance practices used on medium and heavy duty vehicles and rolling assemblies. Topics include preventive maintenance schedules, services, DOT rules and regulations, and roadability. Upon completion, students should be able to set up and follow a preventive maintenance schedule as directed by manufacturers.

This course introduces the principles of fuel injection and other power systems used in the heavy equipment industry including newer and cleaner technology. Emphasis is placed on test equipment, component functions, safety, and theories of older conventional and newer and cleaner Tier III and Tier IV fuel systems. Upon completion, students should be able to diagnose and service fuel systems and explain proper safety procedures on alternative fuel systems used in heavy equipment industry.

This course introduces the theory and principles of braking and steering in medium and heavy duty vehicles. Topics include wheel and tire problems, frame members, bearings, fifth wheel, coupling systems, and braking systems. Upon completion, students should be able to diagnose, adjust, and repair steering and braking problems on medium and heavy duty vehicles.

This course introduces the operation and design of air braking systems used on trucks. Topics include safety, governors, compressors, and supporting systems. Upon completion, students should be able to diagnose, disassemble, inspect, repair, and reassemble air brake systems.

This course introduces the study of global history. Emphasis is placed on topics such as colonialism, industrialism, and nationalism. Upon completion, students should be able to analyze significant global historical issues. This course will focus primarily on Asia, Africa, Latin America, and the Middle East since 1500. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. This course may meet the SACS humanities/fine arts requirement for AA, AS, and AFA programs.
### HIS 116 Current World Problems

**Prerequisites:** Proficiency in Reading - A grade of “C” or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading

**Corequisites:** None

This course covers current world events from an historical perspective. Topics include regional problems as well as international concerns. Upon completion, students should be able to analyze significant current world problems from an historical perspective. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement. This course may meet the SACS social/behavioral science requirement for AGE, AAS, DIP, or CER programs.

### HIS 121 Western Civilization I

**Prerequisites:** Proficiency in Reading - A grade of “C” or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading

**Corequisites:** None

This course introduces western civilization from pre-history to the early modern era. Topics include ancient Greece, Rome, and Christian institutions of the Middle Ages and the emergence of national monarchies in western Europe. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in early western civilization. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences. This course may meet the SACS social/behavioral science requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.

### HIS 122 Western Civilization II

**Prerequisites:** Proficiency in Reading - A grade of “C” or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading

**Corequisites:** None

This course introduces western civilization from the early modern era to the present. Topics include the religious wars, the Industrial Revolution, World Wars I and II, and the Cold War. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in modern western civilization. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences. This course may meet the SACS social/behavioral science requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.

### HIS 131 American History I

**Prerequisites:** Proficiency in Reading - A grade of “C” or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading

**Corequisites:** None

This course is a survey of American history from pre-history through the Civil War era. Topics include the migrations to the Americas, the colonial and revolutionary periods, the development of the Republic, and the Civil War. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in early American history. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences. This course may meet the SACS social/behavioral science requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.

### HIS 132 American History II

**Prerequisites:** Proficiency in Reading - A grade of “C” or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading

**Corequisites:** None

This course is a survey of American history from the Civil War era to the present. Topics include industrialization, immigration, the Great Depression, the major American wars, the Cold War, and social conflict. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in American history since the Civil War. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences. This course may meet the SACS social/behavioral science requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.

### HIS 221 African-American History

**Prerequisites:** Proficiency in Reading - A grade of “C” or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading

**Corequisites:** None

This course covers African-American history from the Colonial period to the present. Topics include African origins, the slave trade, the Civil War, Reconstruction, the Jim Crow era, the civil rights movement, and contributions of African Americans. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in the history of African Americans. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement. This course may meet the SACS social/behavioral science requirement for AGE, AAS, DIP, or CER programs.
HIS 227 Native American History  
3 0 0 3  
Prerequisites: Proficiency in Reading - A grade of “C” or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading  
Corequisites: None  

This course surveys the history and cultures of Native Americans from pre-history to the present. Topics include Native American civilizations, relations with Europeans, and the continuing evolution of Native American cultures. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments among Native Americans. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement. This course may meet the SACS social/behavioral science requirement for AGE, AAS, DIP, or CER programs.

HIS 228 History of the South  
3 0 0 3  
Prerequisites: Proficiency in Reading - A grade of “C” or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading  
Corequisites: None  

This course covers the origin and development of the South as a distinct region of the United States. Emphasis is placed on Southern identity and its basis in cultural, social, economic, and political developments during the 19th and 20th centuries. Upon completion, students should be able to identify and analyze the major cultural, social, economic, and political developments in the South. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

HIS 229 History of the Old South  
3 0 0 3  
Prerequisites: Proficiency in Reading - A grade of “C” or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading  
Corequisites: None  

This course is a study of the development of the South from European settlement through the Civil War. Topics include the multi-ethnic character of colonization, the plantation economy, relations between social classes, the nature of slavery, and issues leading to the Civil War. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in the antebellum South. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement. This course may meet the SACS social/behavioral science requirement for AGE, AAS, DIP, or CER programs.

HOR 112 Landscape Design I  
2 3 0 3  
Prerequisites: None  
Corequisites: None  

This course covers landscape principles and practices for residential and commercial sites. Emphasis is placed on drafting, site analysis, and common elements of good design, plant material selection, and proper plant utilization. Upon completion, students should be able to read, plan, and draft a landscape design.

HOR 114 Landscape Construction  
2 2 0 3  
Prerequisites: None  
Corequisites: None  

This course introduces the design and fabrication of landscape structures/features. Emphasis is placed on safety, tool identification and use, material selection, construction techniques, and fabrication. Upon completion, students should be able to design and construct common landscape structures/features.

HOR 134 Greenhouse Operations  
2 2 0 3  
Prerequisites: None  
Corequisites: None  

This course covers the principles and procedures involved in the operation and maintenance of greenhouse facilities. Emphasis is placed on the operation of greenhouse systems, including the environmental control, record keeping, scheduling, and production practices. Upon completion, students should be able to demonstrate the ability to operate greenhouse systems and facilities to produce greenhouse crops.

HOR 160 Plant Materials I  
2 2 0 3  
Prerequisites: None  
Corequisites: None  

This course covers identification, culture, characteristics, and use of plants. Emphasis is placed on nomenclature, identification, growth requirements, cultural requirements, soil preferences, and landscape applications. Upon completion, students should be able to demonstrate knowledge of the proper selection and utilization of plant materials.

HOR 164 Hort Pest Management  
2 2 0 3  
Prerequisites: None  
Corequisites: None  

This course covers the identification and control of plant pests including insects, diseases, and weeds. Topics include pest identification and chemical regulations, safety, and pesticide application. Upon completion, students should be able to meet the requirements for North Carolina Commercial Pesticide Ground Applicators license.

HOR 213 Landscape Design II  
2 2 0 3  
Prerequisites: HOR 112  
Corequisites: None  

This course covers residential and commercial landscape design, cost analysis, and installation. Emphasis is placed on job cost estimates, installation of the landscape design, and maintenance techniques. Upon completion, students should
be able to read landscape design blueprints, develop cost estimates, and implement the design.

**HOR 235 Greenhouse Production**  
Class: 2  
Lab: 2  
Clinical: 0  
Credit: 3  
Prerequisites: None  
Corequisites: None  
This course covers the production of greenhouse crops. Emphasis is placed on product selection and production based on market needs and facility availability, including record keeping. Upon completion, students should be able to select and make production schedules to successfully produce greenhouse crops.

**HOR 257 Arboriculture Practices**  
Class: 1  
Lab: 3  
Clinical: 0  
Credit: 2  
Prerequisites: HOR 160 or LSG 111  
Corequisites: None  
This course covers the culture and maintenance of trees and shrubs. Topics include fertilization, pruning, approved climbing techniques, pest control, and equipment use and safety. Upon completion, students should be able to properly prune trees and shrubs and perform arboricultural practices.

**HOR 260 Plant Materials II**  
Class: 2  
Lab: 2  
Clinical: 0  
Credit: 3  
Prerequisites: HOR 160  
Corequisites: None  
This course covers important landscape plants. Emphasis is placed on identification, plant nomenclature, growth characteristics, culture requirements, and landscape uses. Upon completion, students should be able to demonstrate knowledge of the proper selection and utilization of plant materials.

**HRM 110 Intro to Hosp & Tourism**  
Class: 3  
Lab: 0  
Clinical: 0  
Credit: 3  
Prerequisites: None  
Corequisites: None  
This course covers the growth and progress of the hospitality industry. Topics include tourism, lodging, resorts, gaming, restaurants, foodservice and clubs. Upon completion, students should be able to demonstrate an understanding of the background, context, and career opportunities that exist within the hospitality industry.

**HRM 115 Housekeeping**  
Class: 3  
Lab: 0  
Clinical: 0  
Credit: 3  
Prerequisites: None  
Corequisites: HRM 115A  
This course covers the scope, responsibilities, communications, terminology, materials, and concerns specific to hotel housekeeping. Topics include management and supervision of housekeeping staff in the proper cleaning and sanitation of rooms and public areas, budgeting, purchasing, security, and inventory control. Upon completion, students should be able to understand and apply the principles of organization and management of a housekeeping department.

**HRM 115A Housekeeping Lab**  
Class: 0  
Lab: 2  
Clinical: 0  
Credit: 1  
Prerequisites: None  
Corequisites: HRM 115  
This course is a laboratory to accompany HRM 115. Emphasis is placed on the development of skills for the performance of housekeeping tasks. Upon completion, students should be able to demonstrate mastery of housekeeping skills.

**HRM 120 Front Office Procedures**  
Class: 3  
Lab: 0  
Clinical: 0  
Credit: 3  
Prerequisites: None  
Corequisites: HRM 120A  
This course provides a systematic approach to hotel front office procedures. Topics include reservations, registration, guest satisfaction, occupancy and rate management, security, interdepartmental communications, and related guest services. Upon completion, students should be able to demonstrate a basic understanding of current front office operating systems, including efficient and courteous guest services.

**HRM 120A Front Office Proced Lab**  
Class: 0  
Lab: 2  
Clinical: 0  
Credit: 1  
Prerequisites: None  
Corequisites: HRM 120  
This course is laboratory to accompany HRM 120. Emphasis is placed on practical computer applications of theory covered in HRM 120. Upon completion, students should be able to demonstrate a basic proficiency in computer-based, front office applications.

**HRM 124 Guest Service Management**  
Class: 2  
Lab: 2  
Clinical: 0  
Credit: 3  
Prerequisites: None  
Corequisites: None  
This course is designed to provide an introduction to the culture of dining room service management. Emphasis is placed on the dignity and psychology of service work, dining room organization/infrastructure, service delivery, and modeling management roles in a dining room environment. Upon completion, students should be able to demonstrate an understanding of the guest/server dynamic and apply these principles in a dining room setting.

**HRM 130 Bed and Breakfast Mgt.**  
Class: 3  
Lab: 0  
Clinical: 0  
Credit: 3  
Prerequisites: None  
Corequisites: None  
This course provides an overview of the management of bed and breakfast facilities. Emphasis is placed on lifestyle commitment, property needs, computer operations, business and marketing plans, customer service and facility management. Upon completion, students should be able to describe and apply the principles of management unique to the bed and breakfast industry.
HRM 135 Facilities Management  3 0 0 3
Prerequisites: None
Corequisites: None

This course introduces the basic elements of planning and designing hospitality facilities including environmental impacts, maintenance, and upkeep. Topics include equipment and plant preventive maintenance, engineering, interior design, space utilization, remodeling and expansion, and traffic and work flow patterns. Upon completion, students should be able to demonstrate an understanding of the planning, design, national certification, and maintenance of hospitality physical plants and equipment.

HRM 140 Legal Issues-Hospitality  3 0 0 3
Prerequisites: None
Corequisites: None

This course covers the rights and responsibilities that the law grants to or imposes upon the hospitality industry. Topics include federal and state regulations, historical and current practices, safety and security, risk management, loss prevention, relevant torts, and contracts. Upon completion, students should be able to demonstrate an understanding of the legal system and the concepts necessary to prevent or minimize organizational liability.

HRM 150 Hospitality Training  3 0 0 3
Prerequisites: None
Corequisites: None

This course introduces techniques and methodology involved in developing training programs. Topics include job specification, description and breakdown, training methods, coaching, evaluation, and management development. Upon completion, students should be able to produce job specifications, descriptions, and breakdowns and conduct technical training.

HRM 160 Info Systems for Hosp  2 2 0 3
Prerequisites: None
Corequisites: None

This course covers current technology and technological issues for the future as they apply to the hospitality industry. Emphasis is placed on the effect of technology on e-commerce, human resources, menu management, and hospitality management systems. Upon completion, students will be able to demonstrate competence in utilizing contemporary information application systems in a hospitality setting.

HRM 210 Meetings & Event Planning  3 0 0 3
Prerequisites: None
Corequisites: None

This course introduces concepts related to the planning and operation of conventions, trade shows, professional meetings, and foodservice events. Emphasis is placed on methods of marketing, selling, organizing, and producing conventions, events, and trade shows that will increase financial and environmental value. Upon completion, students should be able to demonstrate an understanding of management principles for multi-function, multi-day conferences and events.

HRM 215 Restaurant Management  3 0 0 3
Prerequisites: CUL 135 or HRM 124
Corequisites: HRM 215A

This course provides an overview of the various challenges and responsibilities encountered in managing a food and beverage operation. Topics include planning, administration, organization, accounting, marketing, and human resources from an integrated managerial viewpoint. Upon completion, students should be able to demonstrate an understanding of the operation of a restaurant.

HRM 215 A Restaurant Manage Lab  0 2 0 1
Prerequisites: CUL 135 or HRM 124
Corequisites: HRM 215

This course is a laboratory to accompany HRM 215. Emphasis is placed on practical applications of restaurant management principles. Upon completion, students should be able to demonstrate a basic proficiency in restaurant management applications.

HRM 220 Cost Control-Food & Bev  3 0 0 3
Prerequisites: A grade of "C" or better in MAT 060 or successful completion of DMA 010, DMA 020, and DMA 030
Corequisites: HRM 220A

This course introduces controls and accounting procedures as applied to costs in the hospitality industry. Topics include reports, cost control, planning and forecasting, control systems, financial statements, operational efficiencies, labor controls and scheduling. Upon completion, students should be able to demonstrate an understanding of food, beverage, and labor cost control systems for operational troubleshooting and problem solving.

HRM 220A Cost Control-Food & Bev Lab  0 2 0 1
Prerequisites: None
Corequisites: HRM 220

This course provides a laboratory experience for enhancing student skills in controls and purchasing procedures as applied to costs in the hospitality industry. Emphasis is placed on practical applications of reports, cost control, planning and forecasting, control systems, financial statements, operational efficiencies, labor controls and scheduling. Upon completion, students should be able to demonstrate proficiency in computer-based control applications.
**HRM 225 Beverage Management**  
Prerequisites: None  
Corequisites: None  
This course introduces the management of beverages served in hospitality operations. Topics include history and trends; service, procurement and storage; knowledge and control of wines and fermented/distilled beverages; and non-alcoholic beverages, coffees, and teas. Upon completion, students should be able to demonstrate an understanding of responsible alcohol service and the knowledge of beverages consumed in a hospitality operation.

**HRM 228 Mixology**  
Prerequisites: None  
Corequisites: None  
This course provides instruction and demonstration for the practice of bartending. Emphasis is placed on set-up, including equipment/supplies/glassware; and production/service of alcoholic beverages including, but not limited to, beer, wine, cocktails, mixed/blended drinks, and specialty products. Upon completion, students should be able to demonstrate the basics of mixing alcoholic beverages in a commercial bar, tavern or nightclub setting.

**HRM 230 Club & Resort Management**  
Prerequisites: None  
Corequisites: None  
This course introduces specific principles of managing a hospitality operation in a resort or club setting. Topics include operational efficiencies, resort and club marketing, recreational and sport activity management, and retail management. Upon completion, students should be able to demonstrate an understanding of the specialized skills involved in resort and club management.

**HRM 240 Marketing for Hospitality**  
Prerequisites: None  
Corequisites: None  
This course covers planning, organizing, directing, and analyzing the results of marketing programs for the hospitality industry. Emphasis is placed on target marketing, marketing mix, analysis, product and image development, use of current media, sales planning, advertising, public relations, and collateral materials. Upon completion, students should be able to apply the marketing process as it relates to the hospitality industry.

**HRM 245 Human Resource Mgmt-Hosp**  
Prerequisites: None  
Corequisites: None  
This course introduces a systematic approach to human resource management in the hospitality industry. Topics include training/development, staffing, selection, hiring, recruitment, evaluation, benefit administration, employee relations, labor regulations/laws, discipline, motivation, productivity, shift management, contract employees and organizational culture. Upon completion, students should be able to apply human resource management skills for the hospitality industry.

**HRM 260 Procurement for Hosp**  
Prerequisites: None  
Corequisites: None  
This course provides information for management decisions regarding needs analysis and fulfillment for hospitality operations. Emphasis is placed on supply chain sourcing, environmental impacts, procurement technologies, and packaging of products such as food, beverages, supplies, furniture, and equipment. Upon completion, students should be able to demonstrate competence in planning and executing the procurement function.

**HRM 275 Leadership-Hospitality**  
Prerequisites: None  
Corequisites: None  
This course introduces leadership traits, styles, and the roles and responsibilities of successful hospitality leaders while developing the student’s personal leadership skills. Topics include formal and informal hospitality leadership; defining effective and ineffective leadership behavior; and leadership organizational change and planning within the hospitality industry. Upon completion, students will be able to apply appropriate leadership actions in real-world situations ranging from local to global hospitality environments.

**HRM 280 Mgmt Problems-Hospitality**  
Prerequisites: HRM 110  
Corequisites: None  
This course is designed to introduce students to timely issues within the hospitality industry and is intended to move students into a managerial mindset. Emphasis is placed on problem-solving skills using currently available resources. Upon completion, students should be able to demonstrate knowledge of how hospitality management principles may be applied to real challenges facing industry managers.

**HRM 285 Service Projects-Hosp**  
Prerequisites: None  
Corequisites: None  
This course introduces the application of hospitality management through engaging in community service. Emphasis is placed on problem solving skills, critical thinking, and applying academic concepts while using limited resources. Upon completion, students should be able to plan and execute hospitality-related projects that meet community needs.
HUM 110 Technology and Society  3 0 0 3  
Prerequisites: Proficiency in Reading - A grade of “C” or better in ENG 095 OR a grade of “C” or better in ENG 090 OR minimum Accuplacer score of 80 on Reading  
Corequisites: None  
This course considers technological change from historical, artistic, and philosophical perspectives and its effect on human needs and concerns. Emphasis is placed on the causes and consequences of technological change. Upon completion, students should be able to critically evaluate the implications of technology. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement. This course may meet the SACS humanities/fine arts requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.

HUM 115 Critical Thinking  3 0 0 3  
Prerequisites: Proficiency in Reading AND Writing - A grade of “C” or better in ENG 095 OR a grade of “C” or better in ENG 090 AND RED 090 OR minimum Accuplacer scores of 80 on Reading and 86 on Writing  
Corequisites: None  
This course introduces the use of critical thinking skills in the context of human conflict. Emphasis is placed on information, problem solving, approaching cross-cultural perspectives, and resolving controversies and dilemmas. Upon completion, students should be able to demonstrate orally and in writing the use of critical thinking skills in the analysis of appropriate texts. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. This course may meet the SACS humanities/fine arts requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.

HUM 120 Cultural Studies  3 0 0 3  
Prerequisites: None  
Corequisites: None  
This course introduces the distinctive features of a particular culture. Topics include art, history, music, literature, politics, philosophy, and religion. Upon completion, students should be able to appreciate the unique character of the study culture. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. This course may meet the SACS humanities/fine arts requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.

HUM 121 The Nature of America  3 0 0 3  
Prerequisites: None  
Corequisites: None  
This course provides an interdisciplinary survey of the American cultural, social, and political experience. Emphasis is placed on the multicultural character of American society, distinctive qualities of various regions, and the American political system. Upon completion, students should be able to analyze significant cultural, social, and political aspects of American life. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. This course may meet the SACS humanities/fine arts requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.

HUM 122 Southern Culture  3 0 0 3  
Prerequisites: None  
Corequisites: None  
This course explores the major qualities that make the South a distinct region. Topics include music, politics, literature, art, religion, race relations, and the role of social class in historical and contemporary contexts. Upon completion, students should be able to identify the characteristics that distinguish Southern culture. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. This course may meet the SACS humanities/fine arts requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.

HUM 130 Myth in Human Culture  3 0 0 3  
Prerequisites: Proficiency in Reading - A grade of “C” or better in ENG 095 OR a grade of “C” or better in ENG 090 OR minimum Accuplacer score of 80 on Reading  
Corequisites: None  
This course provides an in-depth study of myths and legends. Topics include the varied sources of myths and their influence on the individual and society within diverse cultural contexts. Upon completion, students should be able to demonstrate a general familiarity with myths and a broad-based understanding of the influence of myths and legends on modern culture. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. This course may meet the SACS humanities/fine arts requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.

HUM 140 The History of Architecture  3 0 0 3  
Prerequisites: None  
Corequisites: None  
This course covers the political and religious influences upon architecture. Topics include specific historical buildings evidencing architectural advancement, with special emphasis upon modern architecture. Upon completion, students should be able to analyze and identify significant developments in architecture. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement. This course may meet the SACS humanities/fine arts requirement for AGE, AAS, DIP, or CER programs.
### COURSE DESCRIPTIONS

<table>
<thead>
<tr>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
</table>

**HUM 150 American Women’s Studies** 3 0 0 3  
Prerequisites: None  
Corequisites: None  
This course provides an interdisciplinary study of history, literature, and social roles of reflected American women from Colonial times to the present. Emphasis is placed on women’s roles as reflected in American language usage, education, law, the workplace, and mainstream culture. Upon completion, students should be able to identify and analyze the roles of women as reflected in various cultural forms. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. This course may meet the SACS humanities/fine arts requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.

**HUM 160 Introduction to Film** 2 2 0 3  
Prerequisites: Proficiency in Reading - A grade of “C” or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading  
Corequisites: None  
This course introduces the fundamental elements of film artistry and production. Topics include film styles, history, and production techniques, as well as the social values reflected in film art. Upon completion, students should be able to critically analyze the elements covered in relation to selected films. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. This course may meet the SACS humanities/fine arts requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.

**HUM 161 Advanced Film Studies** 2 2 0 3  
Prerequisites: HUM 160  
Corequisites: None  
This course provides an advanced study of film art and production, building on skills learned in HUM 160. Topics include advanced film production techniques, film genres, examination of master directors’ styles, and the relation of film to culture. Upon completion, students should be able to recognize and critically analyze advanced elements of film production. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. This course may meet the SACS humanities/fine arts requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.

**HUM 170 The Holocaust** 3 0 0 3  
Prerequisites: None  
Corequisites: None  
This course provides a survey of the destruction of European Jewry by the Nazis during World War II. Topics include the anti-Semitic ideology, bureaucratic structures, and varying conditions of European occupation and domination under the Third Reich. Upon completion, students should be able to demonstrate an understanding of the historical, social, religious, political, and economic factors which cumulatively resulted in the Holocaust. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement. This course may meet the SACS humanities/fine arts requirement for AGE, AAS, DIP, or CER programs.

**HUM 220 Human Values and Meaning** 3 0 0 3  
Prerequisites: ENG 111  
Corequisites: None  
This course presents some major dimensions of human experience as reflected in art, music, literature, philosophy, and history. Topics include the search for identity, the quest for knowledge, the need for love, the individual and society, and the meaning of life. Upon completion, students should be able to recognize interdisciplinary connections and distinguish between open and closed questions and between narrative and scientific models of understanding. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. This course may meet the SACS humanities/fine arts requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.

**HUM 230 Leadership Development** 0 3 0 3  
Prerequisites: ENG 111  
Corequisites: None  
This course explores the theories and techniques of leadership and group process. Emphasis is placed on leadership styles, theories of group dynamics, and the moral and ethical responsibilities of leadership. Upon completion, students should be able to identify and analyze a personal philosophy and style of leadership and integrate these concepts in various practical situations. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement. This course may meet the SACS humanities/fine arts requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.

**HYD 110 Hydraulics/Pneumatics I** 2 3 0 3  
Prerequisites: None  
Corequisites: None  
This course introduces the basic components and functions of hydraulic and pneumatic systems. Topics include standard symbols, pumps, control valves, control assemblies, actuators, Fluid Routing Lines, maintenance procedures, and switching and control devices. Upon completion, students should be able to understand the operation of a fluid power system, including design, application, and troubleshooting.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>HYD 112</td>
<td>Hydraul/Med/Heavy Duty</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>ISC 112</td>
<td>Industrial Safety</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>ISC 130</td>
<td>Intro to Quality Control</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ISC 278</td>
<td>cGMP Quality Systems</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>ITN 160</td>
<td>Principles of Web Design</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>JOU 110</td>
<td>Intro to Journalism</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>JOU 217</td>
<td>Feature/Editorial Writing</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>LEX 110</td>
<td>Intro to Paralegal Study</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
</tbody>
</table>

Prerequisites and Corequisites:

- **HYD 112 Hydraul/Med/Heavy Duty**: None
- **ISC 112 Industrial Safety**: None
- **ISC 130 Intro to Quality Control**: None
- **ISC 278 cGMP Quality Systems**: None
- **ITN 160 Principles of Web Design**: None
- **JOU 110 Intro to Journalism**: Proficiency in Reading AND Writing - A grade of “C” or better in ENG 095 OR a grade of “C” or better in ENG 090 AND RED 090 OR minimum Accuplacer scores of 80 on Reading and 86 on Writing
- **JOU 217 Feature/Editorial Writing**: ENG 111 and JOU 110
- **LEX 110 Intro to Paralegal Study**: None

This course introduces hydraulic theory and applications as applied to mobile equipment. Topics include component studies such as pumps, motors, valves, cylinders, filters, reservoirs, lines, and fittings. Upon completion, students should be able to identify, diagnose, test, and repair hydraulic systems using schematics and technical manuals.

This course introduces the principles of industrial safety. Emphasis is placed on industrial safety and OSHA regulations. Upon completion, students should be able to demonstrate knowledge of a safe working environment.

This course introduces the philosophies, principles, and techniques of managing quality. Topics include the functions, responsibilities, structures, costs, reports, personnel, and vendor-customer relationships associated with quality control and management. Upon completion, students should be able to demonstrate an understanding of quality control and management.

This course focuses on the development, implementation, and on-going maintenance of a quality system in a cGMP environment. Topics include the cGMP standard, components of cGMP quality systems, quality function roles and training, development of documentation such as SOPs, and system review procedures. Upon completion, the student should be able to identify the components of a quality system and develop a quality system manual utilizing the cGMP standard.

This course covers the basics of persuasive writing for community newspapers and other print media. Emphasis is placed on writing features, reviews, and editorials including audience analysis, appropriate language, effective supporting details, completeness, and accuracy. Upon completion, students should be able to write effective feature stories, reviews, and editorials.

This course introduces the paralegal profession and the legal system. Topics include regulations and concepts, ethics, case analysis, legal reasoning, career opportunities, certification, professional organizations, and other related topics. Upon completion, students should be able to explain the role of the paralegal and identify the skills, knowledge, and ethics required of legal assistants.
LEX 120 Legal Research/Writing I  2 2 0 3  
Prerequisites: None  
Corequisites: None  
This course introduces the techniques of legal research and writing. Emphasis is placed on locating, analyzing, applying, and updating sources of law; effective legal writing, including proper citation; and the use of electronic research methods. Upon completion, students should be able to perform legal research and writing assignments using techniques covered in the course.

LEX 121 Legal Research/Writing II  2 2 0 3  
Prerequisites: LEX 120  
Corequisites: None  
This course covers advanced topics in legal research and writing. Topics include more complex legal issues and assignments involving preparation of legal memos, briefs, and other documents and the advanced use of electronic research methods. Upon completion, students should be able to perform legal research and writing assignments using techniques covered in the course.

LEX 130 Civil Injuries  3 0 0 3  
Prerequisites: None  
Corequisites: None  
This course covers traditional tort concepts and the evolving body of individual rights created by statute. Topics include intentional and non-intentional torts with emphasis on negligence, strict liability, civil rights, workplace and environmental liability, remedies, and damages. Upon completion, students should be able to recognize, explain, and evaluate elements of civil injuries and related defenses.

LEX 140 Civil Litigation I  3 0 0 3  
Prerequisites: None  
Corequisites: None  
This course introduces the structure of the legal system and the rules governing civil litigation. Topics include jurisdiction state and federal rules of civil procedure and evidence. Upon completion, students should be able to assist an attorney in pre-litigation matters and preparation of pleadings and motions.

LEX 150 Commercial Law I  2 2 0 3  
Prerequisites: None  
Corequisites: None  
This course covers legally enforceable agreements, forms of organization, and selected portions of the Uniform Commercial Code. Topics include drafting and enforcement of contracts, leases, and related documents and selection and implementation of business organization forms, sales, and commercial papers. Upon completion, students should be able to apply the elements of a contract, prepare various business documents, and understand the role of commercial paper.

LEX 151 Commercial Law II  3 0 0 3  
Prerequisites: LEX 150  
Corequisites: None  
This course is a continuation of LEX 150 and covers advanced topics in Business and Commercial Law. Topics include agency and employment, insurance, computer law, intellectual property, personal property and bailment, corporate organizations and bankruptcy. Upon completion, students will understand and be able to apply legal principles governing these topics and be able to draft a variety of financial instruments.

LEX 160 Criminal Law & Procedure  2 2 0 3  
Prerequisites: None  
Corequisites: None  
This course introduces substantive criminal law and procedural rights of the accused. Topics include elements of state/federal crimes, defenses, constitutional issues, pre-trial and trial process, and other related topics. Upon completion, students should be able to explain elements of specific crimes and assist an attorney in preparing a criminal case.

LEX 170 Administrative Law  2 0 0 2  
Prerequisites: None  
Corequisites: None  
This course covers the scope, authority, and regulatory operations of various federal, state, and local administrative agencies. Topics include social security, worker’s compensation, unemployment, zoning, and other related topics. Upon completion, students should be able to research sources of administrative law, investigate, and assist in representation of clients before administrative agencies.

LEX 210 Real Property I  3 0 0 3  
Prerequisites: None  
Corequisites: None  
This course introduces the study of real property law. Topics include the distinction between real and personal property, various estates, mechanics of conveyance and encumbrance, recordation, special proceedings, and other related topics. Upon completion, students should be able to identify estates, forms of deeds, requirements for recording, and procedures to enforce rights to real property.

LEX 211 Real Property II  1 4 0 3  
Prerequisites: LEX 210  
Corequisites: None  
This course continues the study of real property law relating to title examination and preparation of closing documents. Topics include use of courthouse and other public records in title examination and preparation of documents required in real estate transactions and closings. Upon completion, students should be able to plot/draft a description, perform complete title examination, draft closing documents including title insurance forms, and prepare disbursement reconciliation.
LEX 214 Investigat & Trial Prep
Prerequisites: None
Corequisites: None
This course introduces the fundamentals of investigation. Topics include compiling/assembling data for cases; investigative planning/information gathering techniques; locating/interviewing witnesses; collection/preserving/evaluating sufficiency/admissibility of evidence; preparation of reports; and evidence presentation at depositions/court proceedings. Upon completion, students should be able to plan/use investigative checklists, understand/demonstrate investigative techniques, prepare reports, and enhance verbal and interpersonal communications skills and interviewing techniques.

LEX 240 Family Law
Prerequisites: None
Corequisites: None
This course covers laws governing domestic relations. Topics include marriage, separation, divorce, child custody, support, property division, adoption, domestic violence, and other related topics. Upon completion, students should be able to interview clients, gather information, and draft documents related to family law.

LEX 250 Wills, Estates, & Trusts
Prerequisites: None
Corequisites: None
This course covers various types of wills, trusts, probate, estate administration, and intestacy. Topics include types of wills and execution requirements, caveats and dissents, intestate succession, inventories and accountings, distribution and settlement, and other related topics. Upon completion, students should be able to draft simple wills, prepare estate forms, understand administration of estates including taxation, and explain terms regarding trusts.

LEX 260 Bankruptcy & Collections
Prerequisites: None
Corequisites: None
This course provides an overview of the laws of bankruptcy and the rights of creditors and debtors. Topics include bankruptcy procedures and estate management, attachment, claim and delivery, repossessions, foreclosure, garnishment, and post-judgment collection procedure. Upon completion, students should be able to prepare and file bankruptcy forms, collection letters, statutory liens, and collection of judgments.

LEX 270 Law Office Mgt/Technology
Prerequisites: None
Corequisites: None
This course provides an overview of law office management and organization. Topics include office forms, filing systems, billing/time keeping, computer systems, calendar systems, library administration, case management, office/personnel procedures, ethics, and technology. Upon completion, students should be able to set up and maintain various law office systems, monitor case progress, and supervise non-lawyer personnel.

LEX 271 Law Office Writing
Prerequisites: None
Corequisites: None
This course covers the basics of writing for the law office including the drafting of general correspondence, the briefing of cases, and the preparation of settlement brochures. Emphasis is placed on legal vocabulary in the context of letter writing, briefing judicial opinions, and the preparation of the settlement brochure. Upon completion, students should be able to draft letters to clients, opposing counsel, government entities, and insurance companies and prepare the settlement brochure.

LEX 280 Ethics & Professionalism
Prerequisites: None
Corequisites: None
This course reinforces legal ethics and the role of the paralegal in a professional work environment. Topics include a review of ethics, employment opportunities, and search techniques; paralegal certification; and other related topics. Upon completion, students should be able to understand the paralegal’s role in the ethical practice of law.

LEX 287 CLA Review Seminar
Prerequisites: LEX 210, LEX 211
Corequisites: None
This course is designed to prepare students for voluntary national certification sponsored by the National Association of Legal Assistants to demonstrate significant competencies in paralegalism. Topics include Communications, Ethics, Human Relations, Interviewing Techniques, Judgment and Analytical Analysis, Legal Research, Legal Terminology, General Law and nine tested specialty areas of law. Upon completion, students should be able to demonstrate that they are eligible to take the NALA’s Certified Legal Assistant Exam.

LEX 289 U.S. Constitutional Law
Prerequisites: LEX 110, LEX 120, and LEX 140
Corequisites: None
This course covers the creation, content, and interpretation of the Constitution of the United States and its amendments as it relates to civil law and practice. Topics include constitutional formation, structure, court interpretation and the implication of legal decision for legal practitioners. Upon completion, students should be able to discuss the formation of the Constitution, its interpretation and application to the practice of civil law.
<table>
<thead>
<tr>
<th>COURSE DESCRIPTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LSG 111 Basic Landscape Tech</strong></td>
</tr>
<tr>
<td>Prerequisites: None</td>
</tr>
<tr>
<td>Corequisites: LSG 121 or LSG 122 or LSG 123</td>
</tr>
<tr>
<td>This course introduces basic principles essential to sustainable landscape gardening. Topics include soils, propagation, watering, fertilizing, pruning, pest control, and planting. Upon completion, students should be able to perform basic sustainable gardening techniques essential to maintaining a sustainable landscape.</td>
</tr>
</tbody>
</table>

| **LSG 121 Fall Gardening Lab** |
| Prerequisites: None |
| Corequisites: LSG 111 |
| This course provides basic hands-on experience in fall gardening techniques. Emphasis is placed on pruning, irrigation, planting, fertilizing, pest control, equipment operation, and turf maintenance. Upon completion, students should be able to perform various techniques essential to maintaining the fall landscape. |

| **LSG 122 Spring Gardening Lab** |
| Prerequisites: None |
| Corequisites: None |
| This course provides familiarization with basic gardening techniques by performing practical hands-on exercises required for the spring season. Emphasis is placed on pruning, irrigation, planting, fertilizing, pest control, equipment operation, turf maintenance, and landscape construction. Upon completion, students should be able to satisfactorily perform various practices essential to maintaining the landscape in the spring season. |

| **LSG 123 Summer Gardening Lab** |
| Prerequisites: None |
| Corequisites: None |
| This course provides basic hands-on experience in summer gardening techniques. Emphasis is placed on pruning, irrigation, planting, fertilizing, pest control, equipment operation, turf maintenance, landscape construction, and maintaining fruits and vegetables. Upon completion, students should be able to perform various techniques essential to maintaining the summer landscape. |

| **LSG 231 Landscape Supervision** |
| Prerequisites: LSG 123 and HOR 260 |
| Corequisites: None |
| This course provides experience in planning, implementing, and supervising various landscape management projects. Emphasis is placed on supervisory skills, organizing, and scheduling. Upon completion, students should be able to supervise employees in various landscape management jobs. |

| **LSG 232 Garden Management** |
| Prerequisites: LSG 123 and HOR 260 |
| Corequisites: None |
| This course covers the implementation of knowledge gained in previous landscape gardening courses. Emphasis is placed on scheduling, designing, renovation, and plant management. Upon completion, students should be able to collate the material learned in the Landscape Gardening curriculum and apply it to various landscape gardening situations. |

| **MAC 111 Machining Technology I** |
| Prerequisites: Proficiency in Reading - A grade of “C” or better in ENG 085 or RED 080 OR minimum Accuplacer score of 57 on Reading |
| Corequisites: None |
| This course introduces machining operations as they relate to the metalworking industry. Topics include machine shop safety, measuring tools, lathes, drilling machines, saws, milling machines, bench grinders, and layout instruments. Upon completion, students should be able to safely perform the basic operations of measuring, layout, drilling, sawing, turning, and milling. |

| **MAC 112 Machining Technology II** |
| Prerequisites: MAC 111 |
| Corequisites: None |
| This course provides additional instruction and practice in the use of precision measuring tools, lathes, milling machines, and grinders. Emphasis is placed on setup and operation of machine tools including the selection and use of work holding devices, speeds, feeds, cutting tools, and coolants. Upon completion, students should be able to perform basic procedures on precision grinders and advanced operations of measuring, layout, drilling, sawing, turning, and milling. |

| **MAC 113 Machining Technology III** |
| Prerequisites: MAC 112 and MEC 231 |
| Corequisites: None |
| This course provides an introduction to advanced and special machining operations. Emphasis is placed on working to specified tolerances with special and advanced setups. Upon completion, students should be able to produce a part to specifications. This class will also incorporate practical applications of computer numerical control programming and operations. |

| **MAC 121 Intro to CNC** |
| Prerequisites: Proficiency in Reading - A grade of “C” or better in ENG 085 or RED 080 OR minimum Accuplacer score of 57 on Reading |
| Corequisites: None |
| This course introduces the concepts and capabilities of computer numerical control machine tools. Topics include setup,
operation, and basic applications. Upon completion, students should be able to explain operator safety, machine protection, data input, program preparation, and program storage.

**MAC 122 CNC Turning**

<table>
<thead>
<tr>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
<td>0</td>
<td>2</td>
</tr>
</tbody>
</table>

Prerequisites: MAC 124
Corequisites: None

This course introduces the programming, setup, and operation of CNC turning centers. Topics include programming formats, control functions, program editing, part production, and inspection. Upon completion, students should be able to manufacture simple parts using CNC turning centers.

**MAC 124 CNC Milling**

<table>
<thead>
<tr>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
<td>0</td>
<td>2</td>
</tr>
</tbody>
</table>

Prerequisites: MAC 111 and MAC 121 or MEC 111
Corequisites: None

This course introduces the manual programming, setup, and operation of CNC machining centers. Topics include programming formats, control functions, program editing, part production, and inspection. Upon completion, students should be able to manufacture simple parts using CNC machining centers.

**MAC 131 Blueprint Reading/Mach I**

<table>
<thead>
<tr>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
</tbody>
</table>

Prerequisites: Proficiency in Reading - A grade of “C” or better in ENG 085 or RED 080 OR minimum Accuplacer score of 57 on Reading
Corequisites: None

This course covers the basic principles of blueprint reading and sketching. Topics include multi-view drawings; interpretation of conventional lines; and dimensions, notes, and thread notations. Upon completion, students should be able to interpret basic drawings, visualize parts, and make pictorial sketches.

**MAC 132 Blueprint Reading/Mach II**

<table>
<thead>
<tr>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
</tbody>
</table>

Prerequisites: MAC 131
Corequisites: None

This course introduces more complex industrial blueprints. Emphasis is placed on auxiliary views, section views, violations of true projection, special views, applications of GD & T, and interpretation of complex parts. Upon completion, students should be able to read and interpret complex industrial blueprints.

**MAC 152 Adv Machining Calc**

<table>
<thead>
<tr>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
</tbody>
</table>

Prerequisites: MAT 120
Corequisites: None

This course combines mathematical functions with practical machine shop applications and problems. Emphasis is placed on gear ratios, lead screws, indexing problems, and their applications in the machine shop. Upon completion, students should be able to calculate solutions to machining problems. Additionally, practical applications of right triangle trigonometry will be covered.

**MAC 222 Advanced CNC Turning**

<table>
<thead>
<tr>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
<td>0</td>
<td>2</td>
</tr>
</tbody>
</table>

Prerequisites: MAC 122
Corequisites: None

This course covers advanced methods in setup and operation of CNC turning centers. Emphasis is placed on programming and production of complex parts. Upon completion, students should be able to demonstrate skills in programming, operations, and setup of CNC turning centers.

**MAC 224 Advanced CNC Milling**

<table>
<thead>
<tr>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
<td>0</td>
<td>2</td>
</tr>
</tbody>
</table>

Prerequisites: MAC 124
Corequisites: None

This course covers advanced methods in setup and operation of CNC machining centers. Emphasis is placed on programming and production of complex parts. Upon completion, students should be able to demonstrate skills in programming, operations, and setup of CNC machining centers.

**MAC 233 Appl in CNC Machining**

<table>
<thead>
<tr>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>12</td>
<td>0</td>
<td>6</td>
</tr>
</tbody>
</table>

Prerequisites: MAC 113, MAC 224 and MEC 232
Corequisites: MAC 222

This capstone course provides students the opportunity to apply skills learned throughout the curriculum. Emphasis is placed on production of parts and assemblies using modern CNC machine tools. Upon completion, students should be able to manufacture complex parts using a variety of CNC machine tools.

**MAC 241 Jigs & Fixtures I**

<table>
<thead>
<tr>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>6</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

Prerequisites: MAC 112 and MEC 231
Corequisites: None

This course introduces the application and use of jigs and fixtures. Emphasis is placed on design and manufacture of simple jigs and fixtures. Upon completion, students should be able to design and build simple jigs and fixtures. Additionally, computer aided manufacturing software, along with computer controlled machine tools will be used in order to design and manufacture jigs and fixtures.

**MAC 242 Jigs & Fixtures II**

<table>
<thead>
<tr>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>9</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

Prerequisites: MAC 241
Corequisites: None

This course provides continued study in the application of jigs and fixtures. Emphasis is placed on design and manufacture of jigs and fixtures. Upon completion, students should be able to design and build complex jigs and fixtures. Additionally, computer aided manufacturing software, along with computer controlled machine tools, will be used in order to design and manufacture jigs and fixtures.
MAT 115 Mathematical Models 2 2 0 3
Prerequisites: a. A grade of “C” or better in MAT 060 OR successful completion of DMA 010, DMA 020, and DMA 030
b. A grade of “C” or better in MAT 070 or MAT 080 or MAT 090 or MAT 095 or successful completion of one of the following: MAT 121 or MAT 120 or MAT 161 or MAT 171 or MAT 170 or successful completion of DMA 040 and DMA 050
Corequisites: None

This course develops the ability to utilize mathematical skills and technology to solve problems at a level found in non-mathematics-intensive programs. Topics include applications to percent, ratio and proportion, formulas, statistics, functional notation, linear functions, probability, sampling techniques, scatter plots, and modeling. Upon completion, students should be able to solve practical problems, reason and communicate with mathematics, and work confidently, collaboratively, and independently. This course may meet the SACS mathematics requirement for AGE, AAS, DIP, or CER programs.

MAC 245 Mold Construction I 2 6 0 4
Prerequisites: MEC 232
Corequisites: None

This course introduces the principles of mold making. Topics include types, construction, and application of molds. Upon completion, students should be able to design and build simple molds.

MAC 248 Production Procedures 1 2 0 2
Prerequisites: MAC 113 and MAC 152
Corequisites: None

This course covers product planning and control and scheduling and routing of operations. Topics include cost-effective production methods, dimensional and statistical quality control, and the tooling and machines required for production. Upon completion, students should be able to plan, set up, and produce cost-effective quality machined parts.

MAT 101 Applied Mathematics I 2 2 0 3
Prerequisites: A grade of “C” or better in MAT 060 or MAT 070 or MAT 080 or MAT 090 or MAT 095 or successful completion of DMA 010, DMA 020, and DMA 030
Corequisites: None

This course is a comprehensive review of arithmetic with basic algebra designed to meet the needs of certificate and diploma programs. Topics include arithmetic and geometric skills used in measurement, ratio and proportion, exponents and roots, applications of percent, linear equations, formulas, and statistics. Upon completion, students should be able to solve practical problems in their specific areas of study. This course may meet the SACS mathematics requirement for DIP and CER degree programs.

MAT 115 Mathematical Models 2 2 0 3
Prerequisites: a. A grade of “C” or better in MAT 060 OR successful completion of DMA 010, DMA 020, and DMA 030
b. A grade of “C” or better in MAT 070 or MAT 080 or MAT 090 or MAT 095 or successful completion of one of the following: MAT 121 or MAT 120 or MAT 161 or MAT 171 or MAT 170 or successful completion of DMA 040 and DMA 050
Corequisites: None

This course develops the ability to utilize mathematical skills and technology to solve problems at a level found in non-mathematics-intensive programs. Topics include applications to percent, ratio and proportion, formulas, statistics, functional notation, linear functions, probability, sampling techniques, scatter plots, and modeling. Upon completion, students should be able to solve practical problems, reason and communicate with mathematics, and work confidently, collaboratively, and independently. This course may meet the SACS mathematics requirement for AGE, AAS, DIP, or CER programs.

MAT 120 Geometry and Trigonometry 2 2 0 3
Prerequisites: a. A grade of “C” or better in MAT 060 or successful completion of DMA 010, DMA 020, and DMA 030
b. Proficiency in Elementary Algebra. A grade of “C” or better in MAT 070 or MAT 080 or MAT 090 or MAT 095 or successful completion of one of the following: MAT 121 or MAT 161 or MAT 171 or MAT 175 or successful completion of DMA 040
Corequisites: None

This course introduces the concepts of plane trigonometry and geometry with emphasis on applications to problem solving. Topics include the basic definitions and properties of plane and solid geometry, area and volume, right triangle trigonometry, and oblique triangles. Upon completion, students should be able to solve applied problems both independently and collaboratively using technology. This course may meet the SACS mathematics requirement for AGE, AAS, DIP, or CER programs.

MAT 121 Algebra/Trigonometry I 2 2 0 3
Prerequisites: a. A grade of “C” or better in MAT 060 or successful completion of DMA 010, DMA 020, and DMA 030
b. A grade of “C” or better in MAT 070 or MAT 080 or MAT 090 or MAT 095 or successful completion of one of the following: MAT 121 or MAT 161 or MAT 171 or MAT 175 or successful completion of DMA 040 and DMA 050
Corequisites: None

This course provides an integrated approach to technology and the skills required to manipulate, display, and interpret mathematical functions and formulas used in problem solving. Topics include simplification, evaluation, and solving of algebraic and radical functions; complex numbers; right triangle trigonometry; systems of equations; and the use of technology. Upon completion, students should be able to demonstrate an understanding of the use of mathematics and technology to solve problems and analyze and communicate results. This course may meet the SACS mathematics requirement for AGE, AAS, DIP, or CER programs.

MAT 122 Algebra/Trigonometry II 2 2 0 3
Prerequisites: MAT 121 or MAT 161 or MAT 171 or MAT 175
Corequisites: None

This course extends the concepts covered in MAT 121 to include additional topics in algebra, function analysis, and trigonometry. Topics include exponential and logarithmic functions, translation and scaling of functions, Sine Law, Cosine Law, complex numbers, vectors, and statistics. Upon completion, students should be able to demonstrate an understanding of the use of technology to solve problems and to analyze and communicate results. This course may meet the SACS mathematics requirement for AGE, AAS, DIP, or CER programs.
### MAT 140 Survey of Mathematics

**Class** | **Lab** | **Clinical** | **Credit**
--- | --- | --- | ---
3 | 0 | 0 | 3

**Prerequisites:**
- A grade of "C" or better in MAT 060 or successful completion of DMA 010, DMA 020, and DMA 030
- A grade of "C" or better in MAT 070 or MAT 080 or MAT 090 or MAT 095 or successful completion of one of the following: MAT 120 or MAT 121 or MAT 161 or MAT 171 or MAT 175 or successful completion of DMA 040

**Corequisites:** None

This course provides an introduction in a non-technical setting to selected topics in mathematics. Topics may include, but are not limited to, sets, logic, probability, statistics, matrices, mathematical systems, geometry, topology, mathematics of finance, and modeling. Upon completion, students should be able to understand a variety of mathematical applications, think logically, and be able to work collaboratively and independently. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics. This course may meet the SACS mathematics requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.

### MAT 141 Mathematical Concepts I

**Class** | **Lab** | **Clinical** | **Credit**
--- | --- | --- | ---
3 | 0 | 0 | 3

**Prerequisites:**
- A grade of "C" or better in MAT 060 or successful completion of DMA 010, DMA 020, and DMA 030
- A grade of "C" or better in MAT 080 or MAT 090 or MAT 095 OR successful completion of one of the following: MAT 120 or MAT 121 or MAT 161 or MAT 171 or MAT 175 or successful completion of DMA 040.

**Corequisites:** None

This course is the first of a two-course sequence that develops a deeper understanding and appreciation of the basic concepts of mathematics. Emphasis is placed on sets, logic, number bases, elementary number theory, introductory algebra, measurement including metrics, and problem solving. Upon completion, students should be able to communicate orally and in writing these basic mathematical concepts. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics. This course may meet the SACS mathematics requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.

### MAT 142 Mathematical Concepts II

**Class** | **Lab** | **Clinical** | **Credit**
--- | --- | --- | ---
3 | 0 | 0 | 3

**Prerequisites:** MAT 141

**Corequisites:** None

This course is the second of a two-course sequence that develops a deeper understanding and appreciation of the basic concepts of mathematics. Emphasis is placed on probability, statistics, functions, introductory geometry, and mathematics of finance. Upon completion, students should be able to communicate orally and in writing these basic mathematical concepts and utilize technology as a mathematical tool. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics. This course may meet the SACS mathematics requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.

### MAT 155 Statistical Analysis

**Class** | **Lab** | **Clinical** | **Credit**
--- | --- | --- | ---
3 | 0 | 0 | 3

**Prerequisites:**
- Proficiency in Reading
- A grade of “C” or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading
- A grade of “C” or better in MAT 060 or successful completion of DMA 010, DMA 020, and DMA 030
- A grade of “C” or better in MAT 080 or MAT 090 or MAT 095 or successful completion of one of the following: MAT 120 or MAT 121 or MAT 161 or MAT 171 or MAT 175 or successful completion of DMA 040 and DMA 050

**Corequisites:** None

This course is an introduction to descriptive and inferential statistics. Topics include sampling, distributions, plotting data, central tendency, dispersion, Central Limits Theorem, confidence intervals, hypothesis testing, correlations, regressions, and multinomial experiments. Upon completion students should be able to describe data and test inferences about populations using sampling data. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural science/mathematics. This course may meet the SACS mathematics requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.

### MAT 171 Precalculus Algebra

**Class** | **Lab** | **Clinical** | **Credit**
--- | --- | --- | ---
3 | 0 | 0 | 3

**Prerequisites:**
- A grade of “C” or better in MAT 060 or successful completion of DMA 010, DMA 020, and DMA 030
- A grade of “C” or better in MAT 080 or MAT 090 or MAT 095 or successful completion of MAT 161 or successful completion of DMA 040, DMA 050, DMA 060, DMA 070, and DMA 080

**Corequisites:** None

This is the first of two courses designed to emphasize topics which are fundamental to the study of calculus. Emphasis is placed on equations and inequalities, functions (linear, polynomial, rational), systems of equations and inequalities, and parametric equations. Upon completion, students should be able to solve practical problems and use appropriate models for analysis and predictions. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics. This course may meet the SACS mathematics requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.
MAT 172 Precalculus Trigonometry  
Prerequisites: MAT 171  
Corequisites: None  
This is the second of two courses designed to emphasize topics which are fundamental to the study of calculus. Emphasis is placed on properties and applications of transcendental functions and their graphs, right and oblique triangle trigonometry, conic sections, vectors and polar coordinates. Upon completion, students should be able to solve practical problems and use appropriate models for analysis and prediction. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement. This course may meet the SACS mathematics requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.  

MAT 175 Precalculus  
Prerequisites: a. A grade of “C” or better in MAT 060 or successful completion of DMA010, DMA020, and DMA 030  
b. A grade of “C” or better in MAT 080 or MAT 090 or MAT 095 or successful completion of MAT 161 or successful completion of DMA 040, DMA 050, DMA 060, DMA 070, and DMA 080  
Corequisites: None  
This course provides an intense study of the topics which are fundamental to the study of calculus. Emphasis is placed on functions and their graphs with special attention to polynomial, rational, exponential, logarithmic and trigonometric functions, and analytic trigonometry. Upon completion, students should be able to solve practical problems and use appropriate models for analysis and prediction. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics. This course may meet the SACS mathematics requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.  

MAT 263 Brief Calculus  
Prerequisites: MAT 161 or MAT 171 or MAT 175  
Corequisites: None  
This course is designed for students needing only one semester of calculus. Topics include functions, graphing, differentiation, and integration with emphasis on applications drawn from business, economics, and biological and behavioral sciences. Upon completion, students should be able to demonstrate an understanding of the use of basic calculus and technology to solve problems and to analyze and communicate results. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics. This course may meet the SACS mathematics requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.

MAT 271 Calculus I  
Prerequisites: MAT 172 or MAT 175  
Corequisites: None  
This course covers in depth the differential calculus portion of a three-course calculus sequence. Topics include limits, continuity, derivatives, and integrals of algebraic and transcendental functions of one variable, with applications. Upon completion, students should be able to apply differentiation and integration techniques to algebraic and transcendental functions. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics. This course may meet the SACS mathematics requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.

MAT 272 Calculus II  
Prerequisites: MAT 271  
Corequisites: None  
This course provides a rigorous treatment of integration and is the second calculus course in a three-course sequence. Topics include applications of definite integrals, techniques of integration, indeterminate forms, improper integrals, infinite series, conic sections, parametric equations, polar coordinates, and differential equations. Upon completion, students should be able to use integration and approximation techniques to solve application problems. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics. This course may meet the SACS mathematics requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.

MAT 273 Calculus III  
Prerequisites: MAT 272  
Corequisites: None  
This course covers the calculus of several variables and is third calculus course in a three-course sequence. Topics include functions of several variables, partial derivatives, multiple integrals, solid analytical geometry, vector-valued functions, and line and surface integrals. Upon completion, students should be able to solve problems involving vectors and functions of several variables. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics. This course may meet the SACS mathematics requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.

MEC 110 Intro to CAD/CAM  
Prerequisites: MEC 111 and DFT 151  
Corequisites: None  
This course introduces CAD/CAM. Emphasis is placed on transferring part geometry from CAD to CAM for the development of a CNC-ready program. Upon completion, students should be able to use CAD/CAM software to produce a CNC program.
<table>
<thead>
<tr>
<th>Course Title</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEC 111 Machine Processes I</td>
<td>1</td>
<td>4</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Prerequisites:</td>
<td>None</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corequisites:</td>
<td>None</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>This course introduces shop safety, hand tools, machine processes, measuring instruments, and the operation of machine shop equipment. Topics include use and care of tools, safety, measuring tools, and the basic setup and operation of common machine tools. Upon completion, students should be able to safely machine simple parts to specified tolerances.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEC 112 Machine Processes II</td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Prerequisites:</td>
<td>MEC 111</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corequisites:</td>
<td>None</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>This course covers advanced use of milling machines and lathes. Emphasis is placed on safety and compound setup of milling machines and lathes for manufacture of projects with a specified fit. Upon completion, students should be able to demonstrate proper procedures for manufacture of assembled parts.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEC 130 Mechanisms</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Prerequisites:</td>
<td>None</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corequisites:</td>
<td>None</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>This course introduces the purpose and action of various mechanical devices. Topics include cams, cables, gear trains, differentials, screws, belts, pulleys, shafts, levers, lubricants, and other devices used to transmit or control signals. Upon completion, students should be able to analyze, maintain, and troubleshoot the components of mechanical systems.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEC 145 Mfg Materials I</td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Prerequisites:</td>
<td>None</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corequisites:</td>
<td>None</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>This course introduces a variety of manufacturing materials and common processing techniques. Emphasis is placed on the processing, testing, and application of materials such as wood, metals, plastics, ceramics, and composites. Upon completion, students should be able to demonstrate an understanding of fundamental engineering applications for a variety of materials, including their process capabilities and limitations.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEC 180 Engineering Materials</td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Prerequisites:</td>
<td>None</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corequisites:</td>
<td>None</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>This course covers the physical and mechanical properties of materials. Topics include testing, heat treating, ferrous and non-ferrous metals, plastics, composites, and material selection. Upon completion, students should be able to specify basic tests and properties and select appropriate materials on the basis of specific properties.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEC 231 Comp-Aided Manufact I</td>
<td>1</td>
<td>4</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Prerequisites:</td>
<td>MAC 124 and MAC 132</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corequisites:</td>
<td>None</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>This course introduces computer-aided design/manufacturing (CAD / CAM) applications and concepts. Topics include software, programming, data transfer and verification, and equipment setup. Upon completion, students should be able to produce parts using CAD / CAM applications.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEC 232 Comp-Aided Manufact II</td>
<td>1</td>
<td>4</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Prerequisites:</td>
<td>MEC 231</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corequisites:</td>
<td>None</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>This course provides an in-depth study of CAM applications and concepts. Emphasis is placed on the manufacturing of complex parts using computer-aided manufacturing software. Upon completion, students should be able to manufacture complex parts using CAM software.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEC 265 Fluid Mechanics</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Prerequisites:</td>
<td>None</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corequisites:</td>
<td>None</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>This course covers the physical behavior of fluids and fluid systems. Topics include fluid statics and dynamics, laminar and turbulent flow, Bernoulli’s Equation, components, applications, and other related topics. Upon completion, students should be able to apply fluid power principles to practical applications.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MED 118 Medical Law and Ethics</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Prerequisites:</td>
<td>Proficiency in Reading - A grade of “C” or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corequisites:</td>
<td>None</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>This course covers legal relationships of physicians and patients, contractual agreements, professional liability, malpractice, medical practice acts, informed consent, and bioethical issues. Emphasis is placed on legal terms, professional attitudes, and the principles and basic concepts of ethics and laws involved in providing medical services. Upon completion, students should be able to meet the legal and ethical responsibilities of a multi-skilled health professional.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MED 121 Medical Terminology I</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Prerequisites:</td>
<td>None</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corequisites:</td>
<td>None</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>This course introduces prefixes, suffixes, and word roots used in the language of medicine. Topics include medical vocabulary and the terms that relate to the anatomy, physiology, pathological conditions, and treatment of selected systems. Upon completion, students should be able to pronounce, spell, and define medical terms as related to selected body systems and their pathological disorders.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
COURSE DESCRIPTIONS

MED 122 Medical Terminology II  3 0 0 3
Prerequisites:  MED 121
Corequisites:  None

This course is the second in a series of medical terminology courses. Topics include medical vocabulary and the terms that relate to the anatomy, physiology, pathological conditions, and treatment of selected systems. Upon completion, students should be able to pronounce, spell, and define medical terms as related to selected body systems and their pathological disorders.

MED 134 Medical Transcription  2 2 0 3
Prerequisites:  a. MED 121
b. OST 136
c. BIO 163 or BIO 168
Corequisites:  None

This course provides the basic knowledge, understanding, and skills required to complete medical reports and transcribe medical dictation. Emphasis is placed on correct punctuation, capitalization, and spelling. Upon completion, students should be able to demonstrate competence in medical transcription.

MKT 120 Principles of Marketing  3 0 0 3
Prerequisites:  None
Corequisites:  None

This course introduces principles and problems of marketing goods and services. Topics include promotion, placement, and pricing strategies for products. Upon completion, students should be able to apply marketing principles in organizational decision making.

MKT 121 Retailing  3 0 0 3
Prerequisites:  None
Corequisites:  None

This course examines the role of retailing in the economy. Topics include the development of present retail structure, functions performed, effective operations, and managerial problems resulting from current economic and social trends. Upon completion, students should be able to demonstrate an understanding of the basic principles of retailing.

MKT 123 Fundamentals of Selling  3 0 0 3
Prerequisites:  MKT 120
Corequisites:  None

This course is designed to emphasize the necessity of selling skills in a modern business environment. Emphasis is placed on sales techniques involved in various types of selling situations. Upon completion, students should be able to demonstrate an understanding of the techniques covered.

MKT 223 Customer Service  3 0 0 3
Prerequisites:  None
Corequisites:  None

This course stresses the importance of customer relations in the business world. Emphasis is placed on learning how to respond to complex customer requirements and to efficiently handle stressful situations. Upon completion, students should be able to demonstrate the ability to handle customer relations.

MKT 224 International Marketing  3 0 0 3
Prerequisites:  None
Corequisites:  None

This course covers the basic concepts of international marketing activity and theory. Topics include product promotion, placement, and pricing strategies in the international marketing environment. Upon completion, students should be able to demonstrate a basic understanding of the concepts covered.

MNT 110 Intro to Maint Procedures  1 3 0 2
Prerequisites:  None
Corequisites:  None

This course covers basic maintenance fundamentals for power transmission equipment. Topics include equipment inspection, lubrication, alignment, and other scheduled maintenance procedures. Upon completion, students should be able to demonstrate knowledge of accepted maintenance procedures and practices according to current industry standards.

MNT 111 Maintenance Practices  2 2 0 3
Prerequisites:  None
Corequisites:  None

This course provides in-depth theory and practical applications relating to predictive and preventive maintenance programs. Emphasis is placed on equipment failure analysis, maintenance management software, and techniques such as vibration and infrared analysis. Upon completion, students should be able to demonstrate an understanding of modern analytical and documentation methods.

MNT 131 Metalworking Processes  2 3 0 3
Prerequisites:  None
Corequisites:  None

This course introduces the standard practices that are found in a metal workshop. Topics include the proper care/use of basic hand tools and precision measuring instruments and layout procedures/operation of lathes, drill presses, grinders, milling machines, and power saws. Upon completion, students should be able to work safely in the metal workshop and use basic metalworking equipment.
This course covers the principles of safe rigging practices for handling, placing, installing, and moving heavy machinery and equipment. Topics include safety, weight and dimensional estimation, positioning of equipment slings, rollers, jacks, levers, dollies, ropes, chains, padding, and other related topics. Upon completion, students should be able to safely relocate and set up equipment using accepted rigging practices.

MNT 230 Pumps & Piping Systems  
Prerequisites: None  
Corequisites: None  
This course covers pump installation and maintenance and related valves and piping systems. Topics include various types of pump systems and their associated valves, piping requirements, and other related topics. Upon completion, students should be able to select and install pump and piping systems and demonstrate proper maintenance and troubleshooting procedures.

MRN 121 Marine Engines  
Prerequisites: TRN 110  
Corequisites: HET 110  
This course covers two and four cycle diesel engines that are used for marine vessel propulsion. Emphasis is placed on construction, design, cooling systems, lubrication systems, and air-intake systems. Upon completion, students should be able to test, troubleshoot, diagnose and repair marine engine systems.

MRN 147 Marine Power Trans  
Prerequisites: None  
Corequisites: None  
This course covers the principles and function of marine power trains. Emphasis is placed on marine gears, drive lines, gear reduction, and installation aboard vessels. Upon completion, students should be able to test, service, and troubleshoot marine power trains.

MRN 150 Adv Marine Electrical Sys  
Prerequisites: TRN 120  
Corequisites: None  
This course covers the skills necessary to wire 12-volt direct current and 120-volt alternating current electrical systems found on modern boats and marine applications. Topics include wiring sizing, batteries, wire harnesses, distribution panels, electronic component installation, and electrical system troubleshooting, including generators operation and disassembly. Upon completion, students should be able to diagnose, test, and repair advanced electrical systems in marine applications and boats.

MSC 110 Training Cruise I  
Prerequisites: Proficiency in Reading - A grade of “C” or better in ENG 085 or RED 080 OR minimum Accuplacer score of 57 on Reading  
Corequisites: Full time Marine Technology enrollment or by permission of the department chair  
This course covers the skills necessary to live and work safely aboard oceangoing research vessels. Emphasis is placed on the unique safety requirements aboard oceangoing vessels and the skills needed for oceanographic work. Upon completion, students should be able to safely live and work aboard an oceanographic research vessel conducting offshore scientific operations.

MSC 112 Training Cruise II  
Prerequisites: Proficiency in Reading - A grade of “C” or better in ENG 085 or RED 080 OR minimum Accuplacer score of 57 on Reading  
Corequisites: Full time Marine Technology enrollment or by permission of the department chair  
This course covers the skills necessary to live and work safely aboard oceangoing research vessels. Emphasis is placed on maintaining a 24-hour navigation log and weather watch and safely conducting over-the-side biological sampling operations. Upon completion, students should be able to maintain a weather log, plot a cruise track, and safely use biological sampling gear.

MSC 114 Training Cruise III  
Prerequisites: MSC 112  
Corequisites: Full-time Marine Technology enrollment or by permission of the department chair  
This course covers the skills necessary to live and work safely aboard oceangoing research vessels. Emphasis is placed on utilizing the navigational and hydrographical techniques needed to conduct an offshore bathymetric survey. Upon completion, students should be able to accurately navigate a vessel, gather bathymetric data, and prepare a depth contour plot of a predetermined quadrant.

MSC 122 Boat Handling/Seamanship  
Prerequisites: Proficiency in Reading - A grade of “C” or better in ENG 085 or RED 080 OR minimum Accuplacer score of 57 on Reading  
Corequisites: None  
This course covers the skills of boat handling, the practice of seamanship, and safety and survival in the marine environment. Topics include safe boat handling, seamanship under adverse conditions, fire fighting, man overboard rescue, PFDs, EPIRBs, distress signals, lifeboats, and life rafts. Upon completion, students should be able to competently operate small powerboats and demonstrate proficiency in the use of marine fire fighting and lifesaving equipment.
### COURSE DESCRIPTIONS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSC 124</td>
<td>Industrial Skills</td>
<td>1</td>
<td>4</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Prerequisites:</td>
<td>Proficiency in Reading - A grade of “C” or better in ENG 085 or RED 080 OR minimum Accuplacer score of 57 on Reading</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corequisites:</td>
<td>None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This course offers a practical approach to the mechanical and technical skills needed by technicians in a variety of marine-related jobs. Topics include industrial safety, measurement systems, hand and power tools, fasteners, corrosion protection, project design, and construction and cost estimation. Upon completion, students should be able to safely use hand and/or power tools and understand a variety of measurement and pricing systems.

| MSC 126     | Marine Engines                       | 1     | 2   | 0        | 2      |
| Prerequisites: | None                                    |
| Corequisites:  | None                                    |

This course covers fundamental theory, troubleshooting, and maintenance of marine engines and related equipment, especially outboards. Emphasis is placed on maintenance and operational procedures, including corrosion control, lubrication, propellers, carburetors, two-cycle theory, magneto ignition, batteries, starters, alternators, and trailers. Upon completion, students should be able to understand how a marine engine and related components work, perform minor repairs, and properly maintain them.

| MSC 132     | Fishing Gear Tech I                  | 2     | 3   | 0        | 3      |
| Prerequisites: | Proficiency in Reading - A grade of “C” or better in ENG 085 or RED 080 OR minimum Accuplacer score of 57 on Reading |
| Corequisites:  | None                                    |

This course introduces modern rope seamanship and fishing gear theory, design, repair, and analysis as it relates to fisheries research. Emphasis is placed on various practical knots, rope splicing, marine hardware, biological sampling gear classifications, and the basics of net construction, repair, and design. Upon completion, students should be able to implement marlinspike skills; repair netted material; and identify, design, and construct various types of biological entrapment and entanglement gear.

| MSC 134     | Fishing Gear Tech II                 | 1     | 2   | 0        | 2      |
| Prerequisites: | MSC 132                                   |
| Corequisites:  | None                                    |

This course offers further experience and instruction in fishing gear theory and design and the collection and recording of biological data. Emphasis is placed on the general skills needed to design, construct, and repair complex sampling gear and be employed as a fisheries technician. Upon completion, students should be able to understand and apply fishing gear design and construction techniques and collect, compile, and record biological data.

| MSC 150     | Marine Navigation                    | 2     | 3   | 0        | 3      |
| Prerequisites: | Proficiency in Reading - A grade of “C” or better in ENG 085 or RED 080 OR minimum Accuplacer score of 57 on Reading |
| Corequisites:  | None                                    |

This course provides training in marine piloting and electronic navigation techniques. Topics include use of charts, instruments, navigational aids, compasses, nautical publications, RADAR, GPS, LORAN, and depth sounders, with an emphasis on plotting techniques. Upon completion, students should be able to demonstrate competence in the safe navigation of vessels utilizing and interpreting information obtained from navigational aids. Use of navigational computer software will also be introduced.

| MSC 152     | Marine Instrumentation               | 1     | 2   | 0        | 2      |
| Prerequisites: | None                                    |
| Corequisites:  | None                                    |

This course introduces the various types of oceanographic instrumentation used for the collection of data and samples by the oceanographic community. Emphasis is placed on data recording procedures, proper operation, safe handling, and calibration, maintenance, and repair of instruments. Upon completion, students should be able to safely and correctly use the instruments covered to conduct accurate field measurements.

| MSC 154     | Marine Photography                   | 2     | 2   | 0        | 3      |
| Prerequisites: | Proficiency in Reading - A grade of “C” or better in ENG 085 or RED 080 OR minimum Accuplacer score of 57 on Reading |
| Corequisites:  | CIS 111 or CIS 110                   |

This course introduces the basic concepts, processes, and techniques of photography with emphasis on marine applications. Topics include proper camera operation, composition, exposure, lighting techniques, and the processing of black and white films and papers. Upon completion, students should be able to demonstrate proficiency in the operation of a camera and portable lighting tools with consistent exposures and darkroom techniques.

| MSC 160     | Oceanography                         | 4     | 0   | 0        | 4      |
| Prerequisites: | Proficiency in Reading - A grade of “C” or better in ENG 085 or RED 080 OR minimum Accuplacer score of 57 on Reading |
| Corequisites:  | None                                    |

This course provides a general description of the geology, chemistry, and physics of the oceans. Topics include a history of oceanography, bathymetry, plate tectonics, seawater chemistry and physics, atmospheric circulation, currents, waves, tides, sedimentation, and coastal geology. Upon completion, students should be able to describe bathymetric features, the chemistry and physics of seawater, atmospheric and ocean circulations, marine sediments, and coastal processes.

| Corequisites:  | None                                    |

Accuplacer score of 57 on Reading
### MSC 172 Marine Biology
**Prerequisites:** Proficiency in Reading - A grade of “C” or better in ENG 085 or RED 080 OR minimum Accuplacer score of 57 on Reading
**Corequisites:** None

This course utilizes field trips to the beach, salt marsh, and other habitats to study marine animals and plants in their natural communities. Topics include divisions of the marine environment, distribution of life in the ocean, and the interrelationships of marine organisms in various habitats. Upon completion, students should be able to scientifically identify various marine species and describe the role they fill in their biological communities.

### MSC 174 Marine Inverteb Zoology
**Prerequisites:** None
**Corequisites:** None

This course covers the behavior and classification of marine invertebrates. Topics include identification, feeding behavior, reproduction, and symbiotic relationships of marine invertebrates. Upon completion, students should be able to identify and classify marine invertebrates and demonstrate an understanding of their basic anatomy and physiology.

### MSC 180 Water Analysis
**Prerequisites:** None
**Corequisites:** None

This course covers the practical analysis of water samples with an emphasis on marine-oriented techniques and procedures. Topics include basic laboratory skills, microbiology techniques, and the use of wet chemistry and instruments to quantify chemically and biologically important parameters. Upon completion, students should be able to culture microbes, and measure pH, salinity, turbidity, dissolved oxygen, and nutrients in natural water samples.

### MSC 216 Training Cruise IV
**Prerequisites:** MSC 114, MSC 152
**Corequisites:** Full time Marine Technology enrollment or by permission of the department chair

This course covers the skills necessary to live and work safely aboard oceangoing research vessels. Emphasis is placed on conducting a broad range of oceanographic survey techniques, including chemical, meteorological, geological, physical, and biological surveys. Upon completion, students should be able to demonstrate competence in the skills required of a marine technician aboard an oceanographic or survey vessel.

### MSC 218 Training Cruise V
**Prerequisites:** MSC 216, MSC 152
**Corequisites:** Full time Marine Technology enrollment by permission of the department chair

This course covers the skills necessary to live and work safely aboard oceangoing research vessels. Emphasis is placed on conducting a broad range of oceanographic survey techniques, including chemical, meteorological, geological, physical, and biological surveys. Upon completion, students should be able to demonstrate competence in the skills required of a marine technician aboard an oceanographic or survey vessel.

### MSC 220 Marine GIS
**Prerequisites:** CIS 110 or CIS 111
**Corequisites:** None

This course introduces students to the software and data components of a Geographic Information System. Topics include data collection, management, and analysis, and the creation of marine-based GIS maps. Upon completion, students should be able to use GIS software in marine applications.

### MSC 254 Marine Data Processing
**Prerequisites:** CIS 110 or CIS 111, MSC 152
**Corequisites:** MSC 256

This course introduces standard oceanographic procedures used to process and analyze oceanographic data. Emphasis is placed on the use of standard recording procedures and computer applications for processing and analyzing oceanographic data. Upon completion, students should be able to record and analyze oceanographic data using standard procedures along with computer-based applications.

### MSC 256 Hydrographic Surveying
**Prerequisites:** CIS 110 or CIS 111, MSC 152
**Corequisites:** MSC 254

This course covers basic hydrographic survey and cartography techniques as they apply to marine research. Topics include topographic map bathymetric chart basics, contours, elevations, depths, coordinate systems, survey instruments, data collection and processing, modeling, and field surveys. Upon completion, students should be able to use topographic and bathymetric maps as a research tool and set up and conduct a basic survey.

### MSC 258 CAD & Multimedia Display
**Prerequisites:** CIS 110 or CIS 111, MSC 154
**Corequisites:** None

This course introduces and provides experience with a variety of technically oriented digital applications. Emphasis is placed on contemporary visual presentation methods and techniques, as well as on an introduction to plotting, editing, and file management with CAD software. Upon completion, students should be able to produce a computerized technical presentation and informational presentation item, and create cross sections and profiles using CAD software.
### COURSE DESCRIPTIONS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Prerequisites</th>
<th>Corequisites</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSC 276 Marine Vertebrate Zoo</td>
<td>This course covers the behavior and classification of marine fishes, reptiles, birds, and mammals. Topics include identification, feeding behavior, reproduction, migration, and other marine vertebrate characteristics. Upon completion, students should be able to identify marine vertebrates and demonstrate an understanding of the methods marine vertebrates use to survive in the ocean.</td>
<td>None</td>
<td>None</td>
<td>3</td>
<td>2</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>MUS 100 Music Appreciation</td>
<td>This course is a basic survey of the music of the Western world. Emphasis is placed on the elements of music, terminology, composers, form, and style within a historical perspective. Upon completion, students should be able to demonstrate skills in basic listening and understanding of the art of music. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. This course may meet the SACS humanities/fine arts requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.</td>
<td>None</td>
<td>None</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>MUS 111 Fundamentals of Music</td>
<td>This course is an introductory course for students with little or no music background. Emphasis is placed on music notation, rhythmic patterns, scales, key signatures, intervals, and chords. Upon completion, students should be able to demonstrate an understanding of the rudiments of music. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement. This course may meet the SACS humanities/fine arts requirement for AGE, AAS, DIP, or CER programs.</td>
<td>None</td>
<td>None</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>MUS 112 Introduction to Jazz</td>
<td>This course introduces the origins and musical components of jazz and the contributions of its major artists. Emphasis is placed on the development of discriminating listening habits, as well as the investigation of the styles and structural forms of the jazz idiom. Upon completion, students should be able to demonstrate skills in listening and understanding this form of American music. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. This course may meet the SACS humanities/fine arts requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.</td>
<td>None</td>
<td>None</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>MUS 113 American Music</td>
<td>This course introduces various musical styles, influences, and composers of the United States from pre-Colonial times to the present. Emphasis is placed on the broad variety of music particular to American culture. Upon completion, students should be able to demonstrate skills in basic listening and understanding of American music. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. This course may meet the SACS humanities/fine arts requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.</td>
<td>None</td>
<td>None</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>MUS 114 Non-Western Music</td>
<td>This course provides a basic survey of the music of the non-Western world. Emphasis is placed on non-traditional instruments, sources, and performing practices. Upon completion, students should be able to demonstrate skills in basic listening and understanding of the art of non-Western music. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. This course may meet the SACS humanities/fine arts requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.</td>
<td>None</td>
<td>None</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>MUS 121 Music Theory</td>
<td>This course provides an in-depth introduction to melody, rhythm, and harmony. Emphasis is placed on fundamental melodic, rhythmic, and harmonic analysis, introduction to part writing, ear-training, and sight-singing. Upon completion, students should be able to demonstrate proficiency in the recognition and application of the above. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement. This course may meet the SACS humanities/fine arts requirement for AGE, AAS, DIP, or CER degree programs.</td>
<td>None</td>
<td>None</td>
<td>3</td>
<td>2</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>MUS 122 Music Theory II</td>
<td>This course is a continuation of studies begun in MUS 121. Emphasis is placed on advanced melodic, rhythmic, and harmonic analysis and continued studies in part-writing, ear-training, and sight-singing. Upon completion, students should be able to demonstrate proficiency in the recognition and application of the above. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement. This course may meet the SACS humanities/fine arts requirement for AGE, AAS, DIP, or CER degree programs.</td>
<td>MUS 121</td>
<td>None</td>
<td>3</td>
<td>2</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>
CAFE FEAR COMMUNITY COLLEGE

MUS 123 Music Composition 0 2 0 1
Prerequisites: MUS 111 or MUS 121
Corequisites: None

This course provides a study of elementary forms and traditional approaches to the organization of melody, harmony, rhythm, etc. in musical composition. Emphasis is placed on using musical notation to create new musical works. Upon completion, students should be able to create short musical works using appropriate musical notation. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

MUS 131 Chorus I 0 2 0 1
Prerequisites: None
Corequisites: None

This course provides an opportunity to gain experience singing in a chorus. Emphasis is placed on vocal techniques and the study and performance of a variety of styles and periods of choral literature. Upon completion, students should be able to demonstrate skills needed to participate in choral singing leading to performance. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

MUS 132 Chorus II 0 2 0 1
Prerequisites: MUS 131
Corequisites: None

This course provides a continuation of studies begun in MUS 131. Emphasis is placed on vocal techniques and the study and performance of a variety of styles and periods of choral literature. Upon completion, students should be able to demonstrate skills needed to participate in choral singing leading to performance. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

MUS 135 Jazz Ensemble I 0 2 0 1
Prerequisites: None
Corequisites: None

This course provides an opportunity for those who play an appropriate instrument to gain experience playing in a jazz ensemble. Emphasis is placed on jazz ensemble techniques and the study and performance of a variety of styles of jazz literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

MUS 136 Jazz Ensemble II 0 2 0 1
Prerequisites: MUS 135
Corequisites: None

This course is a continuation of MUS 135. Emphasis is placed on jazz ensemble techniques and the study and performance of a variety of styles and periods of jazz literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

MUS 137 Orchestra I 0 2 0 1
Prerequisites: None
Corequisites: None

This course provides an opportunity for those who play an orchestral instrument to gain experience playing in an ensemble. Emphasis is placed on orchestral techniques and the study and performance of a variety of styles and periods of orchestral and string ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

MUS 138 Orchestra II 0 2 0 1
Prerequisites: MUS 137
Corequisites: None

This course is a continuation of MUS 137. Emphasis is placed on orchestral techniques and the study and performance of a variety of styles and periods of orchestral and string ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

MUS 141 Ensemble I 0 2 0 1
Prerequisites: None
Corequisites: None

This course provides an opportunity to perform in any combination of instrumental, vocal, or keyboard groups of two or more. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

MUS 142 Ensemble II 0 2 0 1
Prerequisites: MUS 141
Corequisites: None

This course is a continuation of MUS 141. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.
MUS 151 Class Music I
Prerequisites: None
Corequisites: None
This course provides group instruction in skills and techniques of the particular instrument or voice for those with little or no previous experience. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

MUS 152 Class Music II
Prerequisites: MUS 151
Corequisites: None
This course is a continuation of MUS 151. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

MUS 161 Applied Music I
Prerequisites: None
Corequisites: None
This course provides individual instruction in the skills and techniques of the particular instrument or voice. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. Colleges may use a letter suffix to designate a specific instrument or voice, for example MUS 161P for piano. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

MUS 162 Applied Music II
Prerequisites: MUS 161
Corequisites: None
This course is a continuation of MUS 161. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. Colleges may use a letter suffix to designate a specific instrument or voice, for example MUS 162P for piano. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

MUS 163 Recording Techniques I
Prerequisites: None
Corequisites: None
This course introduces the recording studio from an artistic and operational point of view. Emphasis is placed on audio consoles, microphones, multi-track recorders, and echo chambers. Upon completion, students should be able to demonstrate understanding of operation and function of recording equipment and its relationship to musician, sound engineer, and producer. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

MUS 164 Recording Techniques II
Prerequisites: MUS 175
Corequisites: None
This course continues the study and application of recording techniques begun in MUS 175. Emphasis is placed on multi-track recording and mix-down, microphone placement, and patch bay function. Upon completion, students should be able to create projects demonstrating proficiency in the skills and use of the equipment studied. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

MUS 210 History of Rock Music
Prerequisites: None
Corequisites: None
This course is a survey of Rock music from the early 1950’s to the present. Emphasis is placed on musical groups, soloists, and styles related to the evolution of this idiom and on related historical and social events. Upon completion, students should be able to identify specific styles and to explain the influence of selected performers within their respective eras. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirements in humanities/fine arts.

MUS 211 History of Country Music
Prerequisites: None
Corequisites: None
This course introduces the varied origins of country music and the commercialization of this art form. Emphasis is placed on historical, sociocultural, and stylistic factors related to country music and musicians. Upon completion, students should be able to identify specific styles and explain the influence of pop culture on the development of country music. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirements in humanities/fine arts.
CAFE FEAF COMMUNITY COLLEGE

MUS 212 American Musical Theatre
Prerequisites: None
Corequisites: None
This course covers the origins and development of the musical from Show Boat to the present. Emphasis is placed on the investigation of the structure of the musical and its components through listening and analysis. Upon completion, students should be able to demonstrate skills in listening and understanding this form of American music. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirements in humanities/fine arts.

MUS 214 Electronic Music
Prerequisites: MUS 111
Corequisites: None
This course provides an opportunity to study and explore various electronic instruments and devices. Emphasis is placed on fundamental MIDI applications and implementation, features and application of sequences, sound modules, and digital keyboards. Upon completion, students should be able to demonstrate proficiency by creation of appropriate musical projects using the equipment and techniques covered. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

MUS 215 Electronic Music II
Prerequisites: MUS 214
Corequisites: None
This course is a continuation of MUS 214. Emphasis is placed on advanced MIDI applications and implementation and continued work with sequencers, sound modules, and digital keyboards. Upon completion, students should be able to demonstrate proficiency by creation of appropriate musical projects using the equipment and techniques covered. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

MUS 221 Music Theory III
Prerequisites: MUS 122
Corequisites: None
This course is a continuation of MUS 122. Emphasis is placed on altered and chromatic harmony, common practice era compositional techniques and forms, and continued studies in part-writing, ear-training, and sight-singing. Upon completion, students should be able to demonstrate proficiency in the recognition and application of the above. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

MUS 222 Music Theory IV
Prerequisites: MUS 221
Corequisites: None
This course is a continuation of studies begun in MUS 221. Emphasis is placed on continued study of common practice era compositional techniques and forms, 20th century practices, ear-training, and sight-singing. Upon completion, students should be to demonstrate proficiency in the recognition and application of the above. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

MUS 231 Chorus III
Prerequisites: MUS 132
Corequisites: None
This course is a continuation of MUS 132. Emphasis is placed on vocal techniques and the study and performance of a variety of styles and periods of choral literature. Upon completion, students should be able to demonstrate skills needed to participate in choral singing leading to performance. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as pre-major and/or elective course requirement.

MUS 232 Chorus IV
Prerequisites: MUS 231
Corequisites: None
This course is a continuation of MUS 132. Emphasis is placed on vocal techniques and the study and performance of a variety of styles and periods of choral literature. Upon completion, students should be able to demonstrate skills needed to participate in choral singing leading to performance. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as pre-major and/or elective course requirement.

MUS 235 Jazz Ensemble III
Prerequisites: MUS 136
Corequisites: None
This course is a continuation of MUS 136. Emphasis is placed on jazz ensemble techniques and the study and performance of a variety of styles and periods of jazz literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

MUS 236 Jazz Ensemble IV
Prerequisites: MUS 235
Corequisites: None
This course is a continuation of MUS 136. Emphasis is placed on jazz ensemble techniques and the study and performance of a variety of styles and periods of jazz literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.
of a variety of styles and periods of jazz literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.*

**MUS 237 Orchestra III**

Prerequisites: MUS 138
Corequisites: None

This course is a continuation of MUS 138. Emphasis is placed on orchestral techniques and the study and performance of a variety of styles and periods of orchestral and string ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.*

**MUS 238 Orchestra IV**

Prerequisites: MUS 237
Corequisites: None

This course is a continuation of MUS 237. Emphasis is placed on orchestral techniques and the study and performance of a variety of styles and periods of orchestral and string ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.*

**MUS 241 Ensemble III**

Prerequisites: MUS 142
Corequisites: None

This course is a continuation of MUS 142. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.*

**MUS 242 Ensemble IV**

Prerequisites: MUS 241
Corequisites: None

This course is a continuation of MUS 241. Emphasis is placed on the development of performance skills and the study of styles of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.*

**MUS 251 Class Music III**

Prerequisites: MUS 152
Corequisites: None

This course is a continuation of MUS 152. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. Colleges may use a letter suffix to designate a specific instrument or voice, for example, MUS 251P for piano. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.*

**MUS 252 Class Music IV**

Prerequisites: MUS 251
Corequisites: None

This course is a continuation of MUS 251. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. Colleges may use a letter suffix to designate a specific instrument or voice, for example, MUS 252P for piano. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.*

**MUS 253 Big Band**

Prerequisites: None
Corequisites: None

This course includes the Big Band instrumentation of five saxes, four trumpets, four trombones, and four-piece rhythm section (bass, piano, drums, and guitar). Emphasis is placed on learning the repertoire specifically written for Big Band instrumentation. Upon completion, students should be able to demonstrate skills needed to participate in performance of Big Band music. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

**MUS 261 Applied Music III**

Prerequisites: MUS 162
Corequisites: None

This course is a continuation of MUS 162. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. Colleges may use a letter suffix to designate a specific instrument or voice, for example, MUS 261P for piano. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.*
### MUS 262 Applied Music IV
Prerequisites: MUS 261
Corequisites: None

This course is a continuation of MUS 261. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. Colleges may use a letter suffix to designate a specific instrument or voice, for example MUS 262P for piano. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

### MUS 271 Music History I
Prerequisites: MUS 122
Corequisites: None

This course is the first of a two-semester, in-depth study of music history. Emphasis is placed on the history and literature of music from Antiquity through the Baroque Period. Upon completion, student should be able to trace important musical developments and demonstrate an understanding of the composers' styles. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

### MUS 272 Music History II
Prerequisites: MUS 271
Corequisites: None

This course is the second of a two-semester, in-depth study of music history. Emphasis is placed on the history and literature of music from the Classical Period to the present. Upon completion, students should be able to trace important musical developments and demonstrate an understanding of the composers' styles. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

### NET 125 Networking Basics
Prerequisites: CIS 110 or CIS 111
Corequisites: None

This course introduces the networking field. Emphasis is placed on network terminology and protocols, local-area networks, wide-area networks, OSI model, cabling, router programming, Ethernet, IP addressing, and network standards. Upon completion, students should be able to perform tasks related to networking mathematics, terminology, and models, media, Ethernet, subnetting, and TCP/IP Protocols.

### NET 126 Routing Basics
Prerequisites: NET 125
Corequisites: None

This course focuses on initial router configuration, router software management, routing protocol configuration, TCP/IP, and access control lists (ACLs). Emphasis will be placed on the fundamentals of router configuration, managing router software, routing protocol, and access lists. Upon completion, students should have an understanding of routers and their role in WANs, router configuration, routing protocols, TCP/IP, troubleshooting, and ACLs.

### NET 225 Routing & Switching I
Prerequisites: NET 126
Corequisites: None

This course focuses on advanced IP addressing techniques, intermediate routing protocols, command-line interface configuration of switches, Ethernet switching, VLANs, STP, and VTP. Emphasis will be placed on application and demonstration of skills acquired in pre-requisite courses. Upon completion, students should be able to perform tasks related to VLSM, routing protocols, switching concepts and configuration, STP, VLANs, and VTP.

### NET 226 Routing & Switching II
Prerequisites: NET 225
Corequisites: None

This course introduces WAN theory and design, WAN technology, PPP, Frame Relay, ISDN, and additional case studies. Topics include network congestion problems, TCP/IP transport and network layer protocols, advanced routing and switching configuration, ISDN protocols, PPP encapsulation operations on a router. Upon completion, students should be able to provide solutions for network routing problems, identify ISDN protocols, and describe the Spanning Tree protocol.

### NOS 110 Operating System Concepts
Prerequisites: None
Corequisites: CIS 110 or CIS 111

This course introduces students to a broad range of operating system concepts, including installation and maintenance. Emphasis is placed on operating system concepts, management, maintenance, and resources required. Upon completion of this course, students will have an understanding of OS concepts, installation, management, maintenance, using a variety of operating systems.

### NOS 130 Windows Single User
Prerequisites: NOS 110 or CET 211
Corequisites: None

This course introduces operating system concepts for single-user systems. Topics include hardware management, file and memory management, system configuration/optimization, and utilities. Upon completion, students should be able to perform operating systems functions at the support level in a single-user environment.
This course covers the installation and administration of a Windows Server network operating system. Topics include managing and maintaining physical and logical devices, access to resources, the server environment, managing users, computers, and groups, and Managing/Implementing Disaster Recovery. Upon completion, students should be able to manage and maintain a Windows Server environment.

This course provides an introduction to nuclear power plants with emphasis on boiling water reactor (BWR) technology. Topics include the description and function of each major component of the primary and secondary systems of a BWR. Upon completion, students should be able to demonstrate a working knowledge of major BWR systems, including their application during refueling operations.

This course covers the fundamental operating theory of boiling water reactors used by electric utilities. Topics include nuclear fission, radioactivity, radiation, reactivity effects from control rods, fission products, and the burnable poisons created during reactor steady-state and transient operations. Upon completion, students should be able to demonstrate a working knowledge of the neutron life cycle, reactor kinetics, reactivity coefficients, and the effects from xenon.

This course introduces the principles of nondestructive examination (NDE) of the quality of stainless steel pipe, reactor vessel, and nozzle welds. Topics include practical applications of visual inspection along with dye penetrant, magnetic particle, ultrasonic, and radiographic testing, of acceptable and unacceptable welds. Upon completion, students should be able to select and apply the proper testing method to detect surface and subsurface flaws.

This course introduces concepts as related to the practical nurse’s caregiver and discipline-specific roles. Emphasis is placed on the nursing process, legal/ethical/professional issues, wellness/illness patterns, and basic nursing skills. Upon completion, students should be able to demonstrate beginning understanding of nursing process to promote/maintain/restore optimum health for diverse clients throughout the life span.

This course covers the installation and administration of a Windows Server network operating system. Topics include managing and maintaining physical and logical devices, access to resources, the server environment, managing users, computers, and groups, and Managing/Implementing Disaster Recovery. Upon completion, students should be able to manage and maintain a Windows Server environment.

This course provides an introduction to nuclear power plants with emphasis on boiling water reactor (BWR) technology. Topics include the description and function of each major component of the primary and secondary systems of a BWR. Upon completion, students should be able to demonstrate a working knowledge of major BWR systems, including their application during refueling operations.

This course covers the fundamental operating theory of boiling water reactors used by electric utilities. Topics include nuclear fission, radioactivity, radiation, reactivity effects from control rods, fission products, and the burnable poisons created during reactor steady-state and transient operations. Upon completion, students should be able to demonstrate a working knowledge of the neutron life cycle, reactor kinetics, reactivity coefficients, and the effects from xenon.

This course introduces the principles of nondestructive examination (NDE) of the quality of stainless steel pipe, reactor vessel, and nozzle welds. Topics include practical applications of visual inspection along with dye penetrant, magnetic particle, ultrasonic, and radiographic testing, of acceptable and unacceptable welds. Upon completion, students should be able to select and apply the proper testing method to detect surface and subsurface flaws.
This course introduces the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts within each domain including medication administration, assessment, nutrition, ethics, interdisciplinary teams, informatics, evidence-based practice, individual-centered care, and quality improvement. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course.

**Prerequisites:** NUR 111, BIO 168, PSY 150

**Corequisites:** BIO 169, PSY 241

This course is designed to further develop the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts of fluid/electrolytes, perfusion, infection, immunity, mobility, comfort, behaviors, health-wellness-illness, clinical decision-making, caring interventions, managing care, and safety. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course.

**Prerequisites:** NUR 112, NUR 113, NUR 114, NUR 211

**Corequisites:** ENG 111, NUR 111, NUR 211

This course is designed to further develop the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts of cellular regulation, perfusion, infection, immunity, mobility, comfort, behaviors, health-wellness-illness, clinical decision-making, caring interventions, managing care, and safety. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course.

**Prerequisites:** NUR 112, NUR 111

**Corequisites:** BIO 175, ENG 111

This course is designed to further develop the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts of acid-base, metabolism, cellular regulation, oxygenation, infection, stress/coping, health-wellness-illness, communication, caring interventions, managing care, safety, quality improvement, and informatics. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course.

**Prerequisites:** NUR 111, BIO 168, PSY 150

**Corequisites:** BIO 169, PSY 241

This course is designed to further develop the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts of grief/loss, violence, health-wellness-illness, collaboration, managing care, safety, advocacy, legal issues, policy, healthcare systems, ethics, accountability, and evidence-based practice. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course.

**Prerequisites:** BIO 175, ENG 111, NUR 111

**Corequisites:** ENG 114, Humanity/Fine Arts Elective, NUR 112, NUR 113, NUR 114, NUR 211, NUR 212

This course is designed to assimilate the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts of fluid/electrolytes, metabolism, perfusion, mobility, stress/coping, violence, health-wellness-illness, professional behaviors, caring interventions, managing care, healthcare systems, and quality improvement. Upon completion, students should be able to demonstrate the knowledge, skills, and attitudes necessary to provide quality, individualized, entry level nursing care.

**Prerequisites:** None

**Corequisites:** None

This course covers basic principles of nutrition and their relationship to human health. Topics include meeting nutritional needs of healthy people, menu modification based on special dietary needs, food habits, and contemporary problems associated with food selection. Upon completion, students should be able to apply basic nutritional concepts to food preparation and selection.

**Prerequisites:** None

**Corequisites:** None

This course provides a foundation for creating constructive relationships and presents the processes behind problem solving for groups and individuals. Emphasis is placed on building constructive relationships, confronting issues, winning support, and the basic processes of problem solving. Upon completion, students should be able to enhance relationships with others and apply a systematic approach to problem solving.

**Prerequisites:** None

**Corequisites:** None
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>OST 131</td>
<td>Keyboarding</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Prerequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>This course covers basic keyboarding skills. Emphasis is placed on the touch system, correct techniques, and development of speed and accuracy. Upon completion, students should be able to key at an acceptable speed and accuracy level using the touch system.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OST 136</td>
<td>Word Processing</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Prerequisites: CIS 110 or CIS 111 or OST 131</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>This course introduces word processing concepts and applications. Topics include preparation of a variety of documents and mastery of specialized software functions. Upon completion, students should be able to work effectively in a computerized word processing environment.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OST 148</td>
<td>Medical Coding, Billing and Insurance</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Prerequisites: OST 248</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>This course introduces CPT and ICD coding as they apply to medical insurance and billing. Emphasis is placed on accuracy in coding, forms preparation, and posting. Upon completion, students should be able to describe the steps of the total billing cycle and explain the importance of accuracy.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OST 149</td>
<td>Med Legal Issues</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Prerequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>This course introduces the complex legal, moral, and ethical issues involved in providing health-care services. Emphasis is placed on the legal requirements of medical practices; the relationship of physician, patient, and office personnel; professional liabilities; and medical practice liability. Upon completion, students should be able to demonstrate a working knowledge of current medical law and accepted ethical behavior. This course is also available through the Virtual Learning Community (VLC).</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OST 164</td>
<td>Text Editing Applications</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Prerequisites: Proficiency in Reading – A grade of “C” or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corequisites: ENG 111</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>This course provides a comprehensive study of editing skills needed in the workplace. Emphasis is place on grammar, punctuation, sentence structure, proofreading, and editing. Upon completion, students should be able to use reference materials to compose and edit text.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OST 201</td>
<td>Medical Transcription I</td>
<td>3</td>
<td>2</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Prerequisites: MED 121, OST 136, BIO 106 or BIO 163 or BIO 168</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corequisites: MED 122 or OST 142, and OST 164</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>This course introduces dictating equipment and typical medical dictation. Emphasis is placed on efficient use of equipment, dictionaries, PDRs, and other reference materials. Upon completion, students should be able to efficiently operate dictating equipment and to accurately transcribe a variety of medical documents in a specified time. This course is intended for diploma programs.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OST 202</td>
<td>Medical Transcription II</td>
<td>3</td>
<td>2</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Prerequisites: MED 122, OST 201</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>This course provides additional practice in transcribing documents from various medical specialties. Emphasis is placed on increasing transcription speed and accuracy and understanding medical procedures and terminology. Upon completion, students should be able to accurately transcribe a variety of medical documents in a specified time.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OST 243</td>
<td>Medical Office Simulation</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Prerequisites: OST 131 and OST 148</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>This course introduces medical systems used to process information in the automated office. Topics include traditional and electronic information resources, storing and retrieving information, and the billing cycle. Upon completion, students should be able to use the computer accurately to schedule, bill, update, and make corrections.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OST 247</td>
<td>Procedure Coding</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Prerequisites: MED 121 and MED 122 or OST 141 and OST 142</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>This course provides in-depth coverage of procedural coding. Emphasis is placed on CPT and HCPCS rules for Medicare billing. Upon completion, students should be able to properly code procedures and services performed by physicians in ambulatory settings.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OST 248</td>
<td>Diagnostic Coding</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Prerequisites: MED 121 and MED 122 or OST 141 and OST 142</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>This course provides an in-depth study of diagnostic coding. Emphasis is placed on ICD coding system. Upon completion, students should be able to properly code diagnoses in a medical facility.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### CAPE FEAR COMMUNITY COLLEGE

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Hours</th>
<th>Hours</th>
<th>Hours</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>OST 289 Administrative Office Mgt</strong></td>
<td>2 2 0 3</td>
<td>Prerequisites: OST 134 or OST 136, OST 148 and OST 164</td>
<td>None</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>OTA 220 Fieldwork I-Placement II</strong></td>
<td>0 0 3 1</td>
<td>Prerequisites: OTA 120, OTA 140, OTA 150, OTA 170</td>
<td>Corequisites: OTA 161, OTA 170</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>OTA 150 Life Span Skills I</strong></td>
<td>2 3 0 3</td>
<td>Prerequisites: OTA 110, OTA 120, OTA 140</td>
<td>Corequisites: OTA 130, OTA 161, PSY 241 and OTA 170</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>OTA 160 Fieldwork I-Placement I</strong></td>
<td>0 0 3 1</td>
<td>Prerequisites: OTA 120 and OTA 140, OTA 110</td>
<td>Corequisites: OTA 130, OTA 150, OTA 170</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>OTA 170 Life Span Skills II</strong></td>
<td>2 3 0 3</td>
<td>Prerequisites: OTA 110, OTA 120, OTA 140</td>
<td>Corequisites: OTA 130, OTA 161, PSY 241 and OTA 170</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>OTA 180 Fieldwork I-Placement III</strong></td>
<td>0 0 3 1</td>
<td>Prerequisites: OTA 120, OTA 130, OTA 140, OTA 150, OTA 161, OTA 170</td>
<td>Corequisites: OTA 220</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This course is designed to be a capstone course for the office professional and provides a working knowledge of modern office procedures. Emphasis is placed on scheduling, telephone procedures, travel arrangements, event planning, office design, and ergonomics. Upon completion, students should be able to adapt in an office environment.

This course introduces occupational therapy theory, practice, philosophy, and principles. Emphasis is placed on providing a basic understanding of the profession as well as beginning to develop interaction and observation skills. Upon completion, students should be able to demonstrate basic understanding of OT practice options, uniform terminology, activity analysis, principles, process, philosophies, and frames of reference. Students will also begin exploration of medical terminology and abbreviations found within health care.

This course provides training in recognizing the therapeutic value of and using a wide variety of leisure, self-care, and work activities. Topics include crafts, games, personal care and work activities, as well as teaching and learning methods and styles. Upon completion, students should be able to design, select, and complete/perform leisure, self-care, and work activities that would be therapeutic for designated client populations.

This course provides training in appropriate and accurate assessment and intervention skills related to sensory, movement, perceptual/cognitive, affective systems, and ADL skills. Topics include kinesiology, body mechanics, sensory, ROM, MMT, cognitive/perceptual, psychosocial, self-care, and work-related assessments; treatment approaches; and basics of group structure and dynamics. Upon completion, students should be able to administer various assessment tools and appropriate treatment approaches regarding sensation, movement, perception/cognition, affect, self-care, and work-related skills.

This course introduces the roles and responsibilities of COTAs/OTRs in OT practice and facilitates development of observation, documentation, and therapeutic use of self skills. Topics include Code of Ethics, roles/responsibilities, credentialing/licensing, documentation, therapeutic use of self and professional identity/behavior, supervisory relationships, time management, and observation skills. Upon completion, students should be able to demonstrate ethical behavior, discriminate between roles/responsibilities of OTAs/OTs, and participate in acceptable supervision, documentation, and scheduling.

This course is designed to use knowledge gained from PSY 241 as it applies to OT practice from birth to adolescence. Topics include review of normal growth and development, identification/discussion of common disabilities/delays, assessment, treatment planning, and intervention approaches used with these populations. Upon completion, students should be able to identify/use assessments/screenings and interventions for infants through adolescents for selected disabilities/developmental delays in various settings.

This course introduces the roles and responsibilities of COTAs/OTRs in OT practice and facilitates development of observation, documentation, and therapeutic use of self skills. Topics include Code of Ethics, roles/responsibilities, credentialing/licensing, documentation, therapeutic use of self and professional identity/behavior, supervisory relationships, time management, and observation skills. Upon completion, students should be able to demonstrate ethical behavior, discriminate between roles/responsibilities of OTAs/OTs, and participate in acceptable supervision, documentation, and scheduling.

This course introduces occupational therapy theory, practice, philosophy, and principles. Emphasis is placed on providing a basic understanding of the profession as well as beginning to develop interaction and observation skills. Upon completion, students should be able to demonstrate basic understanding of OT practice options, uniform terminology, activity analysis, principles, process, philosophies, and frames of reference. Students will also begin exploration of medical terminology and abbreviations found within health care.

This course provides introductory-level clinical training opportunities. Emphasis is placed on observational and basic interactional skills in a setting with a culturally diverse client population. Upon completion, students should be able to use observational and interactional skills to relate effectively with clients under the guidance/direction of fieldwork supervisors.

This course provides introductory-level clinical training opportunities. Emphasis is placed on observational and basic interactional skills in a setting with a culturally diverse client population. Upon completion, students should be able to use observational and interactional skills to relate effectively with clients under the guidance/direction of fieldwork supervisors.
### COURSE DESCRIPTIONS

<table>
<thead>
<tr>
<th><strong>OTA 163 Fieldwork I-Placement III</strong></th>
<th><strong>Class</strong></th>
<th><strong>Lab</strong></th>
<th><strong>Clinical</strong></th>
<th><strong>Credit</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Prerequisites: OTA 120, OTA 140, OTA 220</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Corequisites: OTA 180, OTA 240, OTA 250</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This course provides introductory-level clinical training opportunities. Emphasis is placed on observational and basic interactional skills in a setting with a culturally diverse client population. Upon completion, students should be able to use observational and interactional skills to relate effectively with clients under the guidance/direction of fieldwork supervisors.

<table>
<thead>
<tr>
<th><strong>OTA 170 Physical Dysfunction</strong></th>
<th><strong>Class</strong></th>
<th><strong>Lab</strong></th>
<th><strong>Clinical</strong></th>
<th><strong>Credit</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Prerequisites: OTA 110, OTA 120, OTA 140</td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Corequisites: OTA 130, OTA 150, OTA 161</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This course is designed to provide knowledge and skills needed for working with individuals experiencing varied medical/physical conditions within their socioeconomic and cultural environments. Topics include medical terminology, common diagnoses, structures/functions that change with disease processes, assessment/treatment priorities for specific problems/conditions, treatment planning, and intervention. Upon completion, students should be able to recognize common symptoms, prioritize problems, and provide for patient safety and infection control when planning and implementing treatment. Kinesiology and fundamentals of movement analysis will also be included in this course.

<table>
<thead>
<tr>
<th><strong>OTA 180 Psychosocial Dysfunction</strong></th>
<th><strong>Class</strong></th>
<th><strong>Lab</strong></th>
<th><strong>Clinical</strong></th>
<th><strong>Credit</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Prerequisites: OTA 220 and PSY 281</td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Corequisites: OTA 163, OTA 240, OTA 250</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This course uses theories/principles related to psychological/psychiatric health and illnesses and provides training in assessing/treating symptoms of dysfunction and therapeutic use of self and groups. Topics include psychiatric illnesses, symptoms of dysfunction, assessment, treatment of individuals, planning and facilitating therapeutic groups, client safety, and psychosocial aspects of practice. Upon completion, students should be able to effectively plan and conduct individual and group treatment for client conditions related to psychosocial dysfunction recognizing temporal/socioeconomic/cultural contexts.

<table>
<thead>
<tr>
<th><strong>OTA 220 Media II</strong></th>
<th><strong>Class</strong></th>
<th><strong>Lab</strong></th>
<th><strong>Clinical</strong></th>
<th><strong>Credit</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Prerequisites: OTA 120, OTA 130, OTA 150, OTA 161, OTA 170</td>
<td>1</td>
<td>6</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Corequisites: OTA 162</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This course provides training in appropriate and accurate assessment and intervention skills related to orthotics, prosthetics, assistive devices, environmental controls, and ADA issues. Topics include ergonomics and hand function, splint selection/fabrication, changes that improve access for persons with disabilities, use of modalities in treatment, and computers in OT intervention. Upon completion, students should be able to demonstrate proficiency fabricating/monitoring orthotic devices, constructing/modifying assistive devices, using ADA guidelines, and using computers for therapeutic purposes.

<table>
<thead>
<tr>
<th><strong>OTA 240 Professional Skills II</strong></th>
<th><strong>Class</strong></th>
<th><strong>Lab</strong></th>
<th><strong>Clinical</strong></th>
<th><strong>Credit</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Prerequisites: OTA 140, OTA 220</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Corequisites: OTA 163, OTA 180, OTA 250</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This course builds upon and expands skills developed in OTA 140 with emphasis on documentation, supervisory relationships, involvement in the profession, and clinical management skills. Topics include clarification of roles/responsibilities, detailed examination of the supervisory process, professional participation in organizations, and the mechanics of assisting in clinic operations. Upon completion, students should be able to work effectively with a supervisor, plan/implement a professional activity, and perform routine clinic management tasks.

<table>
<thead>
<tr>
<th><strong>OTA 250 Life Span Skills II</strong></th>
<th><strong>Class</strong></th>
<th><strong>Lab</strong></th>
<th><strong>Clinical</strong></th>
<th><strong>Credit</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Prerequisites: OTA 220</td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Corequisites: OTA 163, OTA 170, OTA 180, OTA 240. PSY 240</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This course uses knowledge gained from PSY 241 as it applies to OT practice from young adulthood through old age. Emphasis is placed on identification/discussion of common disabilities/chronic diseases, assessments, planning and interventions used with these populations, and activity programming. Upon completion, students should be able to identify/use assessments, interventions, and activities for adults with selected disabilities/losses in various settings.

<table>
<thead>
<tr>
<th><strong>OTA 260 Fieldwork II-Placement I</strong></th>
<th><strong>Class</strong></th>
<th><strong>Lab</strong></th>
<th><strong>Clinical</strong></th>
<th><strong>Credit</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Prerequisites: Completion of all OTA Program Didactic Coursework</td>
<td>0</td>
<td>0</td>
<td>18</td>
<td>6</td>
</tr>
<tr>
<td>Corequisites: OTA 261, OTA 280</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This course provides clinical experience under the direct supervision of experienced OTR or COTA personnel working in various practice settings. Emphasis is placed on final clinical preparation for entry-level practice in the profession. Upon completion, students should be able to meet all critical competencies established by the curriculum and AOTA guidelines for entry-level practice.

<table>
<thead>
<tr>
<th><strong>OTA 261 Fieldwork II-Placement II</strong></th>
<th><strong>Class</strong></th>
<th><strong>Lab</strong></th>
<th><strong>Clinical</strong></th>
<th><strong>Credit</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Prerequisites: Completion of OTA Program Didactic Coursework</td>
<td>0</td>
<td>0</td>
<td>18</td>
<td>6</td>
</tr>
<tr>
<td>Corequisites: OTA 260, OTA 280</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This course provides clinical experience under the direct supervision of experienced OTR or COTA personnel working in various practice settings. Emphasis is placed on final clinical preparation for entry-level practice in the profession. Upon completion, students should be able to meet all critical competencies established by the curriculum and AOTA guidelines for entry-level practice.
This course provides instruction in the skills needed for the proper collection of blood and other specimens used for diagnostic testing. Emphasis is placed on ethics, legalities, medical terminology, safety and universal precautions, health care delivery systems, patient relations, anatomy and physiology, and specimen collection. Upon completion, students should be able to demonstrate competence in the theoretical comprehension of phlebotomy techniques.

**PBT 101 Phlebotomy Practicum** 0 0 9 3  
**Prerequisites:** Enrollment in the Phlebotomy Technology program  
**Corequisites:** PBT 100

This course provides supervised experience in the performance of venipuncture and microcollection techniques in a clinical facility. Emphasis is placed on patient interaction and application of universal precautions, proper collection techniques, special procedures, specimen handling, and data management. Upon completion, students should be able to safely perform procedures necessary for specimen collections on patients in various health care settings.

**PCI 162 Instrumentation Controls** 2 3 0 3  
**Prerequisites:** ELC 111 or ELC 131  
**Corequisites:** None

This course surveys industrial process control instrumentation concepts, devices, and systems. Topics include process control devices and process control applications associated with industrial instrumentation. Upon completion, students should be able to demonstrate a basic understanding of the various industrial process control and instrumentation systems.

**PCI 261 Process Measurement** 2 3 0 3  
**Prerequisites:** PCI 162  
**Corequisites:** None

This course introduces the concepts associated with the measurement of different process variables. Topics include theory and applications involved with the process variables of flow, level, pressure, and temperature. Upon completion, students should be able to understand basic process measurements and demonstrate the ability to calibrate process control instrumentation.

**PED 110 Fit and Well for Life** 1 2 0 2  
**Prerequisites:** Proficiency in Reading - A grade of “C” or better in ENG 085 or RED 080 OR minimum Accuplacer score of 57 on Reading.  
**Corequisites:** None

This course is designed to investigate and apply the basic concepts and principles of lifetime physical fitness and other health-related factors. Emphasis is placed on wellness through the study of nutrition, weight control, stress management, and consumer facts on exercise and fitness. Upon completion, students should be able to plan a personal, lifelong fitness program based on individual needs, abilities, and interests.  
*This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.*

**PED 120 Walking for Fitness** 0 3 0 1  
**Prerequisites:** None  
**Corequisites:** None

This course introduces fitness through walking. Emphasis is placed on stretching, conditioning exercises, proper clothing, fluid needs, and injury prevention. Upon completion, students should be able to participate in a recreational walking program.  
*This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.*
COURSE DESCRIPTIONS

PED 124 Run, Swim, Cycle  
Prerequisites: None  
Corequisites: None  

This course introduces the sport of the triathlon. Topics include the rules, equipment, and skills necessary for the triathlon. Upon completion, students should be able to participate in a triathlon competition. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

Note: This course requires membership to an approved commercial facility. Membership costs approximately $144.00 (subject to change). No textbook is required. The first class meeting is always on the CFCC campus, and subsequent classes will meet at the off-campus site.

PED 125 Self-Defense-Beginning  
Prerequisites: None  
Corequisites: None  

This course is designed to aid students in developing rudimentary skills in self-defense. Emphasis is placed on stances, blocks, punches, and kicks as well as non-physical means of self-defense. Upon completion, students should be able to demonstrate basic self-defense techniques of a physical and non-physical nature. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

PED 128 Golf-Beginning  
Prerequisites: None  
Corequisites: None  

This course emphasizes the fundamentals of golf. Topics include the proper grips, stance, alignment, swings for the short and long game, putting, and the rules and etiquette of golf. Upon completion, students should be able to perform the basic golf shots and demonstrate a knowledge of the rules and etiquette of golf. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

PED 129 Golf-Intermediate  
Prerequisites: PED 128  
Corequisites: None  

This course the more advanced phases of golf. Emphasis is placed on refining the fundamental skills and learning more advanced phases of the games such as club selection, trouble shots, and course management. Upon completion, students should be able demonstrate the knowledge and ability to play a recreational round of golf. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

PED 130 Tennis-Beginning  
Prerequisites: None  
Corequisites: None  

This course emphasizes the fundamentals of tennis. Topics include basic strokes, rules, etiquette, and court play. Upon completion, students should be able to play recreational tennis. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

Note: The first class meeting is always on the CFCC campus, and subsequent classes will meet at an off-campus site.

PED 131 Tennis-Intermediate  
Prerequisites: PED 130  
Corequisites: None  

This course emphasizes the refinement of playing skills. Topics include continuing the development of fundamentals, learning advanced serves, and strokes and pace and strategies in singles and doubles play. Upon completion, students should be able to play competitive tennis. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

Note: The first class meeting is always on the CFCC campus, subsequent classes will meet at an off-campus site.

PED 132 Racquetball-Beginning  
Prerequisites: None  
Corequisites: None  

This course introduces the fundamentals of racquetball. Emphasis is placed on rules, fundamentals, and strategies of beginning racquetball. Upon completion, students should be able to play recreational racquetball. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

Note: This course requires membership at an approved commercial facility. Membership costs approximately $144.00 (subject to change). No textbook is required. The first class meeting is always on the CFCC campus, and subsequent classes will meet at the off-campus site.

PED 133 Volleyball-Beginning  
Prerequisites: None  
Corequisites: None  

This course covers the fundamentals of volleyball. Emphasis is placed on the basics of serving, passing, setting, spiking, blocking, and the rules and etiquette of volleyball. Upon completion, student should be able to participate in recreational volleyball. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.
PED 145 Basketball-Beginning 0 2 0 1
Prerequisites: None
Corequisites: None
This course covers the fundamentals of basketball. Emphasis is placed on skill development, knowledge of the rules, and basic game strategy. Upon completion, students should be able to participate in recreational basketball. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

PED 147 Soccer 0 2 0 1
Prerequisites: None
Corequisites: None
This course introduces the basics of soccer. Emphasis is placed on rules, strategies, and fundamental skills. Upon completion, students should be able to participate in recreational soccer. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

PED 148 Softball 0 2 0 1
Prerequisites: None
Corequisites: None
This course introduces the fundamental skills and rules of softball. Emphasis is placed on proper techniques and strategies for playing softball. Upon completion, students should be able to participate in recreational softball. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

PED 149 Flag Football 0 2 0 1
Prerequisites: None
Corequisites: None
This course introduces the fundamentals and rules of flag football. Emphasis is placed on proper techniques and strategies for playing game situations. Upon completion, students should be able to participate in recreational flag football. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

PED 154 Swimming for Fitness 0 3 0 1
Prerequisites: None
Corequisites: None
This course introduces lap swimming, aquacises, water activities, and games. Emphasis is placed on increasing cardiovascular efficiency through aquatic exercise. Upon completion, students should be able to develop an individualized aquatic fitness program. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

Note: This course requires membership to an approved commercial facility. Membership costs approximately $144.00 (subject to change). No textbook is required. The first class meeting is always on the CFCC campus, and subsequent classes will meet at the off-campus site.

PED 170 Backpacking 0 2 0 1
Prerequisites: None
Corequisites: None
This course covers the proper techniques for establishing a campsite, navigating in the wilderness, and planning for an overnight trip. Topics include planning for meals, proper use of maps and compass, and packing and dressing for extended periods in the outdoors. Upon completion, students should be able to identify quality backpacking equipment, identify the principles of no-trace camping, and successfully complete a backpacking experience. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

Note: This course requires an overnight camping trip. Contact Doc Wilson at dwilson@cfcc.edu for more information.

PED 210 Team Sports 0 3 0 1
Prerequisites: None
Corequisites: None
This course introduces the fundamentals of popular American team sports. Emphasis is placed on rules, equipment, and motor skills used in various sports. Upon completion, students should be able to demonstrate knowledge of the sports covered. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

PED 211 New Games 0 2 0 1
Prerequisites: None
Corequisites: None
This course includes explanation, demonstration, and participation in games that provide an alternative to traditional sports. Emphasis is placed on playing for pleasure rather than for competitive purposes. Upon completion, students should be able to participate and lead others in participating in non-
<table>
<thead>
<tr>
<th>COURSE DESCRIPTIONS</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PHI 215 Philosophical Issues</strong></td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Prerequisites: ENG 111</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>This course introduces fundamental issues in philosophy considering the views of classical and contemporary philosophers. Emphasis is placed on knowledge and belief, appearance and reality, determinism and free will, faith and reason, and justice and inequality. Upon completion, students should be able to identify, analyze, and critique the philosophical components of an issue. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. This course may meet the SACS humanities/fine arts requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| **PHI 220 Western Philosophy I** | 3 | 0 | 0 | 3 |
| Prerequisites: ENG 111 | | | | |
| Corequisites: None | | | | |
| This course covers Western intellectual and philosophic thought from the early Greeks through the medievalists. Emphasis is placed on such figures as the pre-Socratics, Plato, Aristotle, Epicurus, Epictetus, Augustine, Suarez, and Aquinas. Upon completion, students should be able to trace the development of leading ideas regarding reality, knowledge, reason, and faith. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. This course may meet the SACS humanities/fine arts requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs. | | | | |

| **PHI 221 Western Philosophy II** | 3 | 0 | 0 | 3 |
| Prerequisites: ENG 111 | | | | |
| Corequisites: None | | | | |
| This course covers Western intellectual and philosophic thought from post-medievalists through recent thinkers. Emphasis is placed on such figures as Descartes, Spinoza, Leibnitz, Locke, Berkeley, Hume, Kant, Hegel, Marx, Mill, and representatives of pragmatism, logical positivism, and existentialism. Upon completion, students should be able to trace the development of leading ideas concerning knowledge, reality, science, society, and the limits of reason. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. This course may meet the SACS humanities/fine arts requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs. | | | | |

| **PHI 230 Introduction to Logic** | 3 | 0 | 0 | 3 |
| Prerequisites: ENG 111 | | | | |
| Corequisites: None | | | | |
| This course introduces basic concepts and techniques for distinguishing between good and bad reasoning. Emphasis is placed on deduction, induction, validity, soundness, syllogisms, truth functions, predicate logic, analogical inference, common fallacies, and scientific methods. Upon completion, students | | | | |
CAPE FEAR COMMUNITY COLLEGE

PHI 240 Introduction to Ethics  3 0 0 3
Prerequisites:  ENG 111
Corequisites:  None

This course introduces theories about the nature and foundations of moral judgments and applications to contemporary moral issues. Emphasis is placed on utilitarianism, rule-based ethics, existentialism, relativism versus objectivism, and egoism. Upon completion, students should be able to apply various ethical theories to individual moral issues such as euthanasia, abortion, crime and punishment, and justice. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. This course may meet the SACS humanities/fine arts requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.

PHI 250 Philosophy of Science  3 0 0 3
Prerequisites:  ENG 111 and MAT 161 or MAT 171 or MAT 175
Corequisites:  None

This course introduces the concepts of empirical observations and laws and their role in scientific explanation, prediction, and theory formation. Topics include the relationship between the philosophy of science and inductive/deductive logic, analytic philosophy, logical empiricism, and explanatory paradigms. Upon completion, students should be able to describe the development and role of scientific explanation, prediction, theory formation, and explanatory paradigms in the natural and social sciences. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

PHM 111 Pharmacy Practice I  3 3 0 4
Prerequisites:  Enrollment in the Pharmacy Technology program
Corequisites:  PHM 110, 115, 115A, BIO 163

This course provides instruction in the technical procedures for preparing and dispensing drugs in the hospital and retail settings under supervision of a registered pharmacist. Topics include drug packaging and labeling, out-patient dispensing, hospital dispensing procedures, controlled substance procedures, inventory control, and non-sterile compounding. Upon completion, students should be able to perform basic supervised dispensing techniques in a variety of pharmacy settings.

PHM 115 Pharmacy Calculations  3 0 0 3
Prerequisites:  None
Corequisites:  None

This course provides an introduction to intravenous admixture preparation and other sterile products, including total parenteral nutrition and chemotherapy. Topics include aseptic techniques; facilities, equipment, and supplies utilized in admixture preparation; incompatibility and stability; laminar flow hoods; immunizations and irrigation solutions; and quality assurance. Upon completion, students should be able to describe and demonstrate the steps involved in preparation of intermittent and continuous infusions, total parenteral nutrition, and chemotherapy.

PHM 115A Pharm Calculations Lab  0 2 0 1
Prerequisites:  None
Corequisites:  None

This course provides an opportunity to practice and perform calculations encountered in pharmacy practice. Emphasis is placed on ratio and proportion, dosage determinations, percentage preparations, reducing and enlarging formulas, dilution and concentration, aliquots, specific gravity and density, and flow rates. Upon completion, students should be able to perform the calculations required to properly prepare a medication order.

PHM 118 Sterile Products  3 3 0 4
Prerequisites:  PHM 110, 111
Corequisites:  PHM 120, 136

This course provides an introduction to sterile compounding and packaging as part of the role of pharmacy technicians, read and interpret drug orders, describe quality assurance, and utilize pharmacy references.
PHM 120 Pharmacology I  
Prerequisites: PHM 110, 111  
Corequisites: PHM 118, 136  
This course introduces the study of the properties, effects, and therapeutic value of the primary agents in the major drug categories. Topics include nutritional products, blood modifiers, hormones, diuretics, cardiovascular agents, respiratory drugs, and gastrointestinal agents. Upon completion, students should be able to place major drugs into correct therapeutic categories and identify indications, side effects, and trade and generic names.

PHM 125 Pharmacology II  
Prerequisites: PHM 110, 111, 120  
Corequisites: PHM 133, 140  
This course provides a continuation of the study of the properties, effects, and therapeutic value of the primary agents in the major drug categories. Topics include autonomic and central nervous system agents, anti-inflammatory agents, and anti-infective drugs. Upon completion, students should be able to place major drugs into correct therapeutic categories and identify indications, side effects, and trade and generic names.

PHM 133 Pharmacy Clinical  
Prerequisites: None  
Corequisites: None  
This course provides an opportunity to work in pharmacy settings under a pharmacist’s supervision. Emphasis is placed on effective communication with personnel, developing proper employee attitude, and dispensing of medications. Upon completion, students should be able to demonstrate an understanding of pharmacy operations, utilize references, dispense medications, prepare patient charges, and efficiently operate computers.

PHM 135 Pharmacy Clinical  
Prerequisites: None  
Corequisites: None  
This course provides an opportunity to work in pharmacy settings under a pharmacist’s supervision. Emphasis is placed on effective communication with personnel, developing proper employee attitude, and dispensing of medications. Upon completion, students should be able to demonstrate an understanding of pharmacy operations, utilize references, dispense medications, prepare patient charges, and efficiently operate computers.

PHM 136 Pharmacy Clinical  
Prerequisites: PHM 110, 111  
Corequisites: PHM 118, 120  
This course provides an opportunity to work in pharmacy settings under a pharmacist’s supervision. Emphasis is placed on effective communication with personnel, developing proper employee attitude, and dispensing of medications. Upon completion, students should be able to demonstrate an understanding of pharmacy operations, utilize references, dispense medications, prepare patient charges, and efficiently operate computers.

PHM 140 Trends in Pharmacy  
Prerequisites: PHM 110, 111  
Corequisites: PHM 125, 133, 140  
This course covers the major issues, trends, and concepts in contemporary pharmacy practice. Topics include professional ethics, continuing education, job placement, and the latest developments in pharmacy technician practice. Upon completion, students should be able to demonstrate a basic knowledge of the topics discussed.

PHM 150 Hospital Pharmacy  
Prerequisites: None  
Corequisites: PHM 118  
This course provides an in-depth study of hospital pharmacy practice. Topics include hospital organizational structure, committee functions, utilization of reference works, purchasing and inventory control, drug delivery systems, and intravenous admixture preparation. Upon completion, students should be able to explain hospital organization/ committee functions, interpret and enter patient orders, fill unit-dose cassettes, and prepare intravenous admixtures.

PHM 155 Community Pharmacy  
Prerequisites: None  
Corequisites: None  
This course covers the operational procedures relating to retail pharmacy. Emphasis is placed on a general knowledge of over-the-counter products, prescription processing, business/inventory management, and specialty patient services. Upon completion, students should be able to provide technical assistance and support to the retail pharmacist.

PHM 160 Pharm Dosage Forms  
Prerequisites: None  
Corequisites: None  
This course is a study of pharmaceutical dosage forms and considerations in their manufacture. Topics include bioavailability, routes of administration, tablets, capsules, solutions, syrups, suspensions, elixirs, aerosols, transdermals, topicals, ophthalmics, otics, and other dosage forms. Upon completion, students should be able to describe the characteristics of the major dosage forms and explain how these characteristics affect the action of the drug.
**PHM 165 Pharmacy Prof Practice**

<table>
<thead>
<tr>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
</tbody>
</table>

Prerequisites: None
Corequisites: None

This course provides a general overview of all aspects of pharmacy technician practice. Emphasis is placed on pharmacy law, calculations, compounding, pharmacology, and pharmacy operations. Upon completion, students should be able to demonstrate competence in the areas required for the Pharmacy Technician Certification Examination.

**PHM 265 Professional Issues**

<table>
<thead>
<tr>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>

Prerequisites: PHM 165
Corequisites: None

This course provides a comprehensive discussion of topics common to the practice of the pharmacy technician. Emphasis is placed on application of professional competencies including legal/ethical issues, leadership/management concepts and employability skills. Upon completion, students should be able to demonstrate competence in pharmacy workplace skills and leadership/management roles.

**PHY 110 Conceptual Physics**

<table>
<thead>
<tr>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>

Prerequisites: Proficiency in Reading - A grade of “C” or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading
Corequisites: PHY 110A

This course provides a conceptually-based exposure to the fundamental principles and processes of the physical world. Topics include basic concepts of motion, forces, energy, heat, electricity, magnetism, and the structure of matter and the universe. Upon completion, students should be able to describe examples and applications of the principles studied. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics. This course may meet the SACS natural science requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.

**PHY 110A Conceptual Physics Lab**

<table>
<thead>
<tr>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>2</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

Prerequisites: Proficiency in Reading - A grade of “C” or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading
Corequisites: PHY 110

This course is a laboratory for PHY 110. Emphasis is placed on laboratory experiences that enhance materials presented in PHY 110. Upon completion, students should be able to apply the laboratory experiences to the concepts presented in PHY 110. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics. This course may meet the SACS natural science requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.

**PHY 131 Physics-Mechanics**

<table>
<thead>
<tr>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>2</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

Prerequisites: MAT 121 or MAT 161 or MAT 171 or MAT 175
Corequisites: None

This algebra/trigonometry-based course introduces fundamental physical concepts as applied to engineering technology fields. Topics include systems of units, problem-solving methods, graphical analysis, vectors, motion, forces, Newton’s laws of motion, work, energy, power, momentum, and properties of matter. Upon completion, students should be able to apply the principles studied to applications in engineering technology fields. This course may meet the SACS natural science requirement for AGE, AAS, DIP, or CER programs.

**PHY 132 Physics-Elec & Magnetism**

<table>
<thead>
<tr>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>2</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

Prerequisites: PHY 131
Corequisites: None

This algebra/trigonometry-based course is a study of fundamental physical concepts as applied to engineering technology fields. Topics include systems of units, problem-solving methods, graphical analysis, waves, electricity, magnetism, circuits, transformers, motors, and generators. Upon completion, student should be able to apply the principles studied to applications in engineering technology fields. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement. This course may meet the SACS natural science requirement for AGE, AAS, DIP, or CER program.

**PHY 151 College Physics I**

<table>
<thead>
<tr>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>2</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

Prerequisites: MAT 161 or MAT 171 or MAT 175
Corequisites: None

This course uses algebra- and trigonometry-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include units and measurement, vectors, linear kinematics and dynamics, energy, power, momentum, fluid mechanics, and heat. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics. This course may meet the SACS natural science requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.

**PHY 152 College Physics II**

<table>
<thead>
<tr>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>2</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

Prerequisites: PHY 151
Corequisites: None

This course uses algebra- and trigonometry-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include electrostatic forces, electric fields, electric potentials, direct-current circuits, magnetostatic forces, magnetic fields, electromagnetic induction, alternating-
current circuits, and light. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics. This course may meet the SACS natural science requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.

PLU 110 Modern Plumbing  
Prerequisites: None  
Corequisites: None  

This course introduces the tools, equipment, and materials associated with the plumbing industry. Topics include safety, use and care of tools, recognition and assembly of fittings and pipes, and other related topics. Upon completion, students should be able to safely assemble various pipes and fittings in accordance with state code requirements.

PLU 111 Intro to Basic Plumbing  
Prerequisites: None  
Corequisites: None  

This course introduces basic plumbing tools, materials, and fixtures. Topics include standard tools, materials, and fixtures used in basic plumbing systems and other related topics. Upon completion, students should be able to demonstrate an understanding of a basic plumbing system.

PLU 120 Plumbing Applications  
Prerequisites: None  
Corequisites: None  

This course covers general plumbing layout, fixtures, and water heaters. Topics include drainage, waste and vent pipes, water service and distribution, fixture installation, water heaters, and other related topics. Upon completion, students should be able to safely install common fixtures and systems in compliance with state and local building codes.

PLU 130 Plumbing Systems  
Prerequisites: None  
Corequisites: None  

This course covers the maintenance and repair of plumbing lines and fixtures. Emphasis is placed on identifying and diagnosing problems related to water, drain and vent lines, water heaters, and plumbing fixtures. Upon completion, students should be able to identify and diagnose needed repairs to the plumbing system.

PLU 140 Intro to Plumbing Codes  
Prerequisites: None  
Corequisites: None  

This course covers plumbing industry codes and regulations. Emphasis is placed on North Carolina regulations and the minimum requirements for plumbing materials and design. Upon completion, students should be able to research and interpret North Carolina plumbing codes.

PLU 150 Plumbing Diagrams  
Prerequisites: None  
Corequisites: None  

This course introduces sketching diagrams and interpretation of blueprints applicable to the plumbing trades. Emphasis is placed on plumbing plans for domestic and/or commercial buildings. Upon completion, students should be able to sketch plumbing diagrams applicable to the plumbing trades.

PLU 160 Plumbing Estimates  
Prerequisites: None  
Corequisites: None  

This course covers techniques for estimating quantities of materials and cost of installation for various types of plumbing systems. Topics include design of systems, codes, material takeoffs, pricing, and public relations. Upon completion, students should be able to order materials needed for installation from a designed system.

PMT 110 Introduction to Project Management  
Prerequisites: CIS 110 or CIS 111  
Corequisites: None  

This course introduces project management fundamentals and principles for organizing, planning, implementing, and controlling nonroutine activities to achieve schedule, budget, and performance objectives. Topics include project life cycles; work breakdown structures; responsibility matrices; as well as planning and control methods such as PERT/CPM and Gantt charts. Upon completion, students should be able to demonstrate knowledge, strategies, and techniques needed to create and execute plans for project development and management.

POL 110 Intro Political Science  
Prerequisites: Proficiency in Reading - A grade of “C” or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading  
Corequisites: None  

This course introduces basic political concepts used by governments and addresses a wide range of political issues. Topics include political theory, ideologies, legitimacy, and sovereignty in democratic and non-democratic systems. Upon completion, students should be able to discuss a variety of issues inherent in all political systems and draw logical conclusions in evaluating these systems. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences. This course may meet the SACS social/behavioral science requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.
## CAPE FEAR COMMUNITY COLLEGE

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>POL 120</td>
<td>American Government</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Prerequisites:</td>
<td>Proficiency in Reading - A grade of “C” or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corequisites:</td>
<td>None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This course is a study of the origins, development, structure, and functions of American national government. Topics include the constitutional framework, federalism, the three branches of government including the bureaucracy, civil rights and liberties, political participation and behavior, and policy formation. Upon completion, students should be able to demonstrate an understanding of the basic concepts and participatory processes of the American political system. 

*This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences. This course may meet the SACS social/behavioral science requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>POL 130</td>
<td>State &amp; Local Government</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Prerequisites:</td>
<td>Proficiency in Reading - A grade of “C” or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corequisites:</td>
<td>None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This course includes state and local political institutions and practices in the context of American federalism. Emphasis is placed on procedural and policy differences as well as political issues in state, regional, and local governments of North Carolina. Upon completion, students should be able to identify and discuss various problems associated with intergovernmental politics and their effect on the community and the individual.  

*This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement at select institutions only.*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>POL 210</td>
<td>Comparative Government</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Prerequisites:</td>
<td>Proficiency in Reading - A grade of “C” or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corequisites:</td>
<td>None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This course provides a cross-national perspective on the government and politics of contemporary nations such as Great Britain, France, Germany, and Russia. Topics include each country’s historical uniqueness, key institutions, attitudes and ideologies, patterns of interaction, and current political problems. Upon completion, students should be able to identify and compare various nations’ governmental structures, processes, ideologies, and capacity to resolve major problems. 

*This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences. This course may meet the SACS social/behavioral science requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>POL 220</td>
<td>International Relations</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Prerequisites:</td>
<td>Proficiency in Reading - A grade of “C” or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corequisites:</td>
<td>None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This course provides a study of the effects of ideologies, trade, armaments, and alliances on relations among nationstates. Emphasis is placed on regional and global cooperation and conflict, economic development, trade, nongovernmental organizations, and international institutions such as the World Court and UN. Upon completion, students should be able to identify and discuss major international relationships, institutions, and problems. 

*This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences. This course may meet the SACS social/behavioral science requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>POL 250</td>
<td>Intro to Political Theory</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Prerequisites:</td>
<td>Proficiency in Reading - A grade of “C” or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corequisites:</td>
<td>None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This course introduces students to normative political theory and examines basic questions and issues about the nature and purpose of politics. Emphasis is placed on the classical and modern political theories of Plato, Aristotle, Hobbes, Locke, Rousseau, Mill, and Marx. Upon completion, students should be able to discuss and evaluate normative political theories about the nature and purpose of politics. 

*This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement at select institutions only.*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSY 118</td>
<td>Interpersonal Psychology</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Prerequisites:</td>
<td>Proficiency in Reading - A grade of “C” or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corequisites:</td>
<td>None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This course introduces the basic principles of psychology as they relate to personal and professional development. Emphasis is placed on personality traits, communication/leadership styles, effective problem solving, and cultural diversity as they apply to personal and work environments. Upon completion, students should be able to demonstrate an understanding of these principles of psychology as they apply to personal and professional development. 

*This course may meet the SACS social/behavioral science requirement for AGE, AAS, DIP, or CER programs.*
PSY 150 General Psychology  
**Class**: 3  
**Lab**: 0  
**Clinical**: 0  
**Credit**: 3  
**Prerequisites**: PSY 150  
**Corequisites**: None  
This course provides an overview of the scientific study of human behavior. Topics include history, methodology, biopsychology, sensation, perception, learning, motivation, cognition, abnormal behavior, personality theory, social psychology, and other relevant topics. Upon completion, students should be able to demonstrate a basic knowledge of the science of psychology. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences. This course may meet the SACS social/behavioral science requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.

PSY 211 Psychology of Adjustment  
**Class**: 3  
**Lab**: 0  
**Clinical**: 0  
**Credit**: 3  
**Prerequisites**: PSY 150  
**Corequisites**: None  
This course introduces the study of the adjustment process focusing on contemporary challenges individuals must deal with in everyday life. Topics include theories of behavior, career choices, self-understanding, coping mechanisms, human relationships, intimacy, sociocultural factors influencing healthy personal adjustment, and other related topics. Upon completion, students should be able to demonstrate an awareness of the processes of adjustment. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement. This course may meet the SACS social/behavioral science requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.

PSY 241 Developmental Psych  
**Class**: 3  
**Lab**: 0  
**Clinical**: 0  
**Credit**: 3  
**Prerequisites**: PSY 150  
**Corequisites**: None  
This course is a study of human growth and development. Emphasis is placed on major theories and perspectives as they relate to the physical, cognitive, and psychosocial aspects of development from conception to death. Upon completion, students should be able to demonstrate knowledge of development across the life span. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences. This course may meet the SACS social/behavioral science requirement for AA, AS, AFA, AGE, AAS, DIP, or CER degree programs.

PSY 259 Human Sexuality  
**Class**: 3  
**Lab**: 0  
**Clinical**: 0  
**Credit**: 3  
**Prerequisites**: PSY 150  
**Corequisites**: None  
This course provides the biological, psychological, and sociocultural aspects of human sexuality and related research.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>RAD 111</td>
<td>RAD Procedures I</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Prerequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corequisites: RAD 110, and RAD 151</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>This course provides the knowledge and skills necessary to perform standard radiographic procedures. Emphasis is placed on radiography of the chest, abdomen, extremities, spine, and pelvis. Upon completion, students should be able to demonstrate competence in these areas.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RAD 112</td>
<td>RAD Procedures II</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Prerequisites: RAD 110, RAD 111, and RAD 151</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>This course provides the knowledge and skills necessary to perform standard radiographic procedures. Emphasis is placed on radiography of the skull, bony thorax, and gastrointestinal, biliary, and urinary systems. Upon completion, students should be able to demonstrate competence in these areas.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RAD 121</td>
<td>Radiographic Imaging I</td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Prerequisites: RAD 110, RAD 111, and RAD 151</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>This course provides the principles of conventional film-screen radiography. Emphasis is placed on the factors that impact density, contrast, recorded detail, and distortion. Upon completion, students should be able to demonstrate an understanding of conventional film-screen radiographic imaging.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RAD 122</td>
<td>Radiographic Imaging II</td>
<td>1</td>
<td>3</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Prerequisites: RAD 112, RAD 121, and RAD 161</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corequisites: RAD 131 and RAD 171</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>This course provides advanced principles of imaging including digital radiography. Emphasis is placed on the factors that impact brightness, contrast, recorded detail, and distortion. Upon completion, students should be able to demonstrate an understanding of advanced principles of imaging.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RAD 131</td>
<td>Radiographic Physics I</td>
<td>1</td>
<td>3</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Prerequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>This course introduces the principles of radiation characteristics and production. Emphasis is placed on imaging equipment. Upon completion, students should be able to demonstrate a basic understanding of radiation characteristics and production.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RAD 151</td>
<td>RAD Clinical Ed I</td>
<td>0</td>
<td>0</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Prerequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corequisites: RAD 110 and RAD 111</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>This course introduces patient management and basic radiographic procedures in the clinical setting. Emphasis is placed on mastering positioning of the chest and extremities, manipulating equipment, and applying principles of ALARA.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RAD 161</td>
<td>RAD Clinical Ed II</td>
<td>0</td>
<td>0</td>
<td>15</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Prerequisites: RAD 110, RAD 111, and RAD 151</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corequisites: RAD 112 and RAD 121</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>This course provides additional experience in patient management and in more complex radiographic procedures. Emphasis is placed on mastering positioning of the spine, pelvis, head and neck, and thorax and adapting procedures to meet patient variations. Upon completion, students should be able to demonstrate successful completion of clinical objectives.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RAD 171</td>
<td>RAD Clinical Ed III</td>
<td>0</td>
<td>0</td>
<td>12</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Prerequisites: RAD 112, RAD 121, and RAD 161</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corequisites: RAD 122 and RAD 131</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>This course provides experience in patient management specific to fluoroscopic and advanced radiographic procedures. Emphasis is placed on applying appropriate technical factors to all studies and mastering positioning of gastrointestinal and urological studies. Upon completion, students should be able to demonstrate successful completion of clinical objectives.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RAD 181</td>
<td>RAD Clinical Elective</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Prerequisites: Enrollment in the Radiography Program</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>This course provides advanced knowledge of clinical applications. Emphasis is placed on enhancing clinical skills. Upon completion, students should be able to successfully complete the clinical course objectives.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RAD 211</td>
<td>RAD Procedures III</td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Prerequisites: RAD 122</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corequisites: RAD 231, RAD 241, and RAD 251</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>This course provides the knowledge and skills necessary to perform standard and specialty radiographic procedures. Emphasis is placed on radiographic specialty procedures, sectional anatomy, and advanced imaging. Upon completion, students should be able to demonstrate an understanding of these areas.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RAD 231</td>
<td>Radiographic Physics II</td>
<td>1</td>
<td>3</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Prerequisites: RAD 171 or RAD 131</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>This course provides advanced principles of radiation characteristics and production including digital imaging and Computed Tomography (CT). Emphasis is placed on imaging equipment. Upon completion, students should be able to demonstrate an understanding of radiation characteristics and production.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### COURSE DESCRIPTIONS

**RAD 241 Radiobiology Protection**  
Prerequisites: RAD 122, RAD 131, and RAD 171  
Corequisites: RAD 211, RAD 231, and RAD 251  

This course covers the principles of radiation protection and radiobiology. Topics include the effects of ionizing radiation on body tissues, protective measures for limiting exposure to the patient and personnel, and radiation monitoring devices. Upon completion, students should be able to demonstrate an understanding of the effects and uses of radiation in diagnostic radiology.

**RAD 245 Image Analysis**  
Prerequisites: RAD 211, RAD 231, RAD 241 and RAD 251  
Corequisites: RAD 261  

This course provides an overview of image analysis and introduces methods of quality management. Topics include image evaluation, pathology, quality control, and quality assurance. Upon completion, students should be able to demonstrate a basic knowledge of image analysis and quality management.

**RAD 251 RAD Clinical Ed IV**  
Prerequisites: RAD 122, RAD 131, and RAD 171  
Corequisites: RAD 211, RAD 231, and RAD 241  

This course provides the opportunity to continue mastering all basic radiographic procedures and to attain experience in advanced areas. Emphasis is placed on equipment operation, pathological recognition, pediatric and geriatric variations, and a further awareness of radiation protection requirements. Upon completion, students should be able to demonstrate successful completion of clinical objectives.

**RAD 261 RAD Clinical Ed V**  
Prerequisites: RAD 251  
Corequisites: RAD 245  

This course is designed to enhance expertise in all radiographic procedures, patient management, radiation protection, and image production and evaluation. Emphasis is placed on developing an autonomous approach to the diversity of clinical situations and successfully adapting to those procedures. Upon completion, students should be able to demonstrate successful completion of clinical objectives.

**RAD 271 Radiography Capstone**  
Prerequisites: RAD 211, RAD 231, RAD 241, RAD 251  
Corequisites: RAD 245, RAD 261  

This course provides an opportunity to exhibit problem-solving skills required for certification. Emphasis is placed on critical thinking and integration of didactic and clinical components. Upon completion, students should be able to demonstrate the knowledge required of any entry-level radiographer.

**RAD 281 RAD Clinical Elective**  
Prerequisites: RAD 161  
Corequisites: None  

This course provides advanced knowledge of clinical applications. Emphasis is placed on enhancing clinical skills. Upon completion, students should be able to successfully complete the clinical course objectives.

**REL 110 World Religions**  
Prerequisites: Proficiency in Reading - A grade of “C” or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading  
Corequisites: None  

This course introduces the world’s major religious traditions. Topics include Primal religions, Hinduism, Buddhism, Islam, Judaism, and Christianity. Upon completion, students should be able to identify the origins, history, beliefs, and practices of the religions studied. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. This course may meet the SACS humanities/fine arts requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.

**REL 111 Eastern Religions**  
Prerequisites: Proficiency in Reading - A grade of “C” or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading  
Corequisites: None  

This course introduces the major Asian religious traditions. Topics include Hinduism, Buddhism, Taoism, Confucianism, and Shinto. Upon completion, students should be able to identify the origins, history, beliefs, and practices of the religions studied. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. This course may meet the SACS humanities/fine arts requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.

**REL 112 Western Religions**  
Prerequisites: Proficiency in Reading - A grade of “C” or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading  
Corequisites: None  

This course introduces the major western religious traditions. Topics include Zoroastrianism, Islam, Judaism, and Christianity. Upon completion, students should be able to identify the origins, history, beliefs, and practices of the religions studied. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. This course may meet the SACS humanities/fine arts requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.
This course is a survey of the literature of the Hebrews with readings from the law, prophets, and other writings. Emphasis is placed on the use of literary, historical, archeological, and cultural analysis. Upon completion, students should be able to use the tools of critical analysis to read and understand Old Testament literature. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. This course may meet the SACS humanities/fine arts requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.

**REL 212 Intro to New Testament**  
Prerequisites: Proficiency in Reading - A grade of “C” or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading  
Corequisites: None  

This course is a survey of the literature of first-century Christianity with readings from the gospels, Acts, and the Pauline and pastoral letters. Topics include the literary structure, audience, and religious perspective of the writings, as well as the historical and cultural context of the early Christian community. Upon completion, students should be able to use the tools of critical analysis to read and understand New Testament literature. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. This course may meet the SACS humanities/fine arts requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.

**REL 221 Religion in America**  
Prerequisites: Proficiency in Reading - A grade of “C” or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading  
Corequisites: None  

This course is an examination of religious beliefs and practice in the United States. Emphasis is placed on mainstream religious traditions and non-traditional religious movements from the Colonial period to the present. Upon completion, students should be able to recognize and appreciate the diversity of religious traditions in America. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. This course may meet the SACS humanities/fine arts requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.

This course provides basic instruction in real estate principles and practices. Topics include law, finance, brokerage, closing, valuation, management, taxation, mathematics, construction, land use, property insurance, and NC License Law and Commission Rules. Upon completion, students should be able to demonstrate basic knowledge and skills necessary for real estate sales.

**RLS 113 Real Estate Mathematics**  
Prerequisites: None  
Corequisites: None  

This course provides basic instruction in business mathematics applicable to real estate situations. Topics include area computations, percentage of profit/loss, bookkeeping and accounting methods, appreciation and depreciation, financial calculations and interest yields, property valuation, insurance, taxes, and commissions. Upon completion, students should be able to demonstrate proficiency in applied real estate mathematics.

**RLS 121 Broker Relationships**  
Prerequisites: RLS 112  
Corequisites: None  

This course provides post-licensing instruction in broker relationships and responsibilities when working with residential sellers and buyers. Topics include agency relationships and duties, agency contracts and disclosure, and the practical aspects of working with residential buyers and sellers. Upon completion, students should be able to demonstrate knowledge and skills necessary to effectively work with residential buyers/sellers according to law and prevailing practices.

**RLS 122 Contracts and Closing**  
Prerequisites: RLS 112  
Corequisites: None  

This course provides post-licensing instruction in broker responsibilities relating to real estate sales contracts, contract procedures, the Real Estate Settlement Procedures Act and closings. Topics include contract law concepts, residential sales contract preparation and procedures, closing procedures and closing statement preparation. Upon completion, students should be able to handle sales contract negotiations, prepare residential sales contracts, assist sellers/buyers prepare for closing and verify closing statements.

**RLS 123 Select Real Estate Issues**  
Prerequisites: RLS 112  
Corequisites: None  

This course provides post-licensing instruction in real estate on selected topics of special importance to licensees. Topics
include commercial real estate brokerage, residential property management, land use controls, loan fraud, license law, fair housing, establishing a brokerage firm, and manufactured/modular homes. Upon completion, students should be able to demonstrate knowledge of commercial real estate brokerage, residential property management, and the other topics addressed in this course.

**SEC 110 Security Concepts**

*Prerequisites:* None  
*Corequisites:* None

This course introduces the concepts and issues related to securing information systems and the development of policies to implement information security controls. Topics include the historical view of networking and security, security issues, trends, security resources, and the role of policy, people, and processes in information security. Upon completion, students should be able to identify information security risks, create an information security policy, and identify processes to implement and enforce policy.

**SOC 210 Introduction to Sociology**

*Prerequisites:* Proficiency in Reading - A grade of “C” or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading  
*Corequisites:* None

This course introduces the scientific study of human society, culture, and social interactions. Topics include socialization, research methods, diversity and inequality, cooperation and conflict, social change, social institutions, and organizations. Upon completion, students should be able to demonstrate knowledge of sociological concepts as they apply to the interplay among individuals, groups, and societies. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences. This course may meet the SACS social/behavioral science requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.*

**SOC 213 Sociology of the Family**

*Prerequisites:* Proficiency in Reading - A grade of “C” or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading  
*Corequisites:* None

This course covers the institution of the family and other intimate relationships. Emphasis is placed on mate selection, gender roles, sexuality, communication, power and conflict, parenthood, diverse lifestyles, divorce and remarriage, and economic issues. Upon completion, students should be able to analyze the family as a social institution and the social forces which influence its development and change. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences. This course may meet the SACS social/behavioral science requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.*

**SOC 220 Social Problems**

*Prerequisites:* Proficiency in Reading - A grade of “C” or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading  
*Corequisites:* None

This course provides an in-depth study of current social problems. Emphasis is placed on causes, consequences, and possible solutions to problems associated with families, schools, workplaces, communities, and the environment. Upon completion, students should be able to recognize, define, analyze, and propose solutions to these problems. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences. This course may meet the SACS social/behavioral science requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.*

**SOC 230 Race and Ethnic Relations**

*Prerequisites:* Proficiency in Reading - A grade of “C” or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading  
*Corequisites:* None

This course includes an examination of the various aspects of race and ethnicity and how these lead to different experiences, opportunities, problems, and contributions. Topics include prejudice, discrimination, perceptions, myths, stereotypes, and intergroup relationships. Upon completion, students should be able to identify and analyze relationships among racial and ethnic groups within the larger society. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences. This course may meet the SACS social/behavioral science requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.*

**SOC 232 Social Context of Aging**

*Prerequisites:* Proficiency in Reading - A grade of “C” or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading  
*Corequisites:* None

This course provides an overview of the social implications of the aging process. Emphasis is placed on the roles of older adults within families, work and economics, politics, religion, education, and health care. Upon completion, students should be able to identify and analyze changing perceptions, diverse lifestyles, and social and cultural realities of older adults. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement. This course may meet the SACS social/behavioral science requirement for AGE, AAS, DIP, or CER programs.*
This course examines contemporary roles in society with special emphasis on recent changes. Topics include sex role socialization, myths and stereotypes, gender issues related to family, work, and power. Upon completion, students should be able to analyze modern relationships between men and women.

This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement. This course may meet the SACS social/behavioral science requirement for AGE, AAS, DIP, or CER programs.

### SOC 240 Social Psychology

<table>
<thead>
<tr>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>

Prerequisites: Proficiency in Reading - A grade of “C” or better in ENG 095 or RED 090 OR minimum Accuplacer score of 80 on Reading

Corequisites: None

This course examines the influence of culture and social groups on individual behavior and personality. Emphasis is placed on the process of socialization, communication, conformity, deviance, interpersonal attraction, intimacy, race and ethnicity, small group experiences, and social movements. Upon completion, students should be able to identify and analyze cultural and social forces that influence the individual in a society. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences. This course may meet the SACS social/behavioral science requirement for AA, AS, AFA, AGE, AAS, DIP, or CER programs.

### SOC 242 Sociology of Deviance

<table>
<thead>
<tr>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>

Prerequisites: SOC 210

Corequisites: None

This course provides an overview of deviant behavior and the processes involved in its definition, causation, prevention, control, and treatment. Topics include theories of causation, social control, delinquency, victimization, criminality, the criminal justice system, punishment, rehabilitation, and restitution. Upon completion, students should be able to identify and analyze issues surrounding the nature and development of social responses to deviance. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement. This course may meet the SACS social/behavioral science requirement for AGE, AAS, DIP, or CER programs.

### SON 110 Intro to Sonography

<table>
<thead>
<tr>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

Prerequisites: None

Corequisites: None

This course provides an introduction to medical sonography. Topics include applications, sonographic terminology, history, patient care, ethics, and basic skills. Upon completion, students should be able to define professionalism and sonographic applications and perform basic patient care skills and preliminary scanning techniques.

### SON 111 Sonographic Physics

<table>
<thead>
<tr>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>3</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

Prerequisites: CVS 163 or SON 110

Corequisites: None

This course introduces ultrasound physical principles, bioeffects, and sonographic instrumentation. Topics include sound wave mechanics, transducers, sonographic equipment, Doppler physics, bioeffects, and safety. Upon completion, students should be able to demonstrate knowledge of sound wave mechanics, transducers, sonography equipment, the Doppler effect, bioeffects, and safety.

### SON 120 SON Clinical Ed I

<table>
<thead>
<tr>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>15</td>
<td>5</td>
</tr>
</tbody>
</table>

Prerequisites: SON 110

Corequisites: None

This course provides active participation in clinical sonography. Emphasis is placed on imaging, processing, and technically evaluating sonographic examinations. Upon completion, students should be able to image, process, and evaluate sonographic examinations.

### SON 121 SON Clinical Ed II

<table>
<thead>
<tr>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>15</td>
<td>5</td>
</tr>
</tbody>
</table>

Prerequisites: SON 120

Corequisites: None

This course provides continued active participation in clinical sonography. Emphasis is placed on imaging, processing, and technically evaluating sonographic examinations. Upon completion, students should be able to image, process, and evaluate sonographic examinations.

### SON 130 Abdominal Sonography I

<table>
<thead>
<tr>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>

Prerequisites: None

Corequisites: None

This course introduces abdominal and small parts sonography. Emphasis is placed on the sonographic anatomy of the abdomen and small parts with correlated laboratory exercises. Upon completion, students should be able to recognize and acquire basic abdominal and small parts images.

### SON 131 Abdominal Sonography II

<table>
<thead>
<tr>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
<td>0</td>
<td>2</td>
</tr>
</tbody>
</table>

Prerequisites: SON 130

Corequisites: None

This course covers abdominal and small parts pathology recognizable on sonograms. Emphasis is placed on abnormal sonograms of the abdomen and small parts with correlated sonographic cases. Upon completion, students should be able to recognize abnormal pathological processes in the abdomen and on small parts sonographic examinations.
SON 140 Gynecological Sonography 2 0 0 2
Prerequisites: SON 110
Corequisites: None

This course is designed to relate gynecological anatomy and pathology to sonography. Emphasis is placed on gynecological relational anatomy, endovaginal anatomy, and gynecological pathology. Upon completion, students should be able to recognize normal and abnormal gynecological sonograms.

SON 220 Sonography Clinical Ed III 0 0 24 8
Prerequisites: SON 121
Corequisites: None

This course provides continued active participation in clinical sonography. Emphasis is placed on imaging, processing, and technically evaluating sonographic examinations. Upon completion, students should be able to image, process, and evaluate sonographic examinations.

SON 110 Elementary Spanish I 3 0 0 3
Prerequisites: Proficiency in Reading - A grade of “C” or better in ENG 085 or RED 080 OR minimum Accuplacer score of 57 on Reading
Corequisites: SPA 181

This course introduces the fundamental elements of the Spanish language within a cultural context. Emphasis is placed on the development of basic listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written Spanish and demonstrate cultural awareness. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. This course may meet the second SACS humanities/fine arts requirement for AA, AS, and AFA, programs.
Students who have completed two units of foreign language in high school are advised to take the CLEP (College Level Examination for Placement) before registering for SPA 111. The CLEP is given daily at the University of North Carolina-Wilmington Testing Center and requires a fee. Students should make an appointment by calling 910-362-7444. CFCC discourages students from taking elementary levels of global languages if they have had satisfactory grades in high school language courses.

SPA 112 Elementary Spanish II
Prerequisites: SPA 111
Corequisites: SPA 182

This course is a continuation of SPA 111 focusing on the fundamental elements of the Spanish language within a cultural context. Emphasis is placed on the progressive development of listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with increasing proficiency to spoken and written Spanish and demonstrate further cultural awareness. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. This course may meet the second SACS humanities/fine arts requirement for AA, AS, or AFA programs.

SPA 120 Spanish for the Workplace
Prerequisites: None
Corequisites: None

This course offers applied Spanish for the workplace to facilitate basic communication with people whose native language is Spanish. Emphasis is placed on oral communication and career-specific vocabulary that targets health, business, and/or public service professions. Upon completion, students should be able to communicate at a functional level with native speakers and demonstrate cultural sensitivity.

SPA 141 Culture and Civilization
Prerequisites: None
Corequisites: None

This course provides an opportunity to explore issues related to the Hispanic world. Topics include historical and current events, geography, and customs. Upon completion, students should be able to identify and discuss selected topics and cultural differences related to the Hispanic world. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement. This course may meet the SACS humanities/fine arts requirement for AGE, AAS, DIP, or CER programs.

SPA 161 Cultural Immersion
Prerequisites: SPA 111
Corequisites: None

This course explores Hispanic culture through intensive study on campus and field experience in a host country or area. Topics include an overview of linguistic, historical, geographical, sociopolitical, economic, and/or artistic concerns of the area visited. Upon completion, students should be able to exhibit first-hand knowledge of issues pertinent to the host area and demonstrate understanding of cultural differences. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement. This course may meet the SACS social/behavioral science requirement for AGE, AAS, DIP, or CER programs.

SPA 181 Spanish Lab 1
Prerequisites: Proficiency in Reading - A grade of “C” or better in ENG 085 or RED 080 OR minimum Accuplacer score of 57 on Reading
Corequisites: SPA 111

This course provides an opportunity to enhance acquisition of the fundamental elements of the Spanish language. Emphasis is placed on the progressive development of basic listening, speaking, reading, and writing skills through the use of various supplementary learning media and materials. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written Spanish and demonstrate cultural awareness. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

Students who have completed two units of foreign language in high school are advised to take the CLEP (College Level Examination for Placement) before registering for SPA 111. The CLEP is given daily at the University of North Carolina-Wilmington Testing Center and requires a fee. Students should make an appointment by calling 910-362-7444. CFCC discourages students from taking elementary levels of global languages if they have had satisfactory grades in high school language courses.

SPA 182 Spanish Lab 2
Prerequisites: SPA 181
Corequisites: SPA 112

This course provides an opportunity to enhance acquisition of the fundamental elements of the Spanish language. Emphasis is placed on the progressive development of basic listening, speaking, reading, and writing skills through the use of various supplementary learning media and materials. Upon completion, students should be able to comprehend and respond with increasing proficiency to spoken and written Spanish and demonstrate cultural awareness. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.
<table>
<thead>
<tr>
<th>COURSE DESCRIPTIONS</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SPA 211 Intermediate Spanish I</strong>&lt;br&gt;Prerequisites: SPA 112&lt;br&gt;Corequisites: None</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>This course provides a review and expansion of the essential skills of the Spanish language. Emphasis is placed on the study of authentic and representative literary and cultural texts. Upon completion, students should be able to communicate effectively, accurately, and creatively about the past, present, and future. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. This course may meet the SACS humanities/fine arts requirement for AA, AS, or AFA programs.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SPA 212 Intermediate Spanish II</strong>&lt;br&gt;Prerequisites: SPA 211&lt;br&gt;Corequisites: None</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>This course provides a continuation of SPA 211. Emphasis is placed on the continuing study of authentic and representative literary and cultural texts. Upon completion, students should be able to communicate spontaneously and accurately with increasing complexity and sophistication. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. This course may meet the SACS humanities/fine arts requirement for AA, AS, or AFA programs.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SPA 215 Spanish Phonetics/Structure</strong>&lt;br&gt;Prerequisites: None&lt;br&gt;Corequisites: None</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>This course is designed to improve the understanding of Spanish phonetics and the structure of the Spanish language. Topics include the structure of the Spanish language, phonology, morphology, and syntax. Upon completion, students should have an understanding of the phonetics and structure of the Spanish language and be able to contrast the structure of the Spanish and English languages.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SPA 221 Spanish Conversation</strong>&lt;br&gt;Prerequisites: SPA 212&lt;br&gt;Corequisites: None</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>This course provides an opportunity for intensive communication in spoken Spanish. Emphasis is placed on vocabulary acquisition and interactive communication through the discussion of media materials and authentic texts. Upon completion, students should be able to discuss selected topics, express ideas and opinions clearly, and engage in formal and informal conversations. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SPA 231 Reading and Composition</strong>&lt;br&gt;Prerequisites: SPA 212&lt;br&gt;Corequisites: None</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>This course provides an opportunity for intensive reading and composition in Spanish. Emphasis is placed on the use of literary and cultural materials to enhance and expand reading and writing skills. Upon completion, students should be able to demonstrate in writing an in-depth understanding of assigned readings. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SPA 281 Spanish Lab 3</strong>&lt;br&gt;Prerequisites: SPA 182&lt;br&gt;Corequisites: SPA 211</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>This course provides an opportunity to enhance the review and expansion of the essential skills of the Spanish language. Emphasis is placed on the study of authentic and representative literary and cultural texts through the use of various supplementary learning media and materials. Upon completion, students should be able to communicate effectively, accurately, and creatively about the past, present, and future. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SPA 282 Spanish Lab 4</strong>&lt;br&gt;Prerequisites: SPA 281&lt;br&gt;Corequisites: SPA 212</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>This course provides an opportunity to enhance the review and expansion of the essential skills of the Spanish language. Emphasis is placed on the continuing study of authentic and representative literary and cultural texts through the use of various supplementary learning media and materials. Upon completion, students should be able to communicate spontaneously and accurately with increasing complexity and sophistication. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SPI 113 Intro to Spanish Interpreting</strong>&lt;br&gt;Prerequisites: ENG 111&lt;br&gt;Corequisites: None</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>This course introduces the field of interpreting, interpretation models, cognitive processes associated with interpretation, professional ethical standards, employment opportunities, and working conditions. Topics include specialized jargon, code of ethics, interpreter assessments/qualifications, and protocol associated with various settings. Upon completion, students should be able to explain the rationale for placement of interpreters and apply ethical standards to a variety of working situations.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
SPI 114 Analytical Skills
Spanish Interpreting
Prerequisites: None
Corequisites: None

This course is designed to improve cognitive processes associated with interpreting, listening, short-term memory, semantic equivalence, visual/auditory processing, thought organization and logic. Emphasis is placed on developing skills necessary to generate equivalent messages between Spanish and English. Upon completion, students should be able to consecutively interpret non-technical, interactive messages between Spanish and English.

SPI 213 Review of Grammar
Prerequisites: None
Corequisites: None

This course is designed to review the common elements of Spanish grammar in oral and written form. Emphasis is placed on the fundamental grammatical concepts of the Spanish language. Upon completion, students should be able to demonstrate comprehension and correct usage of specified grammatical concepts in both oral and written form.

SPI 214 Intro to Translation
Prerequisites: None
Corequisites: None

This course is designed to improve the quality of Spanish to English and English to Spanish translation. Emphasis is placed on the practice of Spanish to English and English to Spanish translation in a variety of prose styles. Upon completion, students should be able to demonstrate the usage and understanding of the processes involved in translating.

SPI 245 Community Interpreting I
Prerequisites: None
Corequisites: None

This course is designed to expose students to interpreting in areas such as social services, business and industry. Emphasis is placed on the development of social services, business and industry vocabulary through role-play. Upon completion, students should be able to consecutively interpret basic messages in a variety of social services, business and industry situations.

SST 110 Intro to Sustainability
Prerequisites: None
Corequisites: None

This course introduces sustainability issues and individual contributions toward environmental sustainability. Topics include management processes needed to maximize renewable/non-renewable energy resources, economics of sustainability, and reduction of environmental impacts. Upon completion, students should be able to discuss sustainability practices and demonstrate an understanding of their effectiveness and impacts.

SST 120 Energy Use Analysis
Prerequisites: A grade of “C” or better in MAT 060 OR successful completion of DMA 010, DMA 020, and DMA 030
Corequisites: None

This course introduces the principles of analyzing energy use, energy auditing tools and techniques, conservation techniques, and calculating energy savings. Topics include building system control theory, calibrating digital controls, energy loss calculations, and applicable conservation techniques. Upon completion, students should be able to demonstrate an understanding of energy use, audits, and controls in the analysis of energy consumption.

SST 130 Modeling Renewable Energy
Prerequisites: None
Corequisites: None

This course introduces software and other technologies used for modeling renewable energy systems. Topics include renewable energy modeling software applications, data analysis, renewable energy sources, and cost of renewable energy systems. Upon completion, students should be able to use appropriate technology to model the effectiveness of renewable energy systems.

SST 140 Green Building and Design Concepts
Prerequisites: None
Corequisites: None

This course is designed to introduce the student to sustainable building design and construction principles and practices. Topics include sustainable building rating systems and certifications, energy efficiency, indoor environmental quality, sustainable building materials and water use. Upon completion, students should be able to identify the principles and practices of sustainable building design and construction.

SST 210 Issues in Sustainability
Prerequisites: SST 110
Corequisites: None

This course introduces the long-term impacts and difficulties of applying sustainability concepts in an organization, business, or society. Topics include the application of sustainable technologies and the analysis of affordability, efficiencies, recycling, and small and large-scale design. Upon completion, students should be able to recognize the possible limitations of sustainable technologies and be prepared to reconcile such conflicts.
### COURSE DESCRIPTIONS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Prerequisites</th>
<th>Corequisites</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>SST 250</td>
<td>Sustain Capstone Project</td>
<td>SST 110</td>
<td>None</td>
<td>1</td>
<td>6</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>SUR 110</td>
<td>Intro to Surg Tech</td>
<td>None</td>
<td>SUR 111</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>SUR 111</td>
<td>Periop Patient Care</td>
<td>None</td>
<td>SUR 110</td>
<td>5</td>
<td>6</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>SUR 122</td>
<td>Surgical Procedures I</td>
<td>SUR 110 and SUR 111</td>
<td>SUR 123 or STP 101</td>
<td>5</td>
<td>3</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>SUR 123</td>
<td>SUR Clinical Practice I</td>
<td>SUR 110 and SUR 111</td>
<td>SUR 122</td>
<td>0</td>
<td>0</td>
<td>21</td>
<td>7</td>
</tr>
<tr>
<td>SUR 125</td>
<td>SUR Clinical Practice II</td>
<td>SUR 123 SUR Clinical Practice I</td>
<td>SUR 134</td>
<td>0</td>
<td>0</td>
<td>12</td>
<td>4</td>
</tr>
<tr>
<td>SUR 134</td>
<td>Surgical Procedures II</td>
<td>SUR 123 or STP 101</td>
<td>None</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>SUR 135</td>
<td>Surgical Procedures III</td>
<td>SUR 123</td>
<td>SUR 134</td>
<td>0</td>
<td>0</td>
<td>12</td>
<td>4</td>
</tr>
<tr>
<td>SUR 137</td>
<td>Prof Success Prep</td>
<td>SUR 123</td>
<td>SUR 134 and SUR 135</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>SUR 210</td>
<td>Adv SUR Clinical Practice</td>
<td>None</td>
<td>None</td>
<td>0</td>
<td>0</td>
<td>6</td>
<td>2</td>
</tr>
</tbody>
</table>

This course introduces an integrated team approach to a sustainability topic of interest to students, faculty, or professional community. Topics include problem identification, proposal preparation, conceptual design, and an effective project work schedule. Upon completion, students should be able to integrate the many facets of a topic based on environmental sustainability into a completed project.

This course provides a comprehensive study of peri-operative care, patient care concepts, and professional practice concepts within the profession of surgical technology. Topics include: introductory concepts, organizational structure and relationships, legal, ethical and moral issues, medical terminology, pharmacology, anesthesia, wound healing management concepts, and the technological sciences. Upon completion, students should be able to apply theoretical knowledge of the course topics to the practice of surgical technology.

This course provides the technical skills, critical thinking, speed, efficiency, and autonomy in the operative setting. Upon completion, students should be able to correlate, integrate, and apply theoretical knowledge of the course topics to the clinical operative environment.

This course provides clinical experience with a variety of perioperative assignments to build upon skills learned in SUR 111. Emphasis is placed on the scrub and circulating roles of the surgical technologist including aseptic technique and basic case preparation for selected surgical procedures. Upon completion, students should be able to prepare, assist with, and dismantle basic surgical cases in both the scrub and circulating roles.

This course provides a comprehensive study of intermediate and advanced surgical specialties that students are exposed to in the second clinical rotation. Emphasis is placed on related surgical anatomy, pathology, and procedures that enhance theoretical knowledge of patient care, instrumentation, supplies, and equipment. Upon completion, students should be able to correlate, integrate, and apply theoretical knowledge of the course topics to the clinical operative environment.

This course provides employability skills and an overview of theoretical knowledge in preparation for certification. Topics include test-taking strategies, resume preparation, interviewing strategies, communication skills, and teamwork concepts. Upon completion, students should be able to prepare a resume, demonstrate appropriate interview techniques, and identify strengths and weaknesses in preparation for certification.

This course is designed to provide individualized experience in advanced practice, education, circulating, and managerial skills. Emphasis is placed on developing and demonstrating proficiency in skills necessary for advanced practice. Upon
completion, students should be able to assume leadership roles in a chosen specialty area.

SUR 211 Adv Theoretical Concepts  2  0  0  2
Prerequisites: None
Corequisites: None

This course covers theoretical knowledge required for extension of the surgical technologist role. Emphasis is placed on advanced practice in complex surgical specialties, educational methodologies, and managerial skills. Upon completion, students should be able to assume leadership roles in a chosen specialty area.

TNE 245 Netwk Perimeter Security  2  3  0  3
Prerequisites: CET 240
Corequisites: None

This course introduces a variety of ways to implement security into network designs and upgrades. Topics include securing the network through the use of access lists, routers, firewalls, and stateful packet filtering. Upon completion, students should be able to demonstrate a variety of techniques to harden the network from outside threats.

TNE 255 Network Servers  2  3  0  3
Prerequisites: ELN 237
Corequisites: None

This course covers the activities and methods required to assure productive and reliable operation of network servers. Topics include planning, installing, configuring, and maintaining servers, including knowledge of server-level hardware implementations, operating systems, data storage subsystems, data recovery, and I/O subsystems. Upon completion, students should be able to configure and maintain a network server.

TRF 110 Intro Turfgrass Cult & ID  3  2  0  4
Prerequisites: None
Corequisites: None

This course covers the principles of reproduction, growth development, species characteristics, establishment and maintenance of golf courses and sports fields, and lawns. Topics include principles of reproduction, growth development, species characteristics, establishment and maintenance of golf courses and sports fields, and lawn applications. Upon completion, students should be able to identify turfgrass species and develop an establishment and maintenance plan for high quality turf areas in accordance with sustainable practices.

TRN 110 Intro to Transport Tech  1  2  0  2
Prerequisites: None
Corequisites: None

This course covers workplace safety, hazardous materials, environmental regulations, hand tools, service Information, basic concepts, vehicle systems, and common transportation industry terminology. Topics include familiarization with major vehicle systems, proper use of various hand and power tools, material safety data sheets, and personal protective equipment. Upon completion, students should be able to demonstrate appropriate safety procedures, identify and use basic shop tools, and describe government regulations regarding transportation repair facilities.

TRN 120 Basic Transp Electricity  4  3  0  5
Prerequisites: Proficiency in Reading - A grade of “C” or better in ENG 085 or RED 080 OR minimum Accuplacer score of 57 on Reading
Corequisites: None

This course covers basic electrical theory, wiring, diagrams, test equipment, and diagnosis, repair and replacement of batteries, starters, and alternators. Topics include Ohm’s Law, circuit construction, wiring diagrams, circuit testing, and basic troubleshooting. Upon completion, students should be able to properly use wiring diagrams, diagnose, test and repair basic wiring, battery, starting, charging, and electrical concerns.

TRN 130 Intro to Sustainable Transp  2  2  0  3
Prerequisites: None
Corequisites: None

This course provides an overview of alternative fuels and alternative fuel vehicles. Topics include composition and use of alternative fuels including compressed natural gas, biodiesel, ethanol, hydrogen, and synthetic fuels, hybrid/electric, and vehicles using alternative fuels. Upon completion, students should be able to identify alternative fuel vehicles, explain how each alternative fuel delivery system operates, and perform minor repairs.

TRN 140 Transp Climate Control  1  2  0  2
Prerequisites: None
Corequisites: None

This course covers the theory of refrigeration and heating, electrical/electronic/pneumatic controls, and diagnosis and repair of climate control systems. Topics include diagnosis and repair of climate control components and system, recovery/recycling of refrigerants, and safety and environmental regulations. Upon completion, students should be able to diagnose and repair vehicle climate control systems.

TRN 140A Transp Climate Cont Lab  1  2  0  2
Prerequisites: None
Corequisites: TRN 140

This course provides experiences for enhancing student skills in the diagnosis and repair of transportation climate control systems. Emphasis is placed on reclaiming, recovery, recharging, leak detection, climate control components, diagnosis, air conditioning equipment, tools and safety. Upon completion, students should be able to describe the operation, diagnose, and safely service climate control systems using appropriate tools, equipment, and service information.
COURSE DESCRIPTIONS

<table>
<thead>
<tr>
<th>COURSE</th>
<th>Class</th>
<th>Lab</th>
<th>Clinical</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRN 145 Adv Transp Electronics</td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Prerequisites: TRN 120</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corequisites: None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>This course covers advanced transportation electronic systems including programmable logic controllers, on-board data networks, telematics, high voltage systems, navigation, collision avoidance systems and electronic accessories. Topics include interpretation of wiring schematics, reprogramming PLSs, diagnosing and testing data networks and other electronic concerns. Upon completion, students should be able to reprogram PLSs, diagnose and test data networks and electronic concerns, and work safely with high voltage systems.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| TRN 180 Basic Welding for Transp| 1     | 4   | 0        | 3      |
| Prerequisites: None            |       |     |          |        |
| Corequisites: None             |       |     |          |        |
| This course covers the terms and procedures for welding various metals used in the transportation Industry with an emphasis on personal safety and environmental health. Topics include safety and precautionary measures, setup/operation of MIG equipment, metal identification methods, types of welds/joints, techniques, inspection methods, cutting processes and other related issues. Upon completion, students should be able to demonstrate a basic knowledge of welding operations and safety procedures according to industry standard. |

| TRP 100 Truck Driver Training  | 6     | 18  | 0        | 12     |
| Prerequisites: None           |       |     |          |        |
| Corequisites: None            |       |     |          |        |
| This course provides training in inspecting and driving tractor trailers and assuming driver responsibilities on the road and at pickup and delivery points. Emphasis is placed on defensive driving, federal motor carrier safety regulations, trip planning, cargo handling, vehicle systems, hours of service, and accident prevention. Upon completion, students should be able to demonstrate the skills required for the commercial driver’s license and employment. |

| WEB 210 Web Design            | 2     | 2   | 0        | 3      |
| Prerequisites: CIS 110 or CIS 111 |     |     |          |        |
| Corequisites: None            |       |     |          |        |
| This course introduces intermediate to advanced web design techniques. Topics include customer expectations, advanced markup language, multimedia technologies, usability and accessibility practices, and techniques for the evaluation of web design. Upon completion, students should be able to employ advanced design techniques to create high impact and highly functional web sites. |

| WLD 110 Cutting Processes     | 1     | 3   | 0        | 2      |
| Prerequisites: None           |       |     |          |        |
| Corequisites: None            |       |     |          |        |
| This course introduces oxy-fuel and plasma-arc cutting systems. Topics include safety, proper equipment setup, and operation of oxy-fuel and plasma-arc cutting equipment with emphasis on straight line, curve and bevel cutting. Upon completion, students should be able to oxy-fuel and plasma-arc cut metals of varying thickness. |

| WLD 112 Basic Welding Processes| 1     | 3   | 0        | 2      |
| Prerequisites: None           |       |     |          |        |
| Corequisites: None            |       |     |          |        |
| This course introduces basic welding and cutting. Emphasis is placed on beads applied with gases, mild steel fillers, and electrodes and the capillary action of solder. Upon completion, students should be able to set up welding and oxy-fuel equipment and perform welding, brazing, and soldering processes. |

| WLD 115 SMAW (Stick) Plate    | 2     | 9   | 0        | 5      |
| Prerequisites: None           |       |     |          |        |
| Corequisites: None            |       |     |          |        |
| This course introduces the shielded metal arc (stick) welding process. Emphasis is placed on padding, fillet, and groove welds in various positions with SMAW electrodes. Upon completion, students should be able to perform SMAW fillet and groove welds on carbon plate with prescribed electrodes. |

| WLD 116 SMAW (Stick) Plate/Pipe| 1     | 9   | 0        | 4      |
| Prerequisites: WLD 115        |       |     |          |        |
| Corequisites: None            |       |     |          |        |
| This course is designed to enhance skills with the shielded metal arc (stick) welding process. Emphasis is placed on advancing manipulative skills with SMAW electrodes on varying joint geometry. Upon completion, students should be able to perform groove welds on carbon steel with prescribed electrodes in the flat, horizontal, vertical, and overhead positions. |

| WLD 121 GMAW (MIG) FCAW/Plate | 2     | 6   | 0        | 4      |
| Prerequisites: WLD 110 or WLD 112 |   |     |          |        |
| Corequisites: None            |       |     |          |        |
| This course introduces metal arc welding and flux core arc welding processes. Topics include equipment setup and fillet and groove welds with emphasis on application of GMAW and FCAW electrodes on carbon steel plate. Upon completion, students should be able to perform fillet welds on carbon steel with prescribed electrodes in the flat, horizontal, and overhead positions. |
WLD 131 GTAW (TIG) Plate
Prerequisites: None
Corequisites: None
This course introduces the gas tungsten arc (TIG) welding process. Topics include correct selection of tungsten, polarity, gas, and proper filler rod with emphasis placed on safety, equipment setup, and welding techniques. Upon completion, students should be able to perform GTAW fillet and groove welds with various electrodes and filler materials.

WLD 132 GTAW (TIG) Plate/Pipe
Prerequisites: WLD 131
Corequisites: None
This course is designed to enhance skills with the gas tungsten arc (TIG) welding process. Topics include setup, joint preparation, and electrode selection with emphasis on manipulative skills in all welding positions on plate and pipe. Upon completion, students should be able to perform GTAW welds with prescribed electrodes and filler materials on various joint geometry.

WLD 141 Symbols & Specifications
Prerequisites: None
Corequisites: None
This course introduces the basic symbols and specifications used in welding. Emphasis is placed on interpretation of lines, notes, welding symbols, and specifications. Upon completion, students should be able to read and interpret symbols and specifications commonly used in welding.

WLD 143 Welding Metallurgy
Prerequisites: None
Corequisites: None
This course introduces the concepts of welding metallurgy. Emphasis is placed on basic metallurgy, effects of welding on various metals, and metal classification and identification. Upon completion, students should be able to understand basic metallurgy, materials designation, and classification systems used in welding.

WLD 215 SMAW (Stick) Pipe
Prerequisites: WLD 115 or WLD 116
Corequisites: None
This course covers the knowledge and skills that apply to welding pipe. Topics include pipe positions, joint geometry, and preparation with emphasis placed on bead application, profile, and discontinuities. Upon completion, students should be able to perform SMAW welds to applicable codes on carbon steel pipe with prescribed electrodes in various positions.

WLD 231 GTAW (TIG) Pipe
Prerequisites: WLD 132
Corequisites: None
This course covers gas tungsten arc welding on pipe. Topics include joint preparation and fit up with emphasis placed on safety, GTAW welding technique, bead application, and joint geometry. Upon completion, students should be able to perform GTAW welds to applicable codes on pipe with prescribed electrodes and filler materials in various pipe positions.

WLD 262 Inspection & Testing
Prerequisites: None
Corequisites: None
This course introduces destructive and non-destructive testing methods. Emphasis is placed on safety, types and methods of testing, and the use of testing equipment and materials. Upon completion, students should be able to understand and/or perform a variety of destructive and non-destructive testing processes.