# Course Descriptions

## ACCT (Accounting)

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<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
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<tbody>
<tr>
<td>ACCT 1010</td>
<td>Financial Accounting</td>
<td>4</td>
<td>This course presents the objectives and basic procedures of accounting for a business organized as a corporation. Topics covered include the accounting cycle for service and merchandising firms, accounting for short-term liquid assets, inventories, long-term assets and current liabilities. Lecture: 5 hours.</td>
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<tr>
<td>ACCT 1020</td>
<td>Managerial Accounting</td>
<td>4</td>
<td>This course covers the use of accounting data by an organization's management. Topics include the statement of cash flows, financial statement analysis, an introduction to manufacturing accounting concepts, cost-volume-profit analysis, budgeting, capital expenditure decisions, just-in-time and activity-based costing concepts. (Prerequisite: ACCT 1010) Lecture: 5 hours.</td>
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<tr>
<td>ACCT 1030</td>
<td>Computerized Accounting</td>
<td>3</td>
<td>The course integrates the processing of accounting information with the use of a commercial general ledger software package. An initial presentation of the software is included to develop a specific understanding of menus and navigation techniques. Discussion focuses on setup, maintenance, information entry and report generation. Specific topics of the accounting cycle are presented including journal transactions, accounts receivable, accounts payable, inventory, payroll, financial statements and special projects. NOTE: May be taken concurrently with ACCT 1020. (Prerequisite: ACCT 1010) Lecture: 1.5 hours, Lab: 1.5 hours - Lab Fee: $20</td>
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<tr>
<td>ACCT 1500</td>
<td>Personal Income Taxes</td>
<td>3</td>
<td>This course provides an overview of the tax problems confronting individuals on the federal level. Tax situations involving incomes, exemptions, deductions and capital gains and losses are undertaken and the pertinent tax forms are discussed. Lecture: 3 hours</td>
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<tr>
<td>ACCT 2010</td>
<td>Intermediate Accounting I</td>
<td>4</td>
<td>This course involves advanced work on concepts and principles of accounting. Topics include financial statements, cash, temporary investments, receivables and inventories. (Prerequisite: ACCT 1020) Lecture: 5 hours.</td>
</tr>
<tr>
<td>ACCT 2020</td>
<td>Intermediate Accounting II</td>
<td>4</td>
<td>A continuation of ACCT 2010, this course covers the study of the more advanced phases of analysis of financial statements, investments and fixed assets; depreciation and depletion; intangible assets; current and long-term liabilities and stockholders' equity. (Prerequisite: ACCT 2010) Lecture: 5 hours.</td>
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## ADAS (Administrative Assistant)

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<tr>
<td>ADAS 2510</td>
<td>Microsoft Office Applications II</td>
<td>3</td>
<td>This course will provide students with further training on Microsoft Office applications that include advanced Word and intermediate Excel using a hands-on approach. In addition, students will continue to develop their keyboarding skills and accuracy. A keyboarding speed range of 30 to 55 wpm is required for this course. Prerequisite: OFTD 1220 or permission of instructor Lecture: 3 hours, Lab: 1 hour - Lab Fee: $20</td>
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<tr>
<td>ADAS 2520</td>
<td>Office Transcription II</td>
<td>2</td>
<td>This course continues to develop proficiency in transcribing from tapes to mailable copy. It is designed to further refine and integrate office skills and applications. Emphasis is on the advanced application of language art skills in the production of written communications. Prerequisite: OFTD 1170 and 1280 or permission of instructor Lecture: 2 hours, Lab: 1 hour - Lab Fee: $20</td>
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ADAS 2530 - Office Technology & Procedures II  
(3 Credits)  
This capstone course enables students to integrate the skills previously learned in the program via a career-related office simulation. Students continue to learn Outlook as well as gaining knowledge of planning meetings and conferences. In addition, students research business data and learn about parliamentary procedures. Emphasis is placed on the development and exercise of decision-making ability and human relations skills. Prerequisite: OFTD 1140 Lecture: 3 hours

ADAS 2570 - Administrative Office Management  
(3 Credits)  
This course deals with the strategies and issues related to effective supervision of employees who work in an office environment. The relationship between office productivity and management activities such as planning, scheduling, organizing, implementing, evaluating and controlling is examined. Lecture: 3 hours

ADAS 2580 - Office Administration Cooperative Education I  
(3 Credits)  
This is a planned and supervised cooperative work experience that provides students with an opportunity to observe and participate in a work environment related to their academic interests. Students attend class on campus during weeks one through five then work approximately 13 hours a week in an approved Cooperative Work Experience Placement during weeks six through 15. (Prerequisites: Enrollment in Office Administration program and completion of 24 credits in that program, and 2.0 GPA or permission of instructor) Lecture 25 hours total, CO-OP: 130 hours total

ADAS 2610 - Microsoft Office Applications III  
(3 Credits)  
This course continues to develop Microsoft Office skills in the areas of Access, Excel and PowerPoint. Students will continue to develop their keyboarding speed and accuracy. A keyboarding range of 35 to 60 wpm is required for this course. (Prerequisite: OFTD 1220) Lecture: 3 hours, Lab: 1 hour - Lab Fee: $20

ARAB (Arabic)

ARAB 1000 - Basic Spoken Arabic  
(3 Credits)  
This is an introductory elective course for beginners emphasizing correct pronunciation and basic vocabulary for practical use in everyday conversational situations and travel dialogues. Students with no previous study of the language are prepared to use and understand it within a limited context and basic structure. Lecture: 3 hours

ARTS (Art)

ARTS (ART)  
This listing of Art courses includes new course numbers and descriptions. Students should review course listings carefully and consult with academic advisers or Art Department faculty to ensure proper course sequence and avoid duplication of course credits.

Art course numbers:

ARTS 1001 through ARTS 1009 are introductory level courses and are open to all students. These courses offer fine arts elective credit for non-art students and liberal arts elective credit for Art majors.

ARTS 1010 through ARTS 1599 are basic foundation level courses and are open to all students. These courses are either required or recommended for Art majors and are strongly recommended for Liberal Arts or General Studies program majors.

ARTS 1600 through ARTS 1999 are open to all students and provide basic study in a variety of art disciplines. Previous study in a foundation level course may be recommended but not required. Other prerequisites may apply.

Courses numbered ARTS 2000 and above are designed for continued work after basic studies have been completed. More than one prerequisite may be required.
### ARTS 1001 - Introduction to Visual Arts
(3 Credits)
This course is an introduction to the basic principles of analyzing and understanding the visual arts. Vocabulary, techniques and a brief history of art are covered with slide lectures, reading and discussion, studio art/design assignments and gallery visits. (Note: Visual Arts elective credit for non-art majors and liberal arts elective credit for art majors) Lecture/studio: 4 hours

### ARTS 1010 - Drawing I
(3 Credits)
This course covers basic drawing processes and techniques. Fundamental skills are developed through a variety of approaches from short exercises to longer compositional studies. Emphasis is on drawing from observation including the depiction of form, light, and space. Studio: 6 hours - Art Studio Fee: $50

### ARTS 1020 - Color
(3 Credits)
The course is an introduction to the basic principles and theories of color. Students develop an understanding of fundamental color concepts as they apply to all areas of the visual arts. Color properties and relationships are explored and utilized through studio projects. Classes include lectures, demonstrations, studio assignments, and critiques. (Prerequisite: NONE although ARTS 1010 or ARTS 1310 is recommended). Studio: 6 hours - Art Studio Fee: $50

### ARTS 1030 - Introduction to Printmaking
(3 Credits)
Introduction to Printmaking is a studio course in basic printmaking skills with equal focus on concept and technique. Students experiment with a variety of printmaking processes including collagraph, intaglio, litho, transfer, and monotype, providing the opportunity to work with a range of printmaking methods and materials. This course will examine the language of printmaking as a unique art form and establish a basis for further work in the medium. Using a variety of approaches, in both black and white and color, students will explore ways they may develop their individual vision through the creation of original prints. (Prerequisite: NONE although ARTS 1010 or ARTS 1310 is recommended). Studio: 6 hours - Art Studio Fee: $50

### ARTS 1035 - Relief Printmaking/Graphic Illustration
(3 Credits)
This course introduces students to relief printing processes as used by a range including printmakers, designers, illustrators and book artists. The course covers woodcut, linocut and photosensitive plates using hand drawn and digitally produced transparencies. Students learn to use hand tools, printmaking presses and exposure equipment to create, ink, and print their images. Through examples demonstrations and studio-based assignments, students are introduced to the history and vocabulary of relief printmaking. We will experiment with relief printmaking as a method of visual communication, including visual storytelling and narrative, addressing a broad range of ideas, issues and aesthetics to create a portfolio of printed work. No prior printing experience is necessary. Course Completes the Following Requirement(s): FINE: Fine Arts and HUMN: Humanities Requirement - Lab Fee: $20

### ARTS 1050 - Drawing II Life Drawing
(3 Credits)
This course offers an introduction to the study of the human figure and its relationship to the environment. Students draw from both nude models and skeletons. (Prerequisite: ARTS 1010). Studio: 6 hours - Art Studio Fee: $50

### ARTS 1310 - Two-Dimensional Design
(3 Credits)
This studio course introduces students to the elements, principles and construction methods used in making art and design in three dimensions. Using simple materials such as wire, cardboard, Foam-core and plaster, students learn to organize forms in space. The elements of three-dimensional design, including line, plane, volume and mass; and the principles of three-dimensional design, including repetition, variety, rhythm, balance,
emphasis and economy, will be studied and used in the making of studio projects. Classes include lectures, demonstrations, studio assignments and critiques. Studio: 6 hours - Art Studio Fee: $50

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<tr>
<td>ARTS 1420</td>
<td>4D Animation and Design</td>
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<td>This course examines the basic elements of art and design in space and time. Students are introduced to artists working with 4D and New Media Arts to explore their own ideas, spaces and time-based techniques while developing critical thinking in relation to subject, medium, form and content and how all of these can create or effect meaning in 4D art. Students will create works of art using time based techniques such as time lapse, basic cell animation, stop motion, go motion, basic green screen, and sound. Studio: 6 hours - Art Studio Fee: $50</td>
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<td>ARTS 1500</td>
<td>Art Seminar</td>
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<td>Required of all AFA graduates, Fine Art Seminar is a keystone course which prepares students to set and pursue goals, such as: transfer to a four-year art program, or to explore careers in the fields of art and design. Seminar topics include: portfolio preparation, resume development, art school selection, photographing of artwork and exhibition construction. Students will participate in a professionally designed group exhibition which will be held at least once a year in the college’s galleries. (Prerequisites: at least 2 studio courses and 1 art history course or permission of the instructor. Recommended: This class should be taken during the 3rd semester of the student's program of studies.) Lecture/Studio: 3 hours</td>
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<td>ARTS 1510</td>
<td>Art History: Ancient to Medieval</td>
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<td>This course is a survey of visual art from prehistory through Gothic Europe. Emphasis is placed on how art, architecture and functional objects provide evidence of the religious beliefs and cultural structures of early civilizations. Regions covered include Egypt, the Near East and Europe. Lecture: 3 hours</td>
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<td>ARTS 1520</td>
<td>Art History: Renaissance to Modern</td>
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<td>This course is a survey of visual art and architecture from the Renaissance through the 20th century, focused primarily upon European and American study. The manner in which art both reflects and shapes history is a central means of exploration, leading to the complexities of art in the Post-Modern period. (Recommended: ARTS 1510 ) Lecture: 3 hours</td>
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<td>ARTS 1530</td>
<td>Art History: Africa, Asia, Oceania and the Americas</td>
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<td>This course introduces artistic traditions of people in in Africa, Asia, Oceania, and the Americas and explores how examples drawn from historical and contemporary sources convey expressive meaning, relate to religion and philosophy, and reflect historical, political, and economic conditions. Rather than attempt to gain a comprehensive knowledge of a single region or culture, specific topics of inquiry provide insights about how material choices, forms and designs communicate knowledge related to spiritual beliefs and cultural traditions. Through readings and research, the course examines both Western and local/indigenous perspectives related to art around the globe. Lecture: 3 hours</td>
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<td>ARTS 1550</td>
<td>Art History: Modern through Contemporary</td>
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<td>This course identifies and analyzes art after 1945 in the U.S. and prominent art centers internationally. Emphasis is placed on artists’ philosophies, art media and processes, and the role of art in society, politics and culture. Major movements in Modernism, Post-Modernism and Contemporary are addressed. Topics are presented through reading, lecture, discussion, writing, video, and museum/gallery visits. Lecture: 3 hours, Lab 1 hour</td>
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<tr>
<td>ARTS 1610</td>
<td>Textile Design/Fibers</td>
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<td>This course is designed to introduce students to a variety of dyeing and surface design techniques on fabric, with an emphasis on learning the elements and principles of two-dimensional design. Techniques may include shibori tie-dye, batik wax-resist, paste-resist, block printing and photo transfer. Traditional and contemporary examples of these processes are presented and good craftsmanship is emphasized. (Recommended: ARTS 1010 or 1020 or 1310). Studio: 6 hours - Art Studio Fee: $50</td>
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<tr>
<td>ARTS 1630</td>
<td>Introduction to Sculpture and Form</td>
<td>3</td>
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<td>Concept development and structural problem-solving are emphasized in this study of sculpture and three-dimensional form. Studio assignments evolve out of an examination of historical and contemporary examples of sculpture, architecture, design and engineering, as well as forms found in</td>
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the natural world. Classes include demonstrations, studio assignments, critiques and lectures. (Recommended: ARTS 1410). Studio: 6 hours - Art Studio Fee: $50

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<tr>
<td>ARTS 1650</td>
<td>Ceramics I</td>
<td>3</td>
<td>This course acts as an introduction to fine art ceramics. Coil, slab and other basic hand building methods as well as glazing and various kiln firing methods are covered. Kiln and basic glazes are provided; clay and tools must be purchased. (Recommended: ARTS 1410). Studio: 6 hours - Art Studio Fee: $50</td>
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<tr>
<td>ARTS 1660</td>
<td>Ceramics II</td>
<td>3</td>
<td>This is a continuation of fine arts ceramics using advanced hand-building techniques. Wheel throwing, glaze formulation, kiln management and alternative firing methods are introduced. Kiln and basic glazes are provided; clay and tools must be purchased. (Prerequisite: ARTS 1650 or permission of instructor). Studio: 6 hours - Art Studio Fee: $50</td>
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<tr>
<td>ARTS 1710</td>
<td>Graphic Design I</td>
<td>3</td>
<td>This course provides an introduction to the basic principles of graphic design and visual communication. Graphic representation and typographic fundamentals are explored with electronic and traditional media, tools, skills and methodology. A history of graphic communication is presented through example and slide presentation. (Prerequisite: none, although ARTS 1310 is recommended). Studio: 6 hours - Art Studio Fee: $50</td>
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<tr>
<td>ARTS 1720</td>
<td>Graphic Design II</td>
<td>3</td>
<td>This course continues coverage of concepts introduced in Graphic Design I. Focus is on creative image making and typographic development in a variety of visual formats. Projects provide experience with elements of print and/or digital publication design, logo design, poster design and the design of visual systems. (Prerequisite: ARTS 1710 or permission of instructor). Studio: 6 hours - Art Studio Fee: $50</td>
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<tr>
<td>ARTS 1810</td>
<td>Darkroom Photography I</td>
<td>3</td>
<td>This course emphasizes the creative and expressive aspects of form and content of traditional black and white photography using light sensitive materials. Course covers principles of exposure using cameras, film, and paper to make photographic images. Darkroom printing, alternative cameras and processes will also be included. Students provide or borrow a 35 mm SLR film camera with manual exposure controls. Studio: 6 hours - Art Studio Fee: $50</td>
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<tr>
<td>ARTS 1820</td>
<td>Darkroom Photography II</td>
<td>3</td>
<td>Practice and refinement of basic black and white photographic techniques and introduction to advanced material. The history, styles and critical theory of photography are presented. Students create visually and conceptually unified portfolios focusing on presentation, sequencing and multiple images. (Prerequisite: ARTS 1810 or permission of instructor). Studio: 6 hours - Art Studio Fee: $50</td>
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<tr>
<td>ARTS 1840</td>
<td>Digital Art I</td>
<td>3</td>
<td>This course explores creative and technical issues related to computer-based image making as an effective means of artistic expression. While students apply the fundamentals using the latest industry-standard digital photo editing software, they also acquire both the manual and conceptual skills associated with creativity in the digital realm. Projects provide experience with image manipulation, montage, color corrections, retouching, and layout and design of individual artist's projects. Studio: 6 hours - Art Studio Fee: $50</td>
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<tr>
<td>ARTS 1845</td>
<td>Video Art</td>
<td>3</td>
<td>This course is an introduction to the use of video as a form of artistic expression and visual communication. Students learn about structure, form, rhythm and pace. Emphasis is placed on image and sound manipulation, editing and theory, as they relate to capturing video and audio, and finalizing content for DVD or web. Complete and short form projects are produced that explore the relationship of subject, form and content in the creation of meaning. Works by video artists are viewed and discussed. Studio: 6 hours - Art Studio Fee: $50</td>
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ARTS 1850 - Digital Photography I
(3 Credits)
This course is an introduction to the technique of digital photography and its use as a form of artistic expression and visual communication. Course covers principles of image creation using digital cameras, image correction and manipulation with industry standard software, and inkjet printers to make photographic prints. Students provide or borrow a digital camera, which must have manual, program, aperture and shutter priority exposure modes. Studio: 6 hours - Art Studio Fee: $50

ARTS 2010 - Painting I
(3 Credits)
This course offers an introduction to the painting process through an investigation of theories, materials and techniques. Historical and contemporary aesthetic issues are explored through studio assignments, slide lectures, discussions, critiques, and museum and gallery visits. (Prerequisite: ARTS 1010 or ARTS 1020). Studio: 6 hours - Art Studio Fee: $50

ARTS 2020 - Painting II
(3 Credits)
A continuation of Painting I, this course encourages further development of personal artistic expression with emphasis on aesthetic and critical theory. Lectures, discussions, studio assignments, critiques, and museum and gallery visits are included. (Prerequisite: ARTS 2010 or permission of instructor). Studio: 6 hours - Art Studio Fee: $50

ARTS 2050 - Drawing III - Life Drawing
(3 Credits)
A continuation of Drawing II, this course emphasizes excellence in drawing, design and color in exploring relationships between the human figure and the environment. Studio: 6 hours - Art Studio Fee: $50

ARTS 2130 - Art Studio Seminar
(3 Credits)
This seminar course is for any student who wants to do advanced work in any studio area. The most advanced course offered by that particular studio area must have been successfully completed or taken concurrently. Seminar work involves independent Projects and research done under the guidance of an Art Department faculty advisor. Before signing up for Seminar, students must choose a faculty advisor and submit to them a proposed program of study for approval. Studio Seminar may be elected for one to three credits. Lecture/Studio: 6 hours.

ARTS 2360 - Printmaking II
(3 Credits)
A continuation of the material covered in Introduction to Printmaking, this course allows students to further their skills in printmaking media. Students will learn to use color processes, the registration of unique and multiple impressions, and the integration of digital or photo-sensitive plates. This course will encourage students to explore both traditional and alternate approaches to create printed images that reflect their individual interests. (Prerequisite: ARTS 1030 or ARTS 1035, or permission of instructor) Studio: 6 hours - Art Studio Fee: $50

ARTS 2660 - Ceramics III
(3 Credits)
Students are required to develop a proposal for a project(s) they will develop and create by the conclusion of the semester. Exploration of alternate construction methods other than those covered in Ceramics I and II are encouraged as well as an investigation into a personal artistic voice in clay. Kiln and basic glazes are provided; clay and tools must be purchased. (Prerequisite: ARTS 1660 or permission of instructor). Studio: 6 hours - Art Studio Fee: $50

ARTS 2820 - Photography Portfolio
(3 Credits)
A continuation of Darkroom Photography II, this course requires students to create a visually and thematically cohesive portfolio of exhibition quality photographs. Through research on photographic history, artists and styles, students identify influences and acquire historical perspective. (Prerequisite: ARTS 1820 or 2850 or permission of instructor). Studio: 6 hours - Art Studio Fee: $50

ARTS 2840 - Visual Web Design
(3 Credits)
The focus of this course is design of a visual experience for the World Wide Web and the making of Net Art. Students will develop interactive web publications and original web art experiences using the latest industry-standard imaging and graphical interface-based software. Students will learn to
successfully address multiple design issues related to web development such as organizational concepts, navigation design, image manipulation, and typographic application. The course focuses on developing a sequence of coded art with increasingly sophisticated web pages using creative links, text, images and multimedia segments. (Prerequisite: ARTS 1840 or permission of instructor). Studio: 6 hours - Art Studio Fee: $50

ARTS 2850 - Digital Photography II  
(3 Credits)  
This course continues skill development in digital camera operation and image editing with the introduction of advanced techniques, including crafting inkjet prints. Students are encouraged to develop a personal, expressive style in addition to mastering a range of photographic techniques while they create a visually and conceptually cohesive, exhibition quality portfolio. DSLR or equivalent camera required. (Prerequisite: Undergraduate level ARTS 1850 Minimum Grade of D). Studio: 6 hours - Art Studio Fee: $50

ASLG (American Sign Language)

Course Completes the LANG: Foreign Language Requirement.

ASLG 1010 - American Sign Language I  
(3 Credits)  
This is a beginner's course in the sign language of the deaf in the United States. The course equips students with skills that enable communication in American Sign Language, both expressively and receptively. Topics relevant to the use of sign language include: the role of signs in American education of the deaf, the oral vs. manual controversy, the philosophy of total communication and standards and ethics of sign language interpreting. Students are expected to attain competency with 600 common signs and to adhere to acceptable standards in utilizing this skill. *Elective for Liberal Arts. Note: Grade of C or better required for Human Services program students. Lecture: 3 hours

ASLG 1020 - American Sign Language II  
(3 Credits)  
This is an intermediate level course in the sign language of the deaf in the United States. This course concentrates on improving skills acquired in American Sign Language and focusing on effective conversational skills, both expressive and receptive. Students are expected to attain competency with 600 signs and a working knowledge of American Sign Language. Elective for Liberal Arts program. (Prerequisite: ASLG 1010) Note: Grade of C or better required for Human Services program students. Lecture: 3 hours

ASLG 2010 - American Sign Language III  
(3 Credits)  
This is an intermediate level sign language course that emphasizes further development of expressive and receptive skills appropriate for a broad range of conversational situations. Grammatical functions are stressed along with a more in-depth study of deaf history, deaf culture, linguistics and the use of classifiers. Note: Grade of C or better required for Human Services program students. (Prerequisite: ASLG 1010, 1020) Lecture: 3 hours

ASLG 2020 - American Sign Language IV  
(3 Credits)  
This course provides the second level of intermediate study in American Sign Language. Expressive and receptive skills are expanded and refined to advance students toward interpreter training in fields beyond human service settings. Proficiency in areas calling for in-depth dialogue with individuals and group members from the deaf community is stressed. Note: Grade of C or better required for Human Services program students. (Prerequisite: ASLG 1010,1020, 2010) Lecture: 3 hours

ASTR (Astronomy)

ASTR 1010 - The Solar System  
(4 Credits)  
Major topics covered in this course are the historical development of astronomical understanding, concepts of the celestial sphere, the technology of astronomical observations, modern planetary science derived from the space program, small bodies of the solar system and the origin and evolution of the solar system. Evening observing sessions are included as an optional part of the course (clear skies permitting). Note: This course fulfills one lab science requirement for the A.A. Degree. Lecture: 3 hours, Lab: 2 hours - Lab Fee: $20

ASTR 1020 - The Stellar System  
(4 Credits)  
This course includes the study of the science of analyzing radiation that reaches Earth from extraterrestrial objects; the sun; stellar properties; the life cycles of stars; systems containing more than one star including clusters and galaxies, extraordinary objects such as neutron stars, pulsars, black
holes and quasars; and the origin and evolution of the universe. Evening observing sessions are included as an optional part of the course (clear skies permitting). Note: This course fulfills one lab science requirement for A.A. Degree. Lecture: 3 hours, Lab: 2 hours - Lab Fee: $20

**BIOL (Biology)**

**BIOL 0600 - Essentials of Anatomy and Physiology**
(1 Credit)
This five-week, modular, online course prepares students for success in Human Anatomy - BIOL 1010 and Human Physiology - BIOL 1020. The focus of this course is development of basic skills required for success in higher education: study skills, time management, basic math and language skills. Students learn the essential science background necessary to be successful in life science courses: basic concepts in Biology (biological terminology, cellular structure) and basic concepts in Chemistry (ions, chemical bonding, terminology and chemical notation). Lecture: 3 hours

**BIOL 1000 - Cell Biology for Technology**
(4 Credits)
This biology course is designed to introduce basic biological principles while specifically examining life processes at the cellular level. Topics include cell chemistry, the relationship between cell structure and function, metabolism, molecular genetics and cellular communication. Contemporary cell-related technology, as well as its impact and significance, is emphasized. (Prerequisites: ENGL 0890 with a grade of B or better or Accuplacer exemption from Reading AND Students must also demonstrate competency in mathematics through required math placement testing: a Math Accuplacer score equivalent to the successful completion of pre-algebra OR successful completion of any of the following courses or their equivalent: MATH 0101, 1200, 1025, 1179, 2111, 2141, 2142, 2243 or 2362) Lecture: 3 hours, Lab: 3 hours - Lab Fee: $20

**BIOL 1001 - Introductory Biology: Organismal**
(4 Credits)
This course is one part of a two-semester introduction to the fundamentals of biology intended for science majors. However, BIOL 1001 may be taken independently of BIOL 1002. The course investigates the diversity in form and function of the major groups of organisms through the presentation and discussion of biological processes and systems including anatomy, physiology, genetics, evolution, and ecology. (Prerequisites: ENGL 0890 with a grade of B or better or Accuplacer exemption from Reading AND MATH 0099 with a grade of C or appropriate placement test score) Lecture: 3 hours, Lab: 2 hours - Lab Fee: $20

**BIOL 1002 - Introductory Biology: Cellular**
(4 Credits)
This course is one part of a two-semester introduction to the fundamentals of biology intended for science majors. It may be taken independently of BIOL 1001. The course investigates biology at the cellular level through the presentation of such topics as: the chemistry of the cell, the structure and function of macromolecules and organelles, energy and cell metabolism, photosynthesis, genetics, cell reproduction and differentiation, DNA structure and synthesis, and gene expression. (Prerequisites: ENGL 0890 with a grade of B or better or Accuplacer exemption from Reading AND MATH 0099 with a grade of C or appropriate placement test score) Lecture: 3 hours, Lab: 2 hours - Lab Fee: $20

**BIOL 1005 - Biology in the Modern World**
(4 Credits)
This course investigates the basic biological principals needed to understand and make informed decision regarding vital biological issues in today's world; for example, global warming, obesity, biodiversity, cancer, race, genetic engineering, and human population growth. Note: This course is designed for non-science majors; not open to science majors. This class fulfills four credits of Math/Science General Education requirements. (Prerequisites: ENGL 0700 and MATH 0099 with grade of C or appropriate placement test score.) Lecture: 3 hours, Lab: 2 hours

**BIOL 1007 - Explorations in Biology**
(4 Credits)
Targeted towards Non-Science majors, the course introduces students to core biological concepts and themes including: microorganisms, anatomy and physiology, cellular organization, evolution, and ecology. Using a broad, topical approach, students will gain a greater appreciation of the diversity in form and function of organisms. Linking lectures will tie major concepts together and enable students to apply this knowledge in a practical manner in regards to their health and the environment. Critical thinking in learning and application of principles acquired will be an integral part of this course. (Prerequisites: ENGL 0890 with grade of “C” or better or ACCUPLACER exemption from reading and MATH 0099 with grade of C or appropriate placement test score) Lecture: 3 hours, Lab: 2 hours
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
<th>Prerequisites</th>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Lab Fee</th>
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<tbody>
<tr>
<td>BIOL 1010</td>
<td>Human Anatomy</td>
<td>4</td>
<td>This course is a study of the human organism with respect to the gross and microscopic anatomy of the organ systems. Laboratory work includes dissection of the cat and appropriate isolated organs. (Prerequisites: ENGL 0890 with a grade of B or better or Accuplacer exemption from Reading AND MATH 0099 with a grade of C or appropriate test score. Recommended: take BIOL 1002 before taking BIOL 1010.) Lecture: 3 hours, Lab: 3 hours - Lab Fee: $20</td>
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<tr>
<td>BIOL 1020</td>
<td>Human Physiology</td>
<td>4</td>
<td>This course presents a study of the human organism, including basic chemical composition and function of the cell. The course stresses homeostatic control systems and coordinated body functions. (Prerequisite: BIOL 1010) Lecture: 3 hours, Lab: 3 hours - Lab Fee: $20</td>
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<td>$20</td>
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<tr>
<td>BIOL 1050</td>
<td>Humans and the Environment</td>
<td>3</td>
<td>A study of our relation to the ecosystem, this course focuses on environmental issues such as energy supplies, energy alternatives, forms of pollution, food production, population growth and resources management. (Prerequisite: ENGL 0700 with grade of C or appropriate placement test score) Lecture: 3 hours</td>
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<tr>
<td>BIOL 1070</td>
<td>Human Anatomy and Physiology</td>
<td>3</td>
<td>This course introduces students to the basic principles of anatomy and physiology necessary for a general understanding of the human body. The relationship between structure and function is emphasized. (Prerequisite: ENGL 0700 and MATH 0099 with grade of C or appropriate placement test score) Lecture: 3 hours</td>
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<tr>
<td>BIOL 1080</td>
<td>Introduction to Clinical Procedures</td>
<td>3</td>
<td>Lectures provide an understanding of the theoretical basis and physiological implications of clinical procedures in the medical office and prepare students for further professional training. Laboratory experiences in vital signs, asepsis, sterilization, blood studies and urine studies supplement the lecture material. (Prerequisites: BIOL 1070 and ENGL 0700 with grade of C or appropriate placement test score and enrollment in the Medical Secretary/Assistant program). Lecture: 2 hours, Lab: 2 hours - Lab Fee: $20</td>
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<td>$20</td>
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<tr>
<td>BIOL 1110</td>
<td>Introduction to Pharmacology</td>
<td>1</td>
<td>This course provides an introduction to basic pharmacology, terminology and mechanism of drug action. Use, adverse response, special cautions and interactions of drugs commonly used in dental and medical practices are emphasized. (Prerequisites: BIOL 1070 OR 1020 and ENGL 0700 with grade of C or appropriate placement test score and enrollment in Dental Assistant program, Medical Transcription or Medical Secretary/Assistant program) Lecture: 1 hour</td>
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<td></td>
<td></td>
<td>$20</td>
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<tr>
<td>BIOL 1200</td>
<td>The Human in Health &amp; Disease</td>
<td>3</td>
<td>This course is designed to teach people more about themselves. Topics include cancers, birth defects, birth control organ transplants, cloning, infectious diseases, heart disease and diets. (Prerequisites: ENGL 0700 AND MATH 0099 with grade of C or appropriate placement test score) Lecture: 3 hours</td>
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<tr>
<td>BIOL 1300</td>
<td>Orientation to Biotechnology</td>
<td>1</td>
<td>This course provides an overview of the history and fundamental principles necessary to understand the role of biotechnology in our society. Specific topics are selected to provide examples of applications, ethical considerations and career paths in the field of biotechnology. Students are also introduced to the pathway leading from research and development, to production of a biopharmaceutical product, including the regulatory considerations that are involved. (Prerequisites: ENGL 0890 with grade of ‘B’ or better or ACCUPLACER exemption from reading and MATH 0099 with grade of C or appropriate placement test score) Lecture: 1 hour</td>
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BIOL 1310 - Introduction to Biotechnology Laboratory Skills  
(3 Credits)  
This course provides an opportunity for students to learn laboratory skills that are fundamental to successful, efficient and safe practices in a biotechnology research, quality control or production laboratory setting. Students are introduced to methods of measurement, data collection and analysis, solution and media preparation, safe laboratory practices and the practical application of mathematics to these processes. In addition, students are introduced to Good Laboratory Practices (GLP), Good Manufacturing Practices (GMP) and related topics that emphasize the significance of maintaining quality in a biological research or production setting. (Prerequisites: MATH 0101 AND CHEM 1030 OR CHMT 1120, CHMT 1121 OR CHMT 8000 OR equivalent OR permission of instructor. Required reading level: Completion of ENGL 0890 with grade of B or better or Accuplacer exemption from reading) Lecture: 1 hour, Lab: 3 hours - Lab Fee: $20

BIOL 2040 - Human Sexuality  
(3 Credits)  
This course offers an exploration of the physiological, psychological and cultural aspects of human sexuality. Topics include reproductive health, forms and evolution of sexual expression, psychosexual development and the role of sex in the individual's life as well as in society. (Prerequisite: ENGL 0700 with grade of C or appropriate placement test score) Lecture: 3 hours

BIOL 2090 - Genetics  
(3 Credits)  
This course covers basic concepts of inheritance, variation and evolution in plants and animals, including a survey of Mendelian, molecular, cellular and population genetics. (Prerequisite: MATH 1200 or 1179 AND ENGL 0890 with a grade of B or better or Accuplacer exemption from Reading) Lecture: 3 hours

BIOL 2150 - Laboratory in Genetics  
(2 Credits)  
Selected aspects of genetics are demonstrated using bacteria, fungi, fruit flies and other organisms. Each student must design, carry out and present the result of a project. (Prerequisites: One year of biology and concurrent registration in BIOL 2090 and Appropriate Math placement test score AND ENGL 0700 with grade of C or appropriate placement test score) Lab: 4 hours

BIOL 2201 - Human Anatomy & Physiology I  
(4 Credits)  
Human anatomy and physiology of the human body is taught in a two semester sequence, using a systems approach. The relationship between form and function is emphasized, both microscopically and gross, at each level of organization. This course provides basic anatomical terminology and homeostatic concepts beginning at the molecular level of organization and progressing through cell biology, histology, the integument, and skeletal, muscular and nervous systems. Prerequisites: (1) ENGL 0890 with grade of B or better or Accuplacer exemption from reading, (2) MATH 0099 with grade of C or appropriate test score. BIOL 1002 strongly recommended. Lecture: 3 hours, Lab: 3 hours

BIOL 2202 - Human Anatomy & Physiology II  
(4 Credits)  
This course continues basic anatomical and homeostatic concepts beginning with the endocrine system, progressing though the cardiovascular and lymphatic systems, including immunity, the respiratory system, the digestive system and metabolism, the urinary system including acid/base and fluid/electrolyte balance, and reproductive systems. Prerequisite: BIOL 2201 with a grade of C or better. Lecture: 3 hours, Lab: 3 hours

BIOL 2210 - Introductory Microbiology  
(4 Credits)  
This course involves the study of microorganisms that cause diseases in humans. Topics included are prokaryotic and eukaryotic cell types, growth, control of growth, microbial metabolism, genetics, immunology and microorganisms of medical importance. (Prerequisites: BIOL 1010 and 1020) Lecture: 3 hours, Lab: 3 hours - Lab Fee: $20

BIOL 2220 - Introduction to Pathophysiology  
(3 Credits)  
The course begins by examining the disease process in general, from the etiology of disease at the cellular level to the physiologic changes that occur as the disease moves from incipient stage to full expression. The second half of the course examines the pathogenesis of specific diseases system by system. (Prerequisites: BIOL 1010 and 1020) Lecture: 3 hours
BIOL 2480 - General Microbiology  
(4 Credits)  
This course offers a look at microbes and particularly bacteria from a biochemical and molecular perspective. Emphasis is placed on microbial physiology and genetics with applications to biotechnology. (Prerequisites: One year of chemistry and one semester of biology AND ENGL 0700 AND MATH 0101 with grade of C or appropriate placement test score. Biotechnology Certificate program students can fulfill the prerequisites with CHMT 1121, BIOL 1000 and permission of instructor) Lecture: 2 hours, Lab: 4 hours - Lab Fee: $20

BIOL 2500 - Applications in Science and Math  
(1 Credit)  
This capstone course is intended for students in their final semester of the AS in Science program. It will allow students an opportunity to demonstrate an integration of knowledge and abilities acquired in previous science and mathematics courses with the added intent of having students develop new insights. Students will read selected articles, such as those that come from scientific journals, in a variety of fields and then have the opportunity to collaborate with their peers and hone writing, synthesis and presentation skills in a seminar setting. (Prerequisite: Successful completion of a minimum of 21 General Education credits and a minimum of 18 Science credits or permission of instructor - SEE DEPARTMENT CHAIRPERSON FOR PERMISSION OVERRIDE) Lecture: 2 hours

BUSN (Business Administration)

BUSN 1000 - Workplace Relationship Skills  
(3 Credits)  
Critical to success in the workplace is the ability to develop and maintain effective working relationships with co-workers, supervisors, subordinates and both internal and external customers. This course guides students in developing interpersonal skills and strategies to manage their work lives. Lecture: 3 hours

BUSN 1010 - Introduction to Business  
(3 Credits)  
This course emphasizes both small and publicly traded businesses along with strategies for competing in modern economic conditions. Topics include: cultivating a business in a diverse global environment, developing and implementing customer-driven strategies, motivating and empowering employees to satisfy customers and financing a small business. This course serves as a prerequisite for several courses in the business curriculum. However, this prerequisite may be waived and credit received by examination or submission of a portfolio. Contact the department for details. Lecture: 3 hours

BUSN 1040 - Personal Finance  
(3 Credits)  
This course helps individuals manage their money and property. Financial planning, budgeting, consumer protection, consumer credit, investing, housing and insurance are discussed. Lecture: 3 hours

BUSN 1050 - Small Business Administration  
(3 Credits)  
This course covers the practical considerations involved in starting and operating a small business. Topics include what business to enter, success factors, financing, location, franchising, managing, record-keeping and small business computers. Lecture: 3 hours

BUSN 1060 - Leadership Development  
(3 Credits)  
This course provides emerging and existing leaders the opportunity to explore the concept of leadership and to develop and improve their leadership skills. The course integrates readings from the humanities, experiential exercises, films and contemporary readings on leadership. Lecture: 3 hours

BUSN 1150 - Introduction to International Business  
(3 Credits)  
This course introduces students to the importance and role of international business. Predominant themes include culture and business opportunities. Topics include international trade, balance of payments and multinational companies. Factors and entities that influence trade are considered. (Recommended: BUSN 1010) Lecture: 3 hours
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<tr>
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<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSN 1220</td>
<td>QuickBooks, Computer Application</td>
<td>1</td>
<td>QuickBooks is a widely used computerized accounting package for small businesses. Topics covered include writing checks and paying bills, creating reports, managing accounts receivable and accounts payable, invoicing, managing inventory and preparation of payroll. Concepts are presented through hands-on exercises using a case study approach. Lecture: 2 hours, Lab: 2 hours - Lab Fee: $10</td>
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<tr>
<td>BUSN 2050</td>
<td>Principles of Management</td>
<td>3</td>
<td>This course introduces students to the basic role of the manager in modern business. Among the topics discussed are: paradigm shifts; environmental factors affecting decision-making; ethics/social responsibility; and planning organizing, motivating and controlling organizational resources. (Prerequisite: BUSN 1010. May be waived. See course description for BUSN 1010) Lecture: 3 hours</td>
</tr>
<tr>
<td>BUSN 2060</td>
<td>Principles of Marketing</td>
<td>3</td>
<td>This course offers an introduction to the basic concepts and operations involved in the marketing process. Among the topics covered are the basic marketing functions, identification and selection of target markets (including international), marketing research and technologies, pricing, products, promotion and channels of distribution. (Prerequisite: BUSN 1010. May be waived. See course description for BUSN 1010) Lecture: 3 hours</td>
</tr>
<tr>
<td>BUSN 2061</td>
<td>Marketing Communications</td>
<td>3</td>
<td>This course provides an introduction to the basic promotional tools available to the person interested in marketing a business or service. Topics to be covered include: source credibility, message development, media selection and understanding audiences. Communication with audiences through advertising, public relations and printed materials are explored. Lecture: 3 hours</td>
</tr>
<tr>
<td>BUSN 2063</td>
<td>Sales</td>
<td>3</td>
<td>This course introduces the fundamental skills required for work in a sales position. Topics include: the role and importance of selling, sales processes, personal qualities necessary for salesmanship and basic procedures for seeking a sales position. Lecture: 3 hours</td>
</tr>
<tr>
<td>BUSN 2065</td>
<td>Advertising Principles</td>
<td>3</td>
<td>This survey course deals with the planning, creation and role of advertising in our society. Topics include: advertising strategy development, media planning and the function of ad agencies. All major media are covered. Lecture: 3 hours</td>
</tr>
<tr>
<td>BUSN 2070</td>
<td>Management Strategy</td>
<td>3</td>
<td>This course is the capstone for the Management Concentration and the Management Certificate programs. Integration of key aspects covered in other management, business and communications courses are utilized. Emphasis is on the formulation, application and justification of managerial strategies through the use of cases and simulation. (Prerequisites: ACCT 1010, BUSN 2050, BUSN 2060. Note: ACCT 1020 strongly recommended) Lecture: 3 hours</td>
</tr>
<tr>
<td>BUSN 2100</td>
<td>Entrepreneurship Capstone</td>
<td>3</td>
<td>THIS COURSE IS THE CAPSTONE FOR THE CERTIFICATE IN ENTREPRENEURSHIP AND IS OFFERED IN AN INDEPENDENT STUDY FORMAT. TO ENROLL IN THIS COURSE, CONTACT THE BUSINESS DEPARTMENT CHAIRPERSON FOR DETAILS. &lt;br&gt; Students work with a member of the business faculty in developing a Business Plan, in conjunction with the Rhode Island Business Plan Competition. The completed plan is reviewed by the faculty member who will then determine your final grade. All work is done independently without the benefit of classroom instruction. (Prerequisites: ACCT 1010, BUSN 1010, BUSN 1050.)</td>
</tr>
<tr>
<td>BUSN 2110</td>
<td>Money and Banking</td>
<td>3</td>
<td>This course is an analysis and description of the monetary and banking aspects of our present economic system. Introductory material on money, credit and monetary standards precedes a more intensive study of the nature and functions of commercial banking and the Federal Reserve System. Lecture: 3 hours</td>
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</table>
### BUSN 2120 - Investments

(3 Credits)

This course studies the scope and nature of investment from the viewpoint of the individual investor. The course includes discussions of investment objectives, types of securities, mechanics of investing, security market procedures, sources of information, security analysis and forecasting techniques. Lecture: 3 hours

### BUSN 2160 - Management and Labor Relations

(3 Credits)

This course is the study of the evolution of the labor relations concept in the public and private sectors. Emphasis is placed on techniques that have resulted in sound management-labor relations policies. (Lecture: 3 hours)

### BUSN 2350 - Human Resources Management

(3 Credits)

This course introduces the functions and management of human resources in the development of an effective work force. Topics include job descriptions, recruitment and hiring procedures, training, performance evaluation methods, motivation, incentive compensation, the grievance procedure, application of affirmative-action legislation and implementation of health and safety programs. (Prerequisites: BUSN 1010, 2050) Lecture: 3 hours

### CHEM (Chemistry)

#### CHEM 1000 - Chemistry of Our Environment

(4 Credits)

This course is an introductory, entry-level course in chemistry for non-science majors, with emphasis on daily, practical applications. The course covers basic chemistry principles, which are then applied to contemporary issues. Use of mathematics is minimized as much as possible. The laboratory assignments demonstrate topics discussed in class. Note: This course is a prerequisite for CHEM-1060 and is recommended as a science elective in the Liberal Arts or General Studies program. (Prerequisite: MATH 0101 or higher with grade of C or ACCUPLACER testing out of MATH 0101) Lecture: 3 hours, Lab: 3 hours - Lab Fee: $20

#### CHEM 1010 - Survey of Biomedical Chemistry

(5 Credits)

This is an introductory study of chemistry principles that form the foundation for understanding biomedical and dental sciences. Content includes atomic theory, chemical bonding, the nature and properties of matter and solutions, the colloidal state, crystallization and the chemical functioning of basic biological compounds. Laboratory exercises demonstrate concepts presented in lectures. (Prerequisite: MATH 0101 or higher with grade of C or better or ACCUPLACER testing out of MATH 0101 and Chemistry placement exam or CHEM 1020 with grade of C or better.) Lecture: 3 hours, Lab: 3 hours, Recitation: 1 hour - Lab Fee: $20

#### CHEM 1020 - Basic Skills for Chemistry

(3 Credits)

This course is for students who are inadequately prepared to enter General Chemistry, Health Science Chemistry or Survey of Biomedical Chemistry. Topics stressed are physical measurements, problem-solving and chemical language. Students are given first-hand experience in data gathering, evaluation and presentation. Note: Not open to students who have already completed CHEM 1010, 1030 or 1180 without permission of department chairperson. (Prerequisite: MATH 0101 or higher with grade of C or better or ACCUPLACER testing out of MATH 0101 and Chemistry placement exam) Lab/Recitation: 4 hours - Lab Fee: $20

#### CHEM 1030 - General Chemistry I

(5 Credits)

Principles of chemistry dealing with the structure of matter, periodic system, chemical bonding, formulas and equations are studied in this course. Laboratory work provides an opportunity to see the applications of these chemical principles. Note: This course is for students who plan to pursue further studies in science, pharmacy or engineering. (Prerequisite: MATH 0101 or higher with grade of C or better or ACCUPLACER testing out of MATH 0101 and Chemistry placement exam or CHEM 1020 with grade of C or better) Lecture: 3 hours, Lab: 3 hours, Recitation: 1 hour - Lab Fee: $20
CHEM 1060 - Chemistry of Hazardous Materials  
(3 Credits)  
This course provides an insight into hazardous liquids, solids and gases. Students are exposed to basic chemistry, storage, handling laws, standards and firefighting practices pertaining to hazardous liquids, solids and gases. (Prerequisites: CHEM 1000). Lecture: 3 hours

CHEM 1100 - General Chemistry II  
(5 Credits)  
This course, together with CHEM 1030 satisfies the requirement for one year of science. Lectures are concerned with rates of reactions, equilibria, thermodynamics, electrochemistry, nuclear chemistry and complexation reactions. Laboratory involves further application of chemical principles and the separation and identification of inorganic ions. (Prerequisite: CHEM 1030 with a grade of C or better) Lecture: 3 hours, Recitation: 1 hour, Lab: 3 hours - Lab Fee: $20

CHEM 2250 - Organic Chemistry I Lecture  
(3 Credits)  
This course deals with chemical principles involved in organic reactions. Emphasis is placed on compounds in the aliphatic series. (Prerequisites: Enrollment in ENGN/ENBC or ENGN/ENCH programs and CHEM 1100 with a grade of C or better). Lecture: 3 hours

CHEM 2260 - Organic Chemistry II Lecture  
(3 Credits)  
A continuation of CHEM 2250, this course emphasizes the aromatic series of organic compounds and synthetic organic chemistry. (Prerequisite: Enrollment in ENGN/ENCH programs and CHEM 2250 with a grade of C or better) Lecture: 3 hours

CHEM 2270 - Organic Chemistry I  
(5 Credits)  
This course deals with the chemical principles involved in organic reactions. Emphasis is placed on compounds in the aliphatic series. The laboratory enhances lecture material by illustrating methods of preparation, purification and characterization of organic compounds using accepted techniques. (Prerequisite: CHEM 1100 with a grade of C or better) Lecture: 3 hours, Lab: 3 hours, Recitation: 1 hour

CHEM 2280 - Organic Chemistry II  
(5 Credits)  
A continuation of CHEM 2270, this course emphasizes the aromatic series of organic compounds and synthetic organic chemistry. The laboratory enhances lecture material by illustrating methods of preparation, purification and characterization of organic compounds using accepted techniques. (Prerequisite: CHEM 2270) Lecture: 3 hours, Lab: 3 hours, Recitation: 1 hour

CHEM 2500 - Applications in Science and Math  
(1 Credit)  
This capstone course is intended for students in their final semester of the Science program. It will allow students an opportunity to demonstrate an integration of knowledge and abilities acquired in previous science and mathematics courses with the added intent of having students develop new insights. Students will read selected articles, such as those that come from scientific journals, in a variety of fields and then have the opportunity to collaborate with their peers and hone writing, synthesis and presentation skills in a seminar setting. (Prerequisite: Successful completion of a minimum of 21 General Education credits and a minimum of 18 Science credits or permission of instructor - SEE DEPARTMENT CHAIRPERSON FOR PERMISSION OVERRIDE) Lecture: 2 hours

CHIN (Chinese)

CHIN 1000 - Basic Spoken Chinese  
(3 Credits)  
This is an introductory elective course for beginners emphasizing correct pronunciation and basic vocabulary for practical use in everyday conversational situations and travel dialogues. Students with no previous study of the language are prepared to use and understand it within a limited context and basic structure. Lecture: 3 hours

CHIN 1030 - Elementary Chinese I  
(3 Credits)  
This elementary Chinese language course provides beginning students with basic Mandarin language skills. Students will learn both the language and culture nuances through different contexts. By the end of the semester, students will be able to comprehend and engage in simple daily conversations,
accurately pronounce Chinese characters with the help of Han Yu Pin Yin (the Chinese pronunciation system), recognize nearly 200 Chinese characters, and understand the basic Chinese writing system. (Lecture: 3 hours)

CHIN 1040 - Elementary Chinese II
(3 Credits)
Elementary Chinese II is a follow-up course to Elementary Chinese I. This course will provide further comprehensive training in the four basic language skills: listening, speaking, reading, and writing through different contexts. Students will also have the opportunity to further expand their vocabulary (up to 500 basic characters) and learn more appropriate Chinese grammar and sentence structures to comprehend and engage in daily conversations. The aim of this course is to continue to build a solid foundation for those who would like to learn Chinese at a higher level. (Lecture: 3 hours)

CHMT (Chemical Technology)

CHMT 1120 - Chemical Technology I
(6 Credits)
This course is an introduction to basic concepts in chemistry. The course covers chemical properties, identification and separation of substances, atomic and molecular structure, elements and compounds, liquids and solutions; the periodic table and the naming of inorganic substances. Students will use a variety of instruments including the gas chromatograph, manometers, analytical balances and visible spectrophotometers. Lecture: 2 hours, Lab: 8 hours - Lab Fee: $20

CHMT 1121 - Chemistry for Biotechnology
(3 Credits)
This course provides an introduction to basic concepts in chemistry and instruction in the use of instruments, including gas and liquid chromatographs, electronic balance, visible spectrophotometers and pH meters. Topics covered include chemical properties, identification and separation of substances, atomic structure, elements and compounds, gases and solutions, acids and bases and amino acids and proteins. Lecture: 2 hours, Lab: 3 hours - Lab Fee: $20

CHMT 1220 - Chemical Technology II
(6 Credits)
This course is a continuation of Chemical Technology I and covers acid-base chemistry, equilibrium, qualitative and quantitative analysis. (Prerequisite: CHMT 1120 or its equivalent) Lecture: 2 hours, Lab: 8 hours - Lab Fee: $20

CHMT 2320 - Chemical Technology III
(10 Credits)
This course is a continuation of Chemical Technology II and covers an introduction to organic chemistry via a study of organic functional groups, classification of organic compounds using wet and instrumental methods and organic reactions. It will also focus on infrared spectrophotometry separation methods, including gas chromatography and high pressure liquid chromatography (Prerequisite: CHMT 1220 or its equivalent) Lecture: 4 hours, Lab: 12 hours - Lab Fee: $20

CHMT 2420 - Chemical Technology IV
(8 Credits)
This course is a continuation of Chemical Technology III and covers the nature of reversible processes, equilibrium constants, solute and solvent systems and the kinetics of chemical reactions. Instrumental methods used include atomic absorption, emission spectroscopy, ultraviolet and NMR spectroscopy. The course concludes with a variety of special methods and student projects. (Prerequisite: CHMT 2320 or its equivalent) Lecture: 4 hours, Lab: 8 hours - Lab Fee: $20

CNVT (CMP Networking Virtual Tech)

CNVT 1000 - Computer Repair A+ Hardware
(3 Credits)
This course covers the installation, configuration and troubleshooting of hardware components. The material is presented to prepare the student for the A+ Core Hardware examination. This course may not be used as an elective in the electronics or instrumentation programs. Lecture: 2 hours, Lab: 2 hours - Lab Fee: $20
CNVT 1010 - Computer Repair A+ Software  
(3 Credits)  
This course covers installation, configuration and troubleshooting of software/operating system components. The material is presented to prepare the student for the A+ OS Technologies examination. Lecture: 2 hours, Lab: 2 hours - Lab Fee: $20

CNVT 1200 - Introduction to Wireless  
(3 Credits)  
This course introduces wireless networking over a range of applications, from cell phones to wireless local area networks (WLAN), to broadband wide area network links and satellite. Topics covered include an overview of wireless communication technology, protocol layers, local area network (LAN) hardware, IP addressing, 802.11 standards, MA (Media Access Control) standards, WLAN components, basic security, basic RF theory, antennas and troubleshooting. The student will have hands-on experience with various LAN and WLAN networking components, applications, tools and projects. (Prerequisite: CNVT 1000 or permission of department) Lecture: 2 hours, Lab: 2 hours - Lab Fee: $20

CNVT 1810 - Networking Technology  
(3 Credits)  
This course provides students with a thorough understanding of how basic networking components work in a practical hands-on environment utilizing state-of-the-art telecommunications equipment. Lecture: 2 hours, Lab: 2 hours - Lab Fee: $20

CNVT 1820 - Intermediate Networking  
(3 Credits)  
This course focuses on networking terminology and protocols, networking standards, LAN, WAN, OSI modules, Ethernet, token ring, FDDI, TCP/IP addressing protocol, dynamic routing and the network administrator's role and function. (Prerequisite or corequisite: CNVT 1810) Lecture: 2 hours, Lab: 2 hours - Lab Fee: $20

CNVT 1830 - LAN Design and Management  
(3 Credits)  
This course focuses on advanced networking concepts that enable students to design and implement local area networks and virtual local area networks. (Prerequisite: CNVT 1820) Lecture: 2 hours, Lab: 2 hours - Lab Fee: $20

CNVT 1840 - WAN Design and Management  
(3 Credits)  
This course focuses on advanced networking concepts that enable students to design and implement wide area networks. (Prerequisite or corequisite: CNVT 1830) Lecture: 2 hours, Lab: 2 hours - Lab Fee: $20

CNVT 2010 - Cisco CCNP Route  
(5 Credits)  
Cisco ROUTE covers specialized routing concepts including advanced IP addressing techniques, CIDR, NAT, DHCP, IP helper addresses, dynamic routing, static routing, default routing, single area OSPF, multi-area OSPF, point-to-multipoint OSPF, multi-area OSPF, EIGRP route summarization, route redistribution, route filters, route maps, policy routing, BGP, IPv6 and network security. (Recommended: Successful completion of CCNA exam and Cisco Certified Academy attendance or demonstrated proficiency using laboratory equipment.) Spring only. Lecture: 3 hours, Lab: 5 hours - Lab Fee: $20

CNVT 2030 - Cisco CCNP Switch  
(5 Credits)  
Cisco SWITCH concentrates on advanced concepts of multi-layer switching in a network environment. Topics include switching technologies, LAN Media, Gigabit Ethernet, switch configuration, VLANs, VLAN Trunking Protocol (VTP), Spanning Tree Protocol, multi-layer switching, redundant routing protocols, multicasting, and restricting network access. (Recommended: Successful completion of CCNA exam and Cisco Certified Academy attendance or demonstrated proficiency using laboratory equipment.) Fall only. Lecture: 3 hours, Lab: 5 hours - Lab Fee: $20

CNVT 2060 - CCNP TSHOOT: Cisco IP Network  
(5 Credits)  
This course concentrates on advanced concepts of internetwork troubleshooting. Topics include network maintenance and methodologies, troubleshooting processes, troubleshooting tools, maintaining switched and routed solutions, addressing services, performance issues, and network security implementations. (Prerequisites: CNVT 2010, 2030 or equivalent. Recommended: Successful completion of CCNA exam and Cisco Certified Academy attendance or demonstrated proficiency using laboratory equipment.) Lecture: 3 hours, Lab: 5 hours - Lab Fee: $20
CNVT 2100 - Basic Voice Over Internet Protocol (VoIP)  
(3 Credits)  
This course concentrates on the transmission of voice over the Internet using Internet Protocol (VoIP). Focus is on the transmission of voice over high speed network connections and quality of service issues and solutions associated with this transmission. VoIP technology, signaling standards, network configuration and queuing are addressed. (Prerequisite: CNVT 1830, equivalent experience, or permission of department) Lecture: 2 hours, Lab: 2 hours - Lab Fee: $20

CNVT 2200 - Network Security Hardware  
(4 Credits)  
This course concentrates on network security procedures and practices as they apply to routed networks. Security threats and their management; intrusion detection; securing networks through hardware devices; Authentication, Authorization and Accounting (AAA); firewall technologies; cryptographic systems and virtual private networks (VPNs) are included. (Prerequisite: CNVT 1840, equivalent experience, or permission of department. Recommended: Successful completion of CCENT exam and Cisco Certified Academy attendance or demonstrated proficiency using laboratory equipment.) Lecture: 3 hours, Lab: 3 hours - Lab Fee: $20

CNVT 2300 - Desktop Technician-Consumer  
(3 Credits)  
In this course, students learn how to install and support users running the Microsoft Windows operating system. Topics include installing operating systems and service packs, managing access to files and folders, configuring hardware devices and drivers, setting up network protocols, configuring security options and troubleshooting associated problems. Lecture: 2 hours, Lab: 2 hours - Lab Fee: $20

CNVT 2310 - Desktop Technician-Business  
(3 Credits)  
In this course, students learn how to install and support desktop applications running under the Microsoft Windows operating system. Applications include the complete Office Suite, Outlook and Internet Explorer. Students learn how to set up standard and custom configurations for these applications. They also learn how to manage security issues and respond to breaches. Troubleshooting problems associated with these applications, including connectivity issues, also are explored. Lecture: 2 hours, Lab: 2 hours - Lab Fee: $20

COMI (Computer Studies & Info. Proc.)  

COMI 1000 - Computer Basics  
(1 Credit)  
This course is designed for students with no familiarity with computers. It covers topics such as working with Windows and the Windows desktop, file handling, email and the Internet (browsing and searching). Lab: 4 hours - Lab Fee: $10

COMI 1100 - Introduction to Computers  
(3 Credits)  
This computer literacy course provides a comprehensive introduction to the principles of computers and information processing. Students are introduced to the operation and terminology of computer systems as well as certain selected application software packages such as word processing, spreadsheets and presentation software. Note: Lecture and lab hours vary by instructor but total four hours per week. - Lab Fee: $20

COMI 1150 - Programming Concepts  
(3 Credits)  
This course introduces important concepts and skills necessary for computer programming. Emphasis is on structured programming techniques and top-down design. Lecture: 3 hours, Lab: 1 hour - Lab Fee: $20

COMI 1215 - Programming in C++  
(3 Credits)  
This is a comprehensive course in programming in C++. Topics include types, operators, expressions, control flow, functions, arrays, pointers, and file handling. (Recommended: COMI 1150) Lecture: 3 hours, Lab: 1 hour - Lab Fee: $20
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>COMI 1225</td>
<td>Programming in C#</td>
<td>3</td>
<td>This course covers the fundamentals of software development using Microsoft’s Visual Studio C# object-orientated programming language. Data Structures, Methods, Classes, Decision Making, Iteration and Arrays are covered.  (Recommended prerequisite: COMI 1150)</td>
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<tr>
<td>COMI 1240</td>
<td>Object-Oriented Programming</td>
<td>3</td>
<td>This course introduces students to the fundamentals of designing and coding object-oriented programs. Basic topics such as objects, classes and class inheritance are discussed. Students write programs using one of the object-oriented languages.  (Recommended: COMI 1150)</td>
<td>3</td>
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<tr>
<td>COMI 1260</td>
<td>Introduction to SQL</td>
<td>3</td>
<td>This course offers a foundation in the fundamentals of fourth generation language programming. Particular attention is devoted to the use of ANSI-Standard SQL to construct and manipulate database objects. Students create database tables and generate SQL scripts to extract and manipulate data from the database.  (Recommended: COMI 1150)</td>
<td>3</td>
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<tr>
<td>COMI 1410</td>
<td>Personal Computer Software</td>
<td>3</td>
<td>This course introduces operational procedures for several standard data management software packages that utilize computer systems. Students construct and manipulate data files to produce clear, concise reports.</td>
<td>2</td>
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<tr>
<td>COMI 1415</td>
<td>Personal Computer Operating System</td>
<td>1</td>
<td>This module familiarizes students with operating system commands for the personal computer. Students are exposed to statements to enhance their computer operation abilities.</td>
<td>2</td>
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<tr>
<td>COMI 1420</td>
<td>Introduction to Spreadsheets</td>
<td>1</td>
<td>The purpose of this module is to introduce the operational procedures for a spreadsheet software package. Students construct and manipulate data files to produce clear and concise reports.</td>
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<tr>
<td>COMI 1422</td>
<td>Intermediate Spreadsheets</td>
<td>1</td>
<td>This module presents topics and functions, advanced database techniques and additional add-in topics. It focuses on conceptual features beyond the scope of beginning spreadsheet uses. Topics include utilizing additional spreadsheet features and macro planning and development.  (Recommended: COMI 1420)</td>
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<tr>
<td>COMI 1425</td>
<td>Advanced Spreadsheets</td>
<td>1</td>
<td>This module covers advanced topics using integrated spreadsheet software including macros, application design and menu building.  (Recommended: COMI 1422)</td>
<td>2</td>
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<tr>
<td>COMI 1430</td>
<td>Introduction to Database Software</td>
<td>1</td>
<td>This module introduces students to different methods of organizing and accessing computer files. Fundamentals of database design and management are covered.</td>
<td>2</td>
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<tr>
<td>COMI 1432</td>
<td>Intermediate Database Software</td>
<td>1</td>
<td>This module focuses on the creation and manipulation of data files to produce meaningful output using database software. Emphasis is on the presentation of queries, forms and reports.  (Recommended: COMI 1430)</td>
<td>2</td>
<td>2</td>
<td>$10</td>
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**COMI 1440 - Presentation Software (PowerPoint)**
(1 Credit)
This module focuses on the use of computer software that incorporates presentation as well as analytical graphics. Students create informative report documents and visual presentations using charts, graphs and/or pictures. Lecture: 2 hours, Lab: 2 hours - Lab Fee: $10

**COMI 1450 - WINDOWS Operating System**
(3 Credits)
This course familiarizes students with the Windows operating system. Basic and advanced features of Windows are demonstrated. Students explore topics in system diagnostics and troubleshooting, networking, configuration, customization, and commonly used software tools as well as learning about new developments in Windows. Lecture: 3 hours, Lab: 1 hour - Lab Fee: $20

**COMI 1451 - Introduction to WINDOWS**
(1 Credit)
This module familiarizes students with the graphical-user operating environment. Basic functions of Windows are demonstrated. Students do laboratory assignments to utilize the basic operating functions of Windows such as file handling, fonts, graphics, icons and screen control. Lecture: 3 hours, Lab: 1 hour - Lab Fee: $10

**COMI 1460 - Unix Operating System**
(3 Credits)
This course covers basic command structures and syntax of the UNIX operating system and includes file and directory manipulation and shell scripts. Essential system administration topics and system administration shell scripts also are discussed as well as system startup/shutdown, account management and system backup of the UNIX operating system. This class covers advanced system administration topics including networking, security, printing systems and graphical-user interface of the UNIX operating system. Lecture: 3 hours, Lab: 1 hour - Lab Fee: $20

**COMI 1461 - Introduction to UNIX**
(1 Credit)
This module exposes students to the basic command structures and syntax of the UNIX operating system. Content includes file and directory manipulation as well as use of shell scripts. Lecture: 3 hours, Lab: 1 hour - Lab Fee: $10

**COMI 1470 - Windows Programming Using C++**
(3 Credits)
This course focuses on using C++ to design programs that run under the Windows operating system. It includes an overview of object-oriented concepts, creating Windows applications, capturing the mouse and keyboard, creating menus, dialog boxes and toolbars and single and multiple document interfaces. (Recommended: COMI 1150 and 1215) Lecture: 3 hours, Lab: 1 hour - Lab Fee: $20

**COMI 1475 - Introduction to VISIO**
(1 Credit)
This module introduces basic Visio tools. Students create and manipulate drawings and shapes, including flow charts, diagrams and organizational charts. Lecture: 3 hours, Lab: 1 hour - Lab Fee: $10

**COMI 1510 - Java Programming**
(3 Credits)
This course introduces students to topics in programming and software design using the Java programming language. Specific topics reflect current technologies and might include an introduction to object-oriented program design, data analysis, and search and sort algorithms. (Recommended: COMI 1150 and one other programming language course) Lecture: 3 hours, Lab: 1 hour - Lab Fee: $20

**COMI 1640 - Introduction to Word Processing**
(1 Credit)
This module introduces introductory word processing features such as creating, printing and editing a document. This course covers formatting documents including text and paragraphs. Students use spelling, grammar and auto-correct features and are introduced to headers, footers and tables in basic word processing documents. Lecture: 3 hours, Lab: 1 hour - Lab Fee: $10
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<tr>
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<th>Description</th>
<th>Lecture: Lab: Fee:</th>
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<tbody>
<tr>
<td>COMI 1750</td>
<td>HTML (5)</td>
<td>3</td>
<td>This course provides an in-depth introduction to HTML 5 and CSS 3 emphasizing conformance to W3C specifications. Students begin by creating simple web pages and progress to include images, hyperlinks, tables, web forms, animations and transitions. A portfolio website will be created, including examples of attempts at cloning existing websites. Lecture: 3 hours, Lab: 1 hour - Lab Fee: $20</td>
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<tr>
<td>COMI 1751</td>
<td>Introduction to HTML</td>
<td>1</td>
<td>This module introduces students to the use of the HTML language and the basic features of HTML scripting. Lecture: 3 hours, Lab: 1 hour - Lab Fee: $10</td>
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<tr>
<td>COMI 1755</td>
<td>Fundamentals XML eXtensible Markup Language</td>
<td>3</td>
<td>This course introduces fundamentals of XML languages to define and validate data, use schemas, transformations, linking, VML, SMIL and CSS. XML files are used with different editing software. Assignments are used to demonstrate XML activity at students’ websites. Lecture: 3 hours, Lab: 1 hour - Lab Fee: $20</td>
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<tr>
<td>COMI 1770</td>
<td>Fundamentals of Website Development</td>
<td>3</td>
<td>This course provides an in-depth introduction to a variety of technologies used in modern web development. Building on a base of HTML 5 and CSS 3, students will explore JavaScript, JQuery and related technologies for building dynamic web sites. Students will also be introduced to server-side scripting and best practices for web hosting. Lecture: 3 hours, Lab: 1 hour - Lab Fee: $20</td>
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<tr>
<td>COMI 1800</td>
<td>Computer Networking Software Linux</td>
<td>3</td>
<td>This course presents the administration of a LINUX network. Topics include installing, using, administering and maintaining a LINUX network. Lecture: 3 hours, Lab: 1 hour - Lab Fee: $20</td>
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<tr>
<td>COMI 1840</td>
<td>Microsoft Windows Server</td>
<td>3</td>
<td>This course presents the terminology and operating principles of Microsoft Windows server software. Students learn how to use, install and maintain Microsoft Windows networking software. Lecture: 3 hours, Lab: 1 hour - Lab Fee: $20</td>
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<tr>
<td>COMI 2010</td>
<td>Client-Side Scripting Languages</td>
<td>3</td>
<td>This course will introduce scripting languages and their use in programming for the World Wide Web with a focus on client-side scripting. It will include fundamental programming topics such as memory concepts, control structures and writing functions. It also will include an introduction to both client-side and server-side scripts. (Recommended prerequisites: COMI 1150 and 1770) Lecture: 3 hours, Lab: 1 hour - Lab Fee: $20</td>
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<tr>
<td>COMI 2015</td>
<td>Introduction to Microsoft Project</td>
<td>1</td>
<td>This module introduces students to project management software, an essential tool used by most information technology environments. Upon completion of this course, students are able to create and analyze projects using Microsoft Project Manager. Lecture: 3 hours, Lab: 1 hour - Lab Fee: $10</td>
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<tr>
<td>COMI 2020</td>
<td>Network Security Software Fundamentals</td>
<td>3</td>
<td>This course introduces students to networking security, a critical knowledge point for technology professionals. This course provides students with introductory concepts and technical skills needed to create and maintain a secure network environment. Lecture: 3 hours, Lab: 1 hour - Lab Fee: $20</td>
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<tr>
<td>COMI 2031</td>
<td>Computer Support: Concepts</td>
<td>3</td>
<td>This course introduces students to basic technical concepts, functions and support systems. Lecture: 2 hours, Lab: 2 hours - Lab Fee: $20</td>
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</table>
COMI 2033 - Computer Support: Tools and Techniques  
(3 Credits)  
This course focuses on software support tools and how to determine which tools are best suited for particular environments as well as methods to assess the success and effectiveness of these tools. (Prerequisite: COMI 2031) Lecture: 2 hours, Lab: 2 hours - Lab Fee: $20

COMI 2035 - Introduction to Computer Forensics  
(3 Credits)  
This course starts with the basics of computer technology to build a foundation for understanding where evidence can be found. It introduces students to the technology and procedures of acquiring and analyzing digital evidence taken from computers. This course also exposes students to the software being used in the industry. Lecture: 2 hours, Lab: 2 hours - Lab Fee: $20

COMI 2036 - Introduction to Computer Ethics  
(3 Credits)  
This course explores the ethical impact of computer technology on the world, as well as the rules and regulations that ensure the proper use of technology. Internet crime, privacy protection and first amendment rights that protect our freedoms in cyberspace are closely examined. Lecture: 3 hours, Lab: 1 hour - Lab Fee: $20

COMI 2037 - Introduction to Cybersecurity  
(3 Credits)  
This course introduces students to the opportunity that exists in the cybersecurity field. Topics such as certified ethical hacking, cyber threats and vulnerabilities and cryptography are introduced. Lecture: 2 hours, Lab: 2 hours - Lab Fee: $20

COMI 2040 - Beginning Game Programming  
(3 Credits)  
This course will introduce the student to game development and the beginning principles of game programming. (Required: COMI 1150) Lecture: 2 hours, Lab: 2 hours - Lab Fee: $20

COMI 2055 - Introduction to Virtual Computing  
(1 Credit)  
This five-week class provides an introduction to computer virtualization concepts which include hands-on activities of installing, configuring and using virtualization products. Lecture: 2 hours, Lab: 2 hours - Lab Fee: $10

COMI 2225 - Advanced Programming in C#  
(3 Credits)  
This course introduces the student to advanced topics in programming and software design using Microsoft’s C# programming language. Topics covered include classes, abstract classes, inheritance, ADO.Net data driven applications using a database, ASP.Net for Web applications, collections and file streams. (Prerequisites: COMI 1215, 1225, or permission of instructor) Lecture: 3 hours, Lab: 1 hour - Lab Fee: $20

COMI 2510 - Advanced Java Programming  
(3 Credits)  
This course introduces students to advanced topics in programming and software design such as graphical modeling techniques and algorithms and analysis as well as current techniques in interface design and user interaction. Specific topics reflect current technologies and might include inheritance and polymorphism in object-oriented design and graphical user interfaces and the event loop. (Required: COMI 1510) Lecture: 3 hours, Lab: 1 hour - Lab Fee: $20

COMI 2520 - Data Structures and Algorithms  
(3 Credits)  
This course introduces the student to data structures, algorithm design, and space and time complexity analysis. Topics include common data structures such as linked lists, stacks, queues, binary trees, searching and sorting algorithms, maps, and hash tables, and techniques of run-time complexity analysis such a Big O notation. (Prerequisite: COMI 2510) Lecture: 3 hours, Lab 1 hour. - Lab Fee: $20
## COMM (Communication)

### COMM 1000 - Foundations in Video and Audio Production

(4 Credits)

This introductory hands-on course is designed for students who have little or no experience in video/sound production. They learn the basics of image and sound creation necessary for subsequent courses. Topics include camera and microphone operation, video and audio capture, camera supports, editing, adding foley and sound tracks, titling, effects, and color correction. Students will also learn how to compress and encode video so that it is optimized for current platforms. (Prerequisite: Eligible for ENGL 1005 or higher and ENGL 0850 or higher or permission of instructor). Lecture: 4 hours - Lab Fee: $20

### COMM 1005 - Careers in Communication & Film

(1 Credit)

This course is designed to give students an overview of the Communication and Film industries and related careers. Students will explore personal values and academic goals through individual projects, class exercises and group interaction as they learn the educational requirements of specific career degrees and develop the baseline skill necessary for working in Communication or Film, including ethical reasoning, effective communication and self-directed lifelong learning. This course is required for all students in the Communication and Film degree and should be taken during the student’s first semester in the program. Lecture: 1 hour

### COMM 1010 - Communication Fundamentals

(3 Credits)

This course examines fundamental concepts related to communicating across a variety of contexts and cultures while emphasizing practical application to everyday life. Through multiple methods (readings, lectures, discussions, activities, research, written and speaking assignments), this course presents predominant theories of and guided experiences with interpersonal, group, and public communication. Focus is on analyzing audiences, identifying/evaluating communication styles, researching effective/ethically, and presenting sound arguments. The real-world skills that students develop help them maintain healthy relationships, increase understanding of others, and voice ideas and concerns in public forums. (Prerequisites: Eligible for ENGL 1005 or higher and ENGL 0850 or higher or permission of instructor). Lecture: 3 hours

### COMM 1050 - Mass Media Foundations

(3 Credits)

This introductory course surveys how media influences individuals, cultures, and societies. Topics include entertainment media, digital media, the Internet, books, newspapers, magazines, recordings, advertising, and other relevant issues. In addition, media ethics and responsibility, government regulation, legal issues, politics, and corporate media will be examined. Lecture: 3 hours

### COMM 1100 - Public Speaking

(3 Credits)

This one-semester basic course in speech is designed to develop each student's ability to communicate effectively in his or her academic, business and social life. The major emphasis is on the preparation and delivery of formal speeches, but many areas of the communication process are explored. (Prerequisites: Eligible for ENGL 1005 or higher and ENGL 0850 or higher or permission of instructor). Lecture: 3 hours

### COMM 1110 - Voice and Articulation

(3 Credits)

Designed for those people with speech habits resulting in problems of being heard and understood, this course emphasizes voice development and improvement in articulation for clearer and more effective speech. Lecture: 3 hours

### COMM 1180 - Oral Interpretation

(3 Credits)

This course is designed for students with experience in speaking who are planning careers that require them to read aloud, to be dramatic and to tell stories, possibly to children. The student will learn to interpret prose and poetry orally for the entertainment and edification of small or large audiences. Lecture: 3 hours

### COMM 1400 - Social Media Communication

(3 Credits)

This course will explore the history, rise, and growth of social media as a 21st century communication practice. Students will study the advances that led to the creation of social media and just as importantly examine how the use of social media fed its growth. Students will develop social media
communication plans and practice digital communication using online tools, such as Facebook, Twitter, LinkedIn, Kickstarter, YouTube, Flickr, Digg, and Tumblr.

Lecture: 3 hours

**COMM 2000 - Media Writing**  
(3 Credits)  
This course provides instruction in writing for print, broadcast, video, and new media. Students will practice skills including form and content required for various media. Writing objectively, considering legal and ethical issues, developing ideas and stories, gathering information, and interviewing are some concepts covered by this course. (Prerequisite: Placement in ENGL 1010 or completion of ENGL 1005 with a grade of C or better). Lecture: 3 hours

**COMM 2025 - Interpersonal Communication**  
(3 Credits)  
This course surveys theories and concepts related to communication between individuals. Through participation in course activities and assignments, students will analyze interpersonal interactions in the world around them and apply strategies to improve their own communication style to meet personal, social, and professional goals. Topics include self-concept, perception, effective listening, types of relationships/stages of development, nonverbal communication, and conflict resolution. Emphasis is placed on examining interpersonal communication from diverse perspectives, including age, gender, race, and culture. (Prerequisites: Eligible for ENGL 1005 or higher and ENGL 0850 or permission of instructor). Lecture: 3 hours

**COMM 2050 - Media and Broadcast History**  
(3 Credits)  
Media and Broadcast History is an overview of the institutional, technological, and social history of media and broadcasting. Starting with media of early civilization, students will study developments and trends throughout history that will culminate with media of the present. This course will reveal the major models of print, radio, television and the Web that have provided the foundation for communication in industry and society. The historical roles of content producers, broadcasters, and government regulators will be explored to provide students with a greater understanding of media today. Lecture: 3 hours

**COMM 2100 - Studio Production**  
(3 Credits)  
This introductory course familiarizes students with video production in a studio environment, including the use of studio cameras, studio lighting and sound and control room functions. Students will acquire the necessary skills to produce basic video productions for television and the Web. Students will learn to communicate effectively by making class presentations, writing production proposals and completing video productions. (Prerequisite: COMM 1000)  
Lecture: 3 hours, Lab: 1 hour - Lab Fee: $20

**COMM 2200 - Documentary Production**  
(3 Credits)  
This course builds on basic video production principles learned in COMM 1000 and COMM 2100 and incorporates field production techniques. Students will use both analog and digital technology. Lectures, screenings, and hands-on labs provide an in-depth understanding of video production and related business topics. Also included are technical aspects of scripting, lighting, camera operation, continuity, post-production editing, logistics, and preparing a production budget. (Prerequisite: COMM 1000)  
Lecture: 3 hours, Lab: 1 hour - Lab Fee: $20

**COMM 2221 - Multimedia Reporting**  
(3 Credits)  
In this course, students will learn the latest technologies to write, produce, and distribute media stories for a variety of formats. Building on writing skills, students will become proficient in using still cameras, video cameras, and audio-recording devices to support a news story. Students will use cameras and audio-recording devices to deliver a news story. In essence, this course exposes students to skills needed by contemporary media journalists. (Prerequisite: COMM 2000).  
Lecture: 3 hours, Lab: 1 hour - Lab Fee: $20

**COMM 2300 - Video & Media Editing**  
(3 Credits)  
This course provides the student with an in-depth study of the history, techniques and technology of video and media editing. Students will study the principles and practices of editing by analyzing examples from classic and contemporary film and video as they learn how to build and strengthen a story and engage an audience. Using the latest industry non-linear software tools, students will work on advanced editing exercises that provide opportunities to master the editing process. An overview of the editing process, techniques, in-depth procedures, and skills will be reviewed. At the end of the course, the student will have learned the skills necessary to prepare for professional certification. (Pre-requisite: COMM 1000)  
Lecture: 3 hours, Lab: 1 hour - Lab Fee: $20
COMM 2310 - Sound Design and Production  
(3 Credits)  
This course examines the techniques and production of audio communication. Students will explore elements of audio for media, including video, radio, web, commercials, news reporting, sports commentary, monologues, narration, voice-over, podcasting, ADR, Foley, film scoring and mixing. (Prerequisite: COMM 1000). Lecture: 3 hours, Lab: 1 hour - Lab Fee: $20

COMM 2350 - Motion Graphics for Media Communication  
(3 Credits)  
This course teaches students the syntax of motion graphics so that they understand the how and why of incorporating effects in a video sequence. Students become familiar with industry standard tools to make video productions communicate more effectively, much like writers use parts of speech and punctuation to craft their messages. (Prerequisite: COMM 1000). Lecture: 3 hours, Lab: 1 hour - Lab Fee: $20

COMM 2400 - Production and Distribution Fundamentals  
(3 Credits)  
Students in this course gain a practical understanding of the planning and distribution of media productions and film projects. This course incorporates budget; recruitment of crew and talent; preparation of sets, props, and costumes; and marketing media strategies. In addition to learning through lectures, screenings, and labs to gain an in-depth understanding and working knowledge of the business side of media, students will use digital technology to optimize media for broadcast, web, commercial and social media outlets across various devices. Digital methods will include media streaming, DVD authoring, and television and podcasting. Special attention will be given to providing students with practical experience in preparing their own media portfolio for presentation to prospective employers, clients, and college or university admission. (Prerequisite: COMM 1000). Lecture: 3 hours, Lab: 1 hour - Lab Fee: $20

COMM 2490 - Field Experience  
(2 Credits)  
In this course, students will work off-site at a company and interest area that they are studying. Students will be matched with an opportunity that allows them to apply their skills learned in the classroom and that provides a real-world experience in Communication and Film/Media. (Prerequisite: Last semester and/or permission of instructor). Lecture: 2 hours, Site hours: 6 hours

COMM 2500 - Capstone Portfolio  
(2 Credits)  
In this course, students will create a professional portfolio of representative work that demonstrates their skills and ability in media creation. Through a series of short exercises and assignments, students will assemble a body of work from their course assignments and independent projects to create this comprehensive online portfolio. The course is taken in the last semester of the program sequence. (Prerequisite: Last semester and/or permission of instructor). Lecture: 2 hours, Lab: 1 hour - Lab Fee: $20

COMP (Computer Science)

COMP 1170 - Computer Application Systems  
(3 Credits)  
This course covers processes followed in designing computer systems, characteristics of key business computer applications and inter-relationships between computer applications. Exercises and case problems are used to provide a thorough understanding of flowcharting techniques and application development. Lecture: 3 hours

COMP 1200 - Database Design & Management  
(3 Credits)  
This course provides a foundation in database theory. Students learn database design principles utilizing ERD and Normalization techniques. Database implementation and management utilizing SQL basics and transactions are also discussed. Lecture: 3 hours, Lab: 1 hour - Lab Fee: $20

COMP 1210 - Database Implementation and Administration  
(3 Credits)  
This course focuses on the significant aspects of implementing, utilizing and maintaining a database using a relational DBMS. Students learn the basics of database implementation including installing and configuring a DBMS, creating and populating database tables, managing database tables using constraints and indexes, and extracting data using SQL. (Recommended: COMP 1200) Lecture: 2 hours, Lab: 2 hours - Lab Fee: $20
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMP 1230</td>
<td>Systems Analysis and Design</td>
<td>4</td>
<td>This course serves as a capstone course and offers an introduction to concepts, methodology and techniques used in business-systems analysis and the design of computerized business systems. A project-team approach is used to solve a case study. (Recommended: Take in final semester or with permission of instructor.) Lecture: 3 hours, Lab: 2 hours - Lab Fee: $20</td>
</tr>
<tr>
<td>COMP 2430</td>
<td>Operating Systems</td>
<td>4</td>
<td>This course covers the structure and components of operating systems. Topics include controlling system resources, interface concepts, multiprogramming, networks and command language techniques of current operating systems. Laboratory assignments provide application of these principles. Lecture: 3 hours, Lab: 1 hour - Lab Fee: $20</td>
</tr>
<tr>
<td>COMP 2500</td>
<td>Cybersecurity Practicum/Capstone Course</td>
<td>3</td>
<td>The Cybersecurity Practicum/Capstone course provides “hands on” experience to promote development of important skills. Weekly meetings with the course instructor will review key program topics. To complete the course, the student is required to spend an average of 10 hours per week of field work under the guidance of industry professionals in order to apply the accumulation of program knowledge in a real world setting. The student will be required to produce a report relating to the work experience and how it is connected to the content of this program. This class also has an on-campus meeting requirement which will be used to develop a portfolio identifying the experiences the student has been exposed to in the field. Students will keep a working journal during the semester to help assess the progress of their experience. (Prerequisite: Final semester standing and permission of instructor) Lecture: 1 hour, Clinical: 10 hours per week for 13 weeks - Lab Fee: $20</td>
</tr>
<tr>
<td>CTIC 1010</td>
<td>Fundamentals of CT</td>
<td>1</td>
<td>This hybrid interactive, web-based course is designed to provide students with an overview of CT instrumentation, imaging applications, physics, data acquisition and history. Students will learn to apply theory to different types of CT equipment. Module 1 describes the history and evolution of computed tomography and the most common uses of CT scanning in medical imaging. You will learn the location and function of major CT equipment components and the basic digital imaging process. Module 2 provides an in-depth description of major CT equipment components and the sequence of events from the application of electrical current to the radiographic tube to the image. You will learn how adjusting the operator console parameters can affect CT image data and the elements of a digital image. Module 3 describes the methods of acquiring computerized topography images, the process of data acquisition and the factors that influence that process. You will learn the functions of the data acquisition system and the selectable scan factors used to acquire an image. Prerequisite: Acceptance into CT Certificate program with Credentials in Radiology, Nuclear Medicine or Radiation Therapy. 1 credit. (5 weeks, 4 hours/week)</td>
</tr>
<tr>
<td>CTIC 1020</td>
<td>Procedures and Protocols in CT Imaging</td>
<td>2</td>
<td>This hybrid interactive, web-based course is designed to provide students with an overview of CT procedures. Students will match pathologic processes with the appropriate procedures; choose scan parameters; perform patient history assessments, preparation, filming, and archiving; review CT images for anatomy, quality, and pathology and common diseases diagnosed via CT. Module 4 describes the steps for computed topography image reconstruction and the post-processing techniques needed for image enhancement. Students will learn how certain tools are used to view a CT image and the methods used for recording and archiving CT data. Workstation applications for specialized CT scanning are also described in this module. Module 7 explains how to properly position a patient and select appropriate scan parameters for common CT examinations. Students will learn why different window widths and levels are selected and the imaging planes required for each procedure. Module 6 explain the methods used to determine image quality in computed tomography and factors that affect image quality. You will learn how to identify CT image artifacts and the factors that influence artifacts. The tests associated with quality control programs are also discussed in this module. Prerequisite: Acceptance into CT Certificate program with Credentials in Radiology, Nuclear Medicine or Radiation Therapy. 2 credits. 10 weeks, 4 hours/week</td>
</tr>
</tbody>
</table>
| CTIC 1030  | Cross-sectional Anatomy I                        | 6       | This hybrid interactive, web-based course will focus on anatomy of the human body as it is viewed in the various axial, coronal, and sagittal planes. Radiologic anatomy will be viewed in the context of illustrations and pictures of gross anatomical sections. Module 8 identifies and describes the anatomical planes and structures of the head and neck. You will also learn how to describe the stages of human embryo development as it relates to this region of the body. Module 9 describes the major structures of the chest, abdomen and pelvis and how these structures function. You will learn how to identify abdominal quadrants and how to locate origins or structures on a diagram or CT image. CT Clinical Practicum I course is designed
to allow qualified technologists to complete the number of clinical procedures mandated by the American Registry of Radiographic Technologist (ARRT) to be considered eligible to apply to sit for certification in CT, while emphasizing the importance of patient care, radiation safety and the principles of radiation protection in the CT department. The course is designated to allow students hands-on experience documenting and performing CT exams within the clinical setting under the direct supervision of a registered technologist. This course is competency based, and students will be assessed through competency exams to document the achievement of clinical objectives. Prerequisite: Acceptance into CT Certificate Program with Credentials in Radiology, Nuclear medicine or Radiation Therapy. 6 credits. Lecture 10 weeks, 3.5 hours/week. Clinical 10 weeks, 16 hours/week.

CTIC 2010 - Patient Care for CT
(1 Credit)
This hybrid interactive, web-based course is designed to provide basic concepts of patient care as they relate to CT. Topics include emergency procedures, sterile and aseptic techniques, phlebotomy, body mechanics, infection control and standard precautions, patient assessment, cultural competence, contrast media, and basic pharmacology in imaging. Introduces Radiation Safety. Module 5 describe the methods used to measure patient dose and the role of the computed tomography technologist in reducing radiation exposure. You will learn shielding and positioning techniques designed to keep both you and the patient safe. Special considerations for pediatric patients are detailed in this module as well. Module 5a presents the basic principles, concepts, and procedures of radiation protection and radiobiology. Topics include radiation units; principles of radiation protection; absorbed dose calculations; health physics procedures; radiation exposure regulations; and reduction of radiation exposure to patients, personnel, and the environment. Prerequisite: Acceptance into CT Certificate Program with Credentials in Radiology, Nuclear medicine or Radiation Therapy; Fundamentals of CT; Procedures & Protocols in CT Imaging; Cross-sectional anatomy I 1 credit. 5 weeks, 4 hours/week.

CTIC 2020 - Advanced applications and Pathology for CT
(3 Credits)
This hybrid interactive, web-based course is designed to provide students with advanced applications involving other modalities such as Interventional Radiology. Students will be introduced to common pathology imaged using CT with its advantages. Module 10 describes the current trends and basic procedures in computed tomography and how modifications are used for trauma and pathology. You will learn the uses of virtual CT in medical imaging and how CT is used in radiation therapy treatment planning, nuclear medicine and mobile imaging. Module 11 explains how to identify selected pathology on CT images and how to distinguish between the CT appearance of normal organ tissues and tissues with pathological changes. You will also learn the causes for common pathologies and their processes. This is part one of a two-part series. Module 12 is a continuation of Module 11 and is part two of a two-part series. This module explains how to identify selected pathology on CT images and how to distinguish between the CT appearance of normal organ tissues and tissues with pathological changes. You will also learn the causes for common pathologies and their processes. Prerequisite: Acceptance into CT Certificate Program with Credentials in Radiology, Nuclear medicine or Radiation Therapy; Fundamentals of CT; Procedures & Protocols in CT Imaging; Cross-sectional anatomy I 3 credits. Lecture 5 weeks, 3.5 hours/week. Clinical 5 weeks, 16 hours/week.

CTIC 2030 - Cross-sectional Anatomy II
(6 Credits)
This hybrid interactive, web-based course will focus on anatomy of the human body as it is viewed in the various axial, coronal, and sagittal planes. Radiologic anatomy will be viewed in the context of illustrations and pictures of gross anatomical sections. Module 2 presents sectional anatomy of the cranium and facial bones. This module is designed to enhance your study of your sectional anatomy course textbook. Sections 2 through 6 provide a detailed study of the anatomy of the cranium and facial bones divided into portions. Module 4 presents sectional anatomy of the vertebral column and the spinal cord. This module is designed to enhance your study of your sectional anatomy course textbook. Sections 2 through 6 provide a detailed study of the spine. Module 6 presents sectional anatomy of the thorax. This module is designed to enhance your study of your sectional anatomy course textbook. Sections 2 through 8 provide a detailed study of thoracic anatomy. Module 9 presents sectional anatomy of the upper extremity, including the shoulder joint. This module is designed to enhance your study of your sectional anatomy course textbook. Sections 2 through 6 provide a detailed study of the anatomy of the upper extremity. Module 10 presents sectional anatomy of the lower extremity, including the hip joint. This module is designed to enhance your study of your sectional anatomy course textbook. Sections 2 through 5 provide a detailed study of the anatomy of the lower extremity, divided into portions. CT Clinical Practicum I course designed to allow qualified technologists to complete the number of clinical procedures mandated by the American Registry of Radiographic Technologist (ARRT) to be considered eligible to apply to sit for certification in CT, while emphasizing the importance of patient care, radiation safety and the principles of radiation protection in the CT department. The course is designed to allow students hands-on experience documenting and performing CT exams within the clinical setting under the direct supervision of a registered technologist. This course is competency based, and students will be assessed through competency exams to document the achievement of clinical objectives. Prerequisite: Acceptance into CT Certificate Program with Credentials in Radiology, Nuclear medicine or Radiation Therapy; Fundamentals of CT; Procedures & Protocols in CT Imaging; Cross-sectional anatomy I 6 credits. Lecture 10 weeks, 3.5 hours/week. Clinical 10 weeks, 16 hours/week.
**CYBR (Cybersecurity)**

**CYBR 1100 - Introductory Cyber Range Tools and Techniques**  
(3 Credits)  
This course focuses on techniques, considered preventative in nature, which are used to manage and protect networking devices from external attacks. This course utilizes hands-on virtual labs which allow students to examine sophisticated devices such as ASA firewalls and to explore how these devices may be used to control access to resources. We will also explore methods to test, audit, and analyze the outcomes of a cyber-attack. Lecture: 3 hours, Lab 1 hour. - Lab Fee: $20

**CYBR 1200 - Defending Internal Threats using the Cyber Range**  
(3 Credits)  
This course focuses on techniques, considered preventative in nature, which are used to manage and protect networking devices from internal attacks. This course utilizes hands-on virtual labs which allow students to examine sophisticated devices such as ASA firewalls and to explore how these devices may be used to control access to resources. We will also explore methods to test, audit, and analyze the outcomes of a cyber-attack. Lecture: 3 hours, Lab 1 hour. - Lab Fee: $20

**DAST (Dental Assisting)**

**DAST 1010 - Oral Biology I**  
(2 Credits)  
This is an introductory course in head and neck anatomy and physiology for the dental assistant. Particular attention is devoted to the oral cavity. Topics include the terminology and function of the teeth, occlusion, skull, nerve innervation and blood flow. (Prerequisite: Enrollment in Dental Assisting Program) Lecture: 2 hours

**DAST 1020 - Preventive Dentistry**  
(2 Credits)  
This course offers students an introduction to the prevention and management of oral diseases. (Prerequisite: Enrollment in Dental Assisting Program) Lecture: 2 hours

**DAST 1030 - Chairside Dental Assisting I**  
(4 Credits)  
This course introduces students to procedures and practices involved in assisting the dentist. Content includes the preparation, use and care of dental instruments and equipment; patient management; basic microbiology and infection control procedures. (Prerequisite: Enrollment in Dental Assisting Program) Lecture: 3 hours, Lab: 4 hours - Lab Fee: $20

**DAST 1040 - Oral Biology II**  
(3 Credits)  
This course covers patient evaluation with medical histories, medical emergencies and oral conditions. Students are introduced to the fundamental concepts involving the development of oral tissues. (Prerequisite: DAST 1010) Lecture: 2.5 hours

**DAST 1050 - Chairside Dental Assisting II**  
(5 Credits)  
This course is a continuation of DAST 1030. Students develop basic skills for assisting the dentist with dental specialties, such as endodontics and oral and maxillofacial surgery. Students are assigned to dental treatment facilities for supervised practice of clinical skills. Includes a one-week intercession. (Prerequisites: BIOL 1020 or 1070) Lecture: 2 hours, Lab: 4 hours, Clinical: 320 hours over 16 weeks - Lab Fee: $20

**DAST 1060 - Dental Office Procedures**  
(2 Credits)  
This course covers principles and practices of the dental office. Topics include telephone, patient and appointment management; the preparation, use and care of office and treatment records; third party payment; supply and inventory control; use of computers to perform basic dental office procedures; and the legal and ethical standards required of professional dental personnel. Lecture: 2 hours
**DAST 1225 - Dental Materials Lecture**  
(1 Credit)  
This course introduces students to the materials used in dental practice, including their physical properties and uses and considerations for their selection. (Prerequisite: Enrollment in Dental Assisting Program) Lecture: 1 hour

### DENT (Dental Assisting/Hygiene)

**DENT 1000 - Introduction to Dental Health Careers**  
(2 Credits)  
This course provides an introduction to dental assisting and dental hygiene fields. Students gain an understanding of both professions, how to achieve success in dental assisting and dental hygiene programs and basic dental terminology. This course is a prerequisite for entering the dental hygiene program and optional for the dental assisting program. Lecture: 2 hours - Lab Fee: $20

**DENT 2010 - Oral Radiography**  
(4 Credits)  
This is a foundation course for dental radiographers. Topics include fundamentals of radiation physics, generation and control of the radiation beam, basic radiation biology and methods of population protection, films and film processing, radiographic projection and basic radiographic anatomy and pathology. Supervised laboratory practice includes exposure, evaluation and interpretation of intraoral and panoramic radiographs. (Prerequisite: Enrollment in Dental Assisting or Dental Hygiene Program) Lecture: 3 hours, Lab: 2 hours - Lab Fee: $20

**DENT 2220 - Dental Materials Lab for Dental Hygienists**  
(1 Credit)  
This hybrid course has an outline component with hands-on experience for the dental hygiene student to learn about and practice with materials and techniques used in dental hygiene practice. (Prerequisite: Acceptance into the Dental Hygiene program). Lab: 4 hours - Lab Fee: $10

**DENT 2225 - Dental Materials Lab for Dental Assistants**  
(1 Credit)  
This lab provides hands-on experience for dental assisting students to develop skills in the preparation and manipulation of materials commonly used in dental practice. (Prerequisite: Enrollment in Dental Assisting Program) Lab: 4 hours - Lab Fee: $10

### DHYG (Dental Hygiene)

**DHYG 1010 - Dental and Oral Anatomy**  
(3 Credits)  
This course is a study of the structure and function of the mouth, teeth, head and neck. (Prerequisite: Acceptance into the Dental Hygiene Program) Lecture: 3 hours. - Lab Fee: $20

**DHYG 1020 - Dental Hygiene I**  
(3 Credits)  
This course introduces students to the fundamental skills and procedures in dental hygiene practice. (Prerequisite: Acceptance into the Dental Hygiene Program) Lecture: 3 hours - Dental Hygiene Fee: $100

**DHYG 1030 - Clinical Dental Hygiene I**  
(2 Credits)  
This course provides an opportunity for students to apply the principles studied in DHYG 1020 in the pre-clinical setting. Students work with mannequins and laboratory partners. (Prerequisite: Acceptance into the Dental Hygiene Program) Lab: 6 hours - Lab Fee: $20

**DHYG 1040 - Oral Embryology and Histology**  
(2 Credits)  
This course involves the study of the development, microscopic structure and function of oral and facial tissues. Lecture: 2 hours
DHYG 1050 - Dental Hygiene II  
(3 Credits)  
A continuation of the principles of DENT 1020, this course covers the philosophy of prevention, concepts of health and wellness, the dental hygiene treatment plan oral infection control, sealants and fluorides. Emphasis is on communication skills, patient management and development and implementation of educational strategies. (Prerequisites: DHYG 1020, 1030) Lecture: 3 hours

DHYG 1060 - Clinical Dental Hygiene II  
(3 Credits)  
This course continues application of the principles and skills learned in DHYG 1020 and DHYG 1030 as well as new material learned in DHYG 1050 including patient education and management. (Prerequisites: DHYG 1030) Clinic: 8 hours - Lab Fee: $20

DHYG 2010 - Pathology  
(2 Credits)  
This course is an examination of general and oral diseases. Content includes etiologic agents, tissue response to injury, immunopathology, neoplasia, cardiovascular disease, general diseases with oral manifestations and oral pathology. Consideration is given to specific conditions of importance to oral assessment and care. (Prerequisite: BIOL 1020, DHYG 1040) Lecture: 2 hours

DHYG 2020 - Dental Hygiene III  
(3 Credits)  
This course continues to expand on the principles of dental hygiene practice. Topics include service to patients with special needs and nutrition, including nutritional counseling. (Prerequisites: DHYG 1050, 1060) Lecture: 3 hours - Dental Hygiene Fee: $100

DHYG 2030 - Clinical Dental Hygiene III  
(4 Credits)  
This course continues application of the principles and skills practiced in DHYG 1050, 1060 and 2020. (Prerequisites: DHYG 1050 and 1060) Clinic: 12 hours - Lab Fee: $20

DHYG 2040 - Community Dental Health I  
(2 Credits)  
This course introduces students to the principles of dental hygiene practice in the community setting. Content includes financing and delivery of care, cultural diversity, education of groups, program planning and evaluation and management of the evidence base for dental hygiene practice. (Prerequisite: PSYC 2010, DHYG 1060) Lecture: 2 hours

DHYG 2045 - Community Dental Health II  
(1 Credit)  
This course allows students to apply principles of dental hygiene practice through a supervised externship in a community dental health facility. (Prerequisite: DHYG 1010, 2020 and 2030) Clinic: 3 hours - Lab Fee: $10

DHYG 2050 - Periodontics  
(3 Credits)  
This course involves an intensive study of the periodontium as it relates to dental hygiene practice. Content includes epidemiology and pathogens of periodontal disease, assessment of periodontal status, current therapeutic intervention and strategies for maintenance of the periodontal patient. (Prerequisites: BIOL 1020 and 2210) Lecture: 3 hours

DHYG 2060 - Dental Hygiene IV  
(2 Credits)  
This course continues to expand on principles of dental hygiene practice. Content includes legal and ethical issues, dental specialties and entering the professional work force. (Prerequisite: DHYG 2020, 2030) Lecture: 2 hours

DHYG 2070 - Clinical Dental Hygiene IV  
(5 Credits)  
This course allows students to continue to apply the principles and skills practiced in DHYG 2020, 2030 and 2060. Integration of dental hygiene procedures into a complete dental hygiene service is covered. (Prerequisite: DHYG 2030) Clinic: 15 hours - Lab Fee: $20
DHYG 2090 - Pharmacology for the Dental Hygienist  
(3 Credits)  
This course is a study of the principles of pharmacology as they relate to oral health care. Content includes indications and contraindications for use, pharmacological effects, adverse reactions and interaction of drugs. Special consideration is given to drugs commonly used in dentistry, as well as oral implications of drugs. (Prerequisites: BIOL 1020, DHYG 1020) Lecture: 3 hours

DHYG 2200 - Local Anesthesia for the Registered Dental Hygienist  
(2 Credits)  
This course is designed to enable practicing dental hygienists to gain the knowledge and skill needed to earn a permit to administer local anesthesia in Rhode Island. Topics include oral anatomy, neurophysiology, the pharmacology and pharmacokinetics of local anesthetic agents, legal issues related to local anesthesia and basic injection techniques. Students will serve as patients for each other. (Prerequisites: Active licensure as a dental hygienist in Rhode Island or another state with substantially similar licensure requirements, current CPR certification (American Heart Association, Health Care Provider level); Completed hepatitis B vaccination series) Lecture: 2 hours, Lab: 2 hours - Local Anesthesia Course Fee-DH: $750

DHYG 2201 - Administration of Nitrous Oxide for the Registered Dental Hygienist  
(1 Credit)  
This course is designed to enable licensed dental hygienists to gain the knowledge and the skill indicated to earn a permit to administer nitrous oxide in Rhode Island. Topics will include: History of Nitrous Oxide, review of oral anatomy, the circulatory and respiratory system in pediatrics and adults, review of physiology and psychology of pain and anxiety, pain control modalities, pharmacology of Nitrous oxide and drug interactions, patient assessment and monitoring, preventing and managing complications, description and use of inhalation equipment, sedation and general anesthesia techniques and ethical and legal considerations. Students participating in the class will serve as patients for each other. Pre-requisite Information: Active licensure as a dental hygienist in Rhode Island or another state with substantially similar licensure requirements, current CPR certification at the American Heart Association, Health Care Provider level: Completed Hepatitis B vaccination series. - Lab Fee: $20

DHYG 2202 - Management of Medical Emergencies for the Public Health Dental Hygienist  
(1 Credit)  
This course prepares Registered Dental Hygienists to meet the educational requirements to manage medical emergencies as a licensed Public Health Dental hygienist. Topics will include: Risk assessment through evaluation of clinical implications for potential emergencies related to specific items on a health history form. Recognition and management based on clinical signs and symptoms for emergency related medical conditions. Implementation of an emergency plan through simulation exercises. (Prerequisites: Registered Dental Hygienist who holds a valid license to practice in the State of Rhode Island or another state with substantially similar licensure requirements, current CPR certification at the American Heart Association, Health Care Provider level and has fulfilled a minimum of three (3) years of full-time or an equivalent of 4500 hours of clinical dental hygiene experience.)

DHYG 2203 - Infection Control for the Public Health Dental Hygienist  
(1 Credit)  
This course is designed to prepare the Registered Dental Hygienist to meet the educational requirements for infection control in the dental setting alternative public health dental environments such as schools, mobile dental vans and long term care facilities. (Prerequisites: Registered Dental Hygienist who holds a valid license to practice in the State of Rhode Island who has fulfilled a minimum of three (3) years of full-time or an equivalent of 4500 hours of clinical experiences.)

DHYG 2204 - Risk and Practice Management for the Public Health Dental Hygienist  
(1 Credit)  
This course will prepare Registered Dental Hygienists to meet the educational requirements on risk management as a licensed public health dental hygienist. Topics will include Risk management as a public health dental hygienist, practice management, dental billing and coding, dental equipment vendors, grant writing and resources. A dental externship at a community health center will be required. Guidelines for treating geriatric and pediatric patients will be discussed. Tool kit links through the Rhode Island Department of Health for public health dental hygiene practice will be addressed. (Prerequisites: Registered Dental Hygienist who holds a valid license to practice in the State of Rhode Island or another state with substantially similar licensure requirements, current CPR certification at the American Heart Association, Health Care Provider level and has fulfilled a minimum of three (3) years of full-time or an equivalent of 4500 hours of clinical dental hygiene experience.)
# DMSD (Diagnostic Medical Sonography)

## DMSD 2100 - Patient Care in Sonography

**Course Description:**
This course is designed to develop the knowledge and skills necessary to address the needs of the patient in the diagnostic imaging department. The success of the students in the clinical setting requires the ability to conduct themselves in a professional and ethical manner. The safety of the patient requires the student to have knowledge of the patient assessment, basic nursing skills and the ability to react to medical emergencies. Lecture: 3 hours

## DMSD 2210 - Sonographic Physics

**Course Description:**
This course provides students with theoretical and practical aspects of ultrasound physics and instrumentation. Wave form, propagation, velocity, wave length, acoustic impedance, reflection and rarefaction are discussed. Components of the ultrasound imager are examined as well as recording devices and basic Doppler principles. (Prerequisite: MATH 1200 or MATH 1900 or MATH 1910 or equivalent) Lecture: 3 hours, Lab: 2 hours - Lab Fee: $20

## DMSD 2220 - Sonographic Imaging

**Course Description:**
This course provides students with general information that has application in all the ultrasonic imaging concentrations. It addresses standard protocols for patient care, as well as the management of data from other imaging modalities, laboratory findings and patient history. Pertinent legal principles are also covered. An overview of the categories in which disease occurs is included. The biological effects of ultrasound is discussed along with quality control procedures and their importance. Lecture: 3 hours

## DMSD 2230 - Abdominal Ultrasound

**Course Description:**
This course provides a foundation of physiology, pathology and pathophysiology as it related to the human abdomen specific to the performance of abdominal Sonography. Students begin to recognize normal and abnormal imaging as it relates to anatomy, pathology and pathophysiology of the abdomen. Bioeffects, ALARA principle, pertinent in-vitro and in-vivo studies, exposure display indices, and maximum safe exposure levels will be incorporated into the didactic and laboratory classes. Laboratory experience will include development of entry level scanning techniques and protocols on the human abdomen. Students will demonstrate the ability to perform entry level abdominal sonographic examinations using real-time sonographic equipment, Doppler and color Doppler equipment with various transducers. (Prerequisites: DMSD 2100) Lecture: 3 hours, Lab: 2 hours - Lab Fee: $20

## DMSD 2235 - Ultrasound for Small Parts, Gynecology and Male Pelvis

**Course Description:**
This course provides a foundation of physiology, pathology and pathophysiology as they relate to the male and female pelvis, thyroid, breast and scrotum. The student will begin to recognize normal and abnormal imaging as they relate to anatomy, pathology and pathophysiology of these structures. Scanning techniques and protocols are discussed in normal and abnormal conditions. Bioeffects, ALARA principle, pertinent in-vitro and in-vivo studies, exposure display indices, and maximum safe exposure levels will be incorporated into the didactic and laboratory classes. Laboratory experience will include further development of entry to mid-level scanning techniques and protocol on the human male and female pelvis, thyroid, breast, and scrotum. Students will demonstrate the ability to perform entry to mid-level sonographic examinations using real-time sonographic equipment, Doppler and color Doppler equipment with various transducers. (Prerequisites: DMSD 2230) Lecture 3 hours, Lab 2 hours - Lab Fee: $20

## DMSD 2236 - Musculoskeletal Sonographic Imaging

**Course Description:**
This course provides a foundation of anatomy and pathology as they relate to the human musculoskeletal system specific to the performance of sonography. Students will recognize normal and abnormal sonographic imaging related to the shoulder, elbow, hand and wrist, hip, knee, and foot and ankle. Biueffects, LARA, principles of sonography will be incorporated in the didactic and laboratory classes. Laboratory experience will include development of entry-level sonographic scanning techniques of the musculoskeletal system. Student will demonstrate the ability to perform entry-level musculoskeletal sonographic examinations using real-time sonographic equipment, Doppler, and color Doppler with appropriate transducers. (Prerequisite DMSD 2210 or any Registered Sonographer with ARDMS or CCI. Lecture: 2 hours, Lab: 2 hours).

## DMSD 2240 - Obstetrical Ultrasound

**Course Description:**
This course will focus on the embryology and fetal development in the first, second and third trimester. Recognition of normal and abnormal anatomy will be addressed in the obstetrical, embryonic and fetal patient. Abnormal patterns of pathology and pathophysiology including genetic malformations are discussed. Scanning techniques, protocols and sonographic findings are discussed in the normal and abnormal conditions. Bio-
effects, ALARA principle, pertinent in-vitro and in-vivo studies, exposure display indices, and maximum safe exposure levels will be incorporated into the didactic and laboratory classes. Laboratory experience will include further development of entry to mid-level scanning techniques and protocol on the human female obstetrical, embryonic, and fetal patient. Students will demonstrate the ability to perform entry to mid-level sonographic examinations using real-time sonographic equipment, Doppler and color Doppler equipment with various transducers. (Prerequisites: DMSD 2235) Lecture: 3 hours, Lab: 2 hours - Lab Fee: $20

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<tr>
<td>DMSD 2241</td>
<td>General Ultrasound Practicum I</td>
<td>3</td>
<td>Initial clinical scanning experience of the abdomen is covered. This course focuses on clinical application of standard protocols of the abdomen. Normal and abnormal anatomy are emphasized. Students begin to develop the critical thinking skills needed to correlate the examination with clinical history. Students must be competent in aortic and renal examinations at the completion of this class. Clinical education and competency occurs under the supervision of a Registered Sonographer. (Prerequisite: DMSD 2230) Clinical: 32 hours per week</td>
</tr>
<tr>
<td>DMSD 2242</td>
<td>General Ultrasound Practicum II</td>
<td>3</td>
<td>This practicum involves ongoing assessment of advanced clinical skills of the abdomen incorporating advanced identification of pathology and pathophysiology. Age specific scanning protocol are covered (infant to adult). Basic scanning protocol on male and female pelvis, thyroid, breast and scrotum is covered. Students must be competent on the complete scan of the abdomen at the completion of this class. Clinical education and student competency is under the supervision of a Registered Sonographer. (Prerequisite: DMSD 2241) Clinical: 32 hours per week</td>
</tr>
<tr>
<td>DMSD 2243</td>
<td>General Ultrasound Practicum III</td>
<td>3</td>
<td>This practicum involves ongoing assessment of advanced clinical skills of the male and female pelvis, thyroid, breast and scrotum incorporating advanced identification of pathology and pathophysiology. Basic obstetrical scanning protocol begins with a focus on normal anatomy of the maternal, embryonic, and fetal. Students must demonstrate critical thinking and competency in all areas of abdominal ultrasound, male and female pelvis and small parts and basic obstetrical examinations. Students must be competent on the complete scan of the female and male pelvis, small parts and basic obstetrical scanning at the completion of this class. Clinical education and student competency and verification is under the supervision of a Registered Sonographer. (Prerequisite: DMSD 2242) Clinical: 32 hours per week</td>
</tr>
<tr>
<td>DMSD 2245</td>
<td>Sonographic Anatomy</td>
<td>3</td>
<td>This course provides comprehensive coverage of the abdomen and superficial structures (small parts) and their sonographic appearance. Pertinent gross anatomy, sectional anatomy, physiology, pathology and pathophysiology are examined. Students relate specific anatomy to scanning plane and preferred scanning protocols. Lecture: 3 hours</td>
</tr>
<tr>
<td>DMSD 2250</td>
<td>Vascular Ultrasound I</td>
<td>4</td>
<td>This course provides students with the basic information specific to the performance of vascular Sonography. Anatomy, pathology and pathophysiology of the vascular system including arterial, cerebrovascular and venous systems are included. Scanning protocols for the upper and lower extremity are addressed. Bioeffects, ALARA principle, pertinent in-vitro and in-vivo studies, exposure display indices, and maximum safe exposure levels will be incorporated into the didactic and laboratory classes. Laboratory experience will include the use of plethysmography and real-time Sonography to evaluate and record the hemodynamics of arterial flow. The recognition of normal anatomy, basic pathology and pathophysiology are addressed. Students will demonstrate the use of plethysmography and real-time Sonography equipment with vascular transducers, Doppler and color Doppler to perform entry level vascular Sonography examinations. (Prerequisites: DMSD 2100) Lecture: 3 hours, Laboratory 2: hours - Lab Fee: $20</td>
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<tr>
<td>DMSD 2251</td>
<td>Vascular Ultrasound II</td>
<td>4</td>
<td>This course provides an in-depth of vascular ultrasound including pathophysiology, etiology of disease clinical findings and related symptoms. Age-specific testing is discussed. Related testing for cerebrovascular, upper and lower extremity venous circulation is covered. Scanning techniques and protocols are discussed in normal and abnormal conditions. Bio-effects, ALARA principle, pertinent in-vitro studies, exposure display indices, and maximum safe exposure levels will be incorporated into the didactic and laboratory classes. Laboratory experience will included further development of entry to mid-level scanning techniques and protocol on the cerebrovascular, upper and lower extremity venous circulation. Students will demonstrate the ability to perform entry to mid-level sonographic examinations using real-time sonographic equipment, Doppler and color Doppler equipment with various transducers. (Prerequisites: DMSD 2250) Lecture 3 hours, Lab 2 hours - Lab Fee: $20</td>
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<tr>
<td>Course Code</td>
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<tr>
<td>DMSD 2252</td>
<td>Advanced Vascular Ultrasound</td>
<td>4</td>
<td>This course will focus on the application of vascular ultrasound relating to abdominal vasculature and other specialty examinations such as aorta, renal transplant, TIPS procedure, transcranial Doppler, pseudoaneurysm, mapping and the use of ultrasound contrast agents. Interpretation skills on all testing in all disease states will be further developed. Scanning techniques, protocols and sonographic findings are discussed in the normal and abnormal conditions. Bioeffects, ALARA principle, pertinent in-vitro studies, exposure display indices, and maximum safe exposure levels will be incorporated into the didactic and laboratory classes. Laboratory experience will include advanced scanning techniques and protocol on aorta, renal transplant, TIPS procedure, transcranial Doppler, pseudoaneurysm and fistula. Students will demonstrate the ability to perform advanced level sonographic examinations using real-time sonographic equipment, Doppler and color Doppler equipment with various transducers. (Prerequisite: DMSD 2251) Lecture: 3 hours, Lab: 2 hours - Lab Fee: $20</td>
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<tr>
<td>DMSD 2253</td>
<td>Vascular Practicum I</td>
<td>3</td>
<td>This course provides students with initial clinical scanning experience for upper and lower extremity arterial examinations. Clinical application of standard protocols focuses on recognition of normal plethysmographic tracings, normal ultrasound vascular imaging and Doppler patterns. Students begin to develop the critical thinking skills required to correlate clinical history with exam requirements. Clinical education and clinical competency occurs under the supervision of a registered Vascular Sonographer. (Prerequisite: DMSD 2250) Clinical: 32 hours per week</td>
</tr>
<tr>
<td>DMSD 2254</td>
<td>Vascular Practicum II</td>
<td>3</td>
<td>This course provides students with initial clinical scanning experience for cerebrovascular and venous examinations. Clinical application of standard protocols focuses on normal vascular ultrasound imaging for cerebrovascular and venous examinations. Recognition of normal and abnormal images and Doppler patterns are included. Students use critical thinking skills to integrate clinical history with abnormal findings. Clinical education and clinical competency occurs under the supervision of a registered Vascular Sonographer. (Prerequisite: DMSD 2251) Clinical: 32 hours per week</td>
</tr>
<tr>
<td>DMSD 2255</td>
<td>Vascular Practicum III</td>
<td>3</td>
<td>This course provides students with advanced clinical scanning experience for upper and lower extremity arterial, venous, and cerebrovascular examinations. Final competency evaluation will occur along with the opportunity to perform abdominal vasculature and rare specialty examinations. Students use critical thinking skills to integrate clinical history to abnormal findings. Clinical education and clinical competency occurs under the supervision of a registered Vascular Sonographer. (Prerequisite: DMSD 2252) Clinical: 32 hours per week</td>
</tr>
<tr>
<td>DMSD 2260</td>
<td>Echocardiography I</td>
<td>4</td>
<td>This course provides students with a basic information specific to the performance of echocardiography. An overview of basic normal and abnormal anatomy, cardiac measurements, pathology and physiopathology will be covered. Bioeffects, ALARA principle, pertinent in-vitro and in-vivo studies, exposure display indices, and maximum safe exposure levels will be incorporated into didactic and laboratory classes. Laboratory will utilize sonographic equipment using two dimensional, M-Mode, Doppler and color Doppler for recognition of normal and abnormal anatomy, pathology and physiopathology with basic scanning techniques, and specific protocols in echocardiography with related findings. Cardiac windows will include parasternal and apical views, recognizing cardiac chambers, valves, walls and other structures. (Prerequisites: DMSD 2100) Lecture: 3 hours, Lab: 2 hours - Lab Fee: $20</td>
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<tr>
<td>DMSD 2261</td>
<td>Echocardiography II</td>
<td>4</td>
<td>This course expands on the material presented in Echocardiography I and continues to provide students with the knowledge necessary to capably perform a complete and diagnostic echocardiographic examinations using M-mode, 2-dimensional Doppler and color Doppler modalities. More complex anatomy and abnormal pathology will be addressed. Scanning techniques, specific protocols and echocardiographic findings will be discussed in relation to these more complex abnormalities including PLAX, RVIT, RVOT, PSAX views. The development of the ability to perform examinations in these areas will occur with classroom experience. using real-time equipment with transthoracic transducers and Doppler and color Doppler display modes. Bioeffects, ALARA principle, pertinent in-vitro studies, exposure display indices and maximum safe levels will be incorporated into the didactic and laboratory classes. (Prerequisite: DMSD 2260) Lecture: 3 hours, Lab: 2 hours. - Lab Fee: $20</td>
</tr>
<tr>
<td>DMSD 2262</td>
<td>Advanced Echocardiography</td>
<td>4</td>
<td>This course expands on the material presented in Echocardiography I and II, and continues to provide students with the knowledge necessary to capably perform a complete and diagnostic echocardiographic examination using M-mode, 2-dimensional Doppler and color Doppler</td>
</tr>
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</table>
modalities. More complex anatomy and abnormal pathology will be addressed including equation for aortic stenosis, mitral stenosis, pericardial effusion, hypertrophic cardiomyopathy, ischemic heart disease. Bioeffects, ALARA principle, pertinent in-vitro studies, exposure display indices and maximum safe exposure levels will be incorporated into the didactic and laboratory classes. Scanning techniques, specific protocols and echocardiographic findings will be discussed in relation to these more complex abnormalities. The development of the ability to perform examinations in these areas will occur with classroom experience using real-time equipment with transthoracic transducers and Doppler and color Doppler display modes. (Prerequisite: DMSD 2261) Lecture: 3 hours, Lab: 2 hours - Lab Fee: $20

DMSD 2263 - Echocardiography Practicum I
(3 Credits)
This practicum involves the observation and initial scanning experience of transthoracic adult cardiac sonographic examinations with emphasis on normal Two-dimensional, M-Mode and Doppler pattern recognition. Students are under the supervision of a Registered Echocardiographer. (Prerequisite: DMSD 2260) Clinical: 32 hours per week

DMSD 2264 - Echocardiography Practicum II
(3 Credits)
This practicum involves the clinical performance of transthoracic adult cardiac sonographic examinations with emphasis on normal Two-dimensional, M-Mode and Doppler pattern recognition. Students are under the supervision of a Registered Echocardiographer. (Prerequisite: DMSD 2263) Clinical: 32 hours per week

DMSD 2265 - Echocardiography Practicum III
(3 Credits)
This practicum involves the clinical performance of transthoracic adult cardiac sonographic examinations with emphasis on normal Two-dimensional, M-Mode and Doppler pattern recognition. Focus is on performing complete exams on patients with complex disease states. Students are under the supervision of a Registered Echocardiographer. (Prerequisite: DMSD 2264) Clinical: 32 hours per week

DMSD 2500 - Diagnostic Medical Sonography Seminar
(3 Credits)
This is an interactive course combining General Abdominal Students, Echocardiography students and Vascular Students. This provides students with an opportunity to discuss their scanning experience and review skills necessary for professional practice. Students prepare a research project on a topic in their area of specialty. This includes patient history, clinical findings, anatomy, pathology, scanning protocols, image interpretation, differential diagnosis and patient care. Students prepare and deliver an oral presentation to the class based on their research using power point or other appropriate methods. (Prerequisite: DMSD 2240 or DMSD 2262 or DMSD 2252) Lecture: 3 hours

ECON (Economics)

ECON 2030 - Principles of Microeconomics
(3 Credits)
(formerly ECON 2020) This course studies economic principles with emphasis on the price system, resource allocation, industrial organization, international trade and comparative economic systems. (Prerequisite: MATH at the 0101 level required, MATH 1200 recommended.) Lecture: 3 hours

ECON 2040 - Principles of Macroeconomics
(3 Credits)
(formerly ECON 2010) This course studies the fundamental principles, problems and policies of the American economic system. Major emphasis is placed on the institutions of the economy, supply-demand analysis, national income theory, monetary and fiscal policy and growth analysis. (Prerequisite: MATH at the 0101 level required, MATH 1200 recommended.) Lecture: 3 hours

EMER (Emergency Management)

EMER 1000 - Fundamentals of Emergency Management
(3 Credits)
This course provides information that enables persons entering the profession or expanding their roles to function effectively with a broad array of emergency management issues. The primary purpose is to provide an overview of the characteristics, functions, resources and capabilities of an integrated system and various emergency management services (EMA, fire, police / security, EMS, health care providers, etc.) work together effectively. Emphasis is placed on how this system is applied to all government levels, across the four phases and all functions of emergency
management. It includes the role of national, regional and local services in a variety of disasters. This course is intended for a broad audience including personnel in public safety, emergency management, health care facilities, and others having an interest in gaining a working knowledge of preparedness. Lecture: 3 hours

**EMER 1010 - Understanding and Responding to Terrorism**  
(3 Credits)  
This course provides the students with an understanding of defining terrorism. Students will learn about its origins and the development of using terror to influence public policy decisions. The history and changing nature of terrorist organizations will also be presented. Terrorist groups and structure will be discussed. Individual and community awareness of, preparing and responding to terrorist acts are presented. This course is intended for anyone interested in learning more about terrorism. Lecture: 3 hours

**EMER 1020 - Bioterrorism and Public Health Emergencies**  
(3 Credits)  
This course will focus on both naturally occurring disease outbreak and bioterrorist events of the past and the implications of these events for the future. Key elements of emergency disaster planning will include surveillance, mass immunization and public information campaigns. This course could be beneficial to any student in the health science programs. Lecture: 3 hours

**EMER 1030 - Disaster Response Operations and Management**  
(3 Credits)  
This course focuses on the principles that promote effective disaster response operations and management. The nature of disasters, the context of U.S. response operations and the roles and responsibilities of various emergency management related organizations are examined. Myths and realities of human behavior in catastrophic events as well as divergent approaches to disaster response operations (e.g. command and control vs. networking / problem solving) are reviewed. The importance of providing an effective response for the affected population is discussed. This course also examines specific functions relating to flood, hazardous materials and terrorist incidents. Various problems associated with response operations are identified. Incident Command Systems and their interaction with emergency operations center are emphasized. The role of technology and mutual aid agreements are discussed (Prerequisite: EMER 1000) Lecture: 3 hours

**EMER 1040 - Managing the Psychological Impact of Terrorism and Disasters**  
(3 Credits)  
This course provides a broad overview of the causes, interventions and treatments of psychological trauma in the civilian and emergency response population. The causes looked at include, natural disasters, terrorist attacks and mass casualty or mass fatality incidents. The interventions and treatments are illustrated for the student, for both the short and long-term recovery of the victims of this trauma, using real life incidents. Lecture: 3 hours

**EMER 1050 - Disaster Training and Exercise Management**  
(3 Credits)  
This course is designed to provide the student with the understanding of the training and exercise requirements of Emergency Management. It will include how training and exercising plays a critical role in preparing a community or company for a disaster. Students will develop an Exercise Program and test part of that program with an actual exercise. The students will then develop an improvement plan from the lessons learned from that exercises. This course is intended for a person who would have an active role in emergency preparedness for an organization. Lecture: 3 hours

**EMER 2010 - Disaster Resource Management**  
(3 Credits)  
This course is designed to provide the student with an understanding of resource management in the context of emergency management. Coordinating of resources before, during and after a disaster is critical to alleviate pain and suffering of the victims of disaster. This course will provide the student with the skills needed to identify and manage those resources effectively. Students will examine the elements comprising incident logistics and how those elements integrate into the overall incident response and recovery process. Lecture: 3 hours

**EMER 2020 - Emergency Planning**  
(3 Credits)  
This course is designed to provide the student with an understanding of emergency planning in the world of emergency management. The Emergency Manager is tasked with the responsibility of developing Emergency Plans for the community or organization they represent. These plans may make the difference in saving lives and alleviate pain and suffering from a disaster. This course will provide the student with the skills needed to develop those plans effectively. This course is intended for a student who may become actively involved in emergency planning or work within a plan in the emergency management setting. Lecture: 3 hours
EMER 2030 - Professional Development in Emergency Management
(3 Credits)
This course is designed to allow the student in the emergency management program to take the skills that they have acquired in the program and mesh them with the skills they learn in this course; Emergency Communication, Problem Solving, Decision Making and Leadership. This course will prepare the student to enter into the emergency management field or pursue a higher degree. Lecture: 3 hours.

EMER 2500 - Practicum in Emergency Management
(3 Credits)
The practicum in Emergency Management provides the student with an opportunity to use the knowledge they have learned in the program and put it into practical use in the field of emergency management. By placing the student at an internship site that works in the various types of disaster preparedness and response, the student will be provided with real-life experience. (Prerequisite: EMER 1000, EMER 1030, EMER 2010, EMER 2020 or permission of the instructor) Lecture: 1 hour, Lab: 6 hours

ENGL (English)

ENGL
(english)
Courses by subject area:
ESL COURSES: ENGL 0305, 0312, 1070, 1080, 1090, 1120, 1130, 1300
READING: ENGL 0700, 0850, 0890
WRITING: ENGL 0250, 0500, 1005, 1010, 1400, 1410, 1430, 2010, 2015, 2100, 2310
LITERATURE: ENGL 1020, 1030, 1040, 1200, 1210, 1220, 1230, 1240, 1250, 1260, 1270, 1280, 1290, 1360, 1370, 2020, 2030, 2040, 2050, 2200, 2210, 2230, 2250, 2270, 2310

ENGL 0250 - Compensatory Writing Skills
(3 Credits)
This writing course is for students who need to learn and/or review paragraph form and basic sentence skills: parts of speech, punctuation, capitalization, and sentence formation. By writing paragraphs, students will demonstrate their ability to plan, organize, and express ideas effectively and in grammatically correct sentences. (Prerequisite: English Placement Exam) Lecture: 3 hours

ENGL 0305 - Basic ESL Reading
(3 Credits)
This course is for students who need to strengthen foundational reading skills in English. Interacting with various text styles, students develop fluency, vocabulary, and comprehension strategies. (Prerequisite: Appropriate ESL reading score placement.) Lecture: 3 hours - Lab Fee: $20

ENGL 0312 - English as a Second Language: Reading I
(3 In-house Credits*)
This course is designed to improve the vocabulary knowledge and reading comprehension of students speaking English as a second language. The content includes such college reading skills as developing word knowledge, identifying main ideas, locating important details, and applying basic study strategies. Prerequisite: Appropriate ESL reading score placement or successful completion of ENGL 0305 AND successful completion of ENGL 1070 or placement into ENGL 1080.

ENGL 0500 - Basics of Composition
(3 Credits)
This course provides a comprehensive review of skills required in college-level writing courses including grammar usage, sentence variety, paragraph development, critical reading and thinking, brief essays, and research-paper elements. Prerequisite: ENGL 0250 with grade of C or better, appropriate placement score, or permission of instructor. Lecture: 3 hours

ENGL 0700 - Essential Reading Skills
(3 Credits)
This course is for students who need to build a foundation for college reading by mastering the skills that underlie successful reading. Instruction focuses on vocabulary development, word analysis, reading rate and accuracy, as well as literal reading comprehension. (Prerequisite: Appropriate test score or permission of instructor) Lecture: 2 hours; Lab: 1 hour - Lab Fee: $20
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<tr>
<th>Course Code</th>
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<tr>
<td>ENGL 0850</td>
<td>Basic College Reading</td>
<td>3</td>
<td>This course teaches the reading skills essential for success in college and everyday life. It focuses on the strategies needed for developing vocabulary, as well as strategies for improving comprehension and retention of college textbook material. In addition, a novel is required reading. (Prerequisite: Successful completion of ENGL 0700, appropriate test score or permission of instructor) Lecture: 2 hours; Lab: 1 hour - Lab Fee: $20</td>
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<tr>
<td>ENGL 0890</td>
<td>Critical Reading for College Success</td>
<td>3</td>
<td>In this course the student develops critical reading and thinking skills that are essential for college and workplace success. Focus is on building an enhanced vocabulary, as well as examining author's purpose and point of view, drawing inferences and applying advanced comprehension strategies. In addition, a work of nonfiction is required reading. (Prerequisite: Successful completion of ENGL 0850, appropriate test score or permission of instructor.) Lecture: 2 hours, Lab: 1 hour - Lab Fee: $20</td>
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<tr>
<td>ENGL 1005</td>
<td>College Writing</td>
<td>3</td>
<td>This course focuses on the writing process: planning, organizing, developing, drafting, and revising. Course activities begin with paragraphs and progress to essays and include research documentation assignments. (Prerequisite: English placement exam, or completion of ENGL 0500 with a C or higher, or permission of instructor) Lecture: 3 hours. Completes the following requirement(s): humanities requirement (HUMN)</td>
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<tr>
<td>ENGL 1010</td>
<td>Composition I</td>
<td>3</td>
<td>Note: Composition I is recommended for all first-year students and required for many, depending on curriculum. The purpose of this course is to enable students to write fluent, accurate and effective essays, including research and documentation assignments. (Prerequisite: English placement exam or at least a C in ENGL 1005.) Lecture: 3 hours</td>
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<tr>
<td>ENGL 1020</td>
<td>19th Century American Literature</td>
<td>3</td>
<td>This survey course examines American literature of the 19th century, including consideration of its cultural and historical contexts. (Meets Literature elective and English concentration requirements.) Lecture: 3 hours</td>
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<tr>
<td>ENGL 1030</td>
<td>British Literature I</td>
<td>3</td>
<td>This survey course in British literature from the early Anglo-Saxon period to the eighteenth century examines selected works in various genres in light of their historical and cultural contexts. (Meets Literature elective and English concentration requirements.) Lecture: 3 hours</td>
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<tr>
<td>ENGL 1040</td>
<td>World Literature to 16th Century</td>
<td>3</td>
<td>This course examines literature in translation of the Ancient World, Middle Ages, and Renaissance as a basis for understanding literature as an art and a reflection of its times, the humanities, and the modern world. (Meets Literature elective and English concentration requirements.) Lecture: 3 hours</td>
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<tr>
<td>ENGL 1070</td>
<td>English as a Second Language I</td>
<td>6</td>
<td>This course is the first in the sequence of academic English-as-a-Second Language offerings at the college. It is designed for students who are pursuing academic studies at the college level. Prior knowledge of the English language is necessary. Grammar and sentence building in English are studied with sequential emphasis placed on listening, speaking, reading and writing. Outcomes of this course include ability to form several complete sentences regarding one topic. Students who have successfully completed this course will then take ENGL 1080. (Prerequisite: Recommendation following ESL placement testing) Lecture: 6 hours</td>
</tr>
<tr>
<td>ENGL 1080</td>
<td>English as a Second Language II</td>
<td>6</td>
<td>This course is a continuation of ENGL 1070 and is also designed for students pursuing academic studies at the college level. Listening and speaking continue to be areas of second language practice, with more emphasis on reading and writing skills. As an outcome, students will be able to form a coherent paragraph of eight to ten sentences. Students who have successfully completed this course will then take ENGL 1090. (Prerequisite: Successful completion of ENGL 1070 or recommendation following ESL placement testing) Lecture: 6 hours</td>
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<tr>
<td>ENGL 1090</td>
<td>Paragraph Writing in English as a Second Language</td>
<td>6</td>
<td>This course is designed to increase the writing performance of students of English as a Second Language. It will emphasize the writing process and advanced grammar as students progress from generating acceptable sentences to combining sentences to form paragraphs. In addition, students will be able to form a multiple-paragraph essay as an outcome of the course. Students who have successfully completed this course will then take ENGL 1300. (Prerequisite: Successful completion of ENGL 1080 or recommendation following ESL placement testing)</td>
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<tr>
<td>ENGL 1120</td>
<td>Speech and Articulation for Speakers of English as a Second Language</td>
<td>3</td>
<td>This course emphasizes correct pronunciation of the English language, particularly through practice of the International Phonetic Alphabet. In addition, course content includes syllable stress and intonation. Perhaps equally important, ESL students will refine their listening skills in rapid American English speech. (Prerequisite: Successful completion of ENGL 1070 or placement into ENGL 1080)</td>
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<tr>
<td>ENGL 1130</td>
<td>English as a Second Language: College Speaking &amp; Listening</td>
<td>3</td>
<td>This English for Academic Purposes class is designed to begin to prepare students who are not native speakers of English for academic success in U.S. college programs. It focuses specifically on speaking and listening skills for college study. Topics reflect those in typical introductory college courses. (Prerequisite: Successful completion of ENGL 1080 or placement into ENGL 1090)</td>
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<tr>
<td>ENGL 1200</td>
<td>Introduction to Literature</td>
<td>3</td>
<td>This course examines a variety of literary genres (fiction, nonfiction, poetry and drama) as expressions of the human desire to communicate philosophy, experience, and attitudes. Examples found in diverse literary cultures from ancient times to the present are the basis for reading, analyzing, and evaluating these forms of verbal expression. (Meets Literature elective and English concentration requirements)</td>
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<tr>
<td>ENGL 1210</td>
<td>Introduction to Film</td>
<td>3</td>
<td>This course provides an introduction to the tools of film analysis by examining how narrative, mise-en-scène, cinematography, editing, and sound create meaning in film. Film is also examined for its social, cultural, and ideological significance. Introduction to Film provides students with the background for further film studies. (Meets literature and English concentration requirements; Prerequisite: None is required, though a general introductory literature course, such as Introduction to Literature [ENGL 1200] or World Literature [ENGL 1040 and ENGL 2040] is recommended.)</td>
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<tr>
<td>ENGL 1220</td>
<td>Introduction to Poetry</td>
<td>3</td>
<td>The purpose of this course is to deepen the students' engagement with the metaphorical nature of language through understanding and enjoyment of poetry. The selection of poems focuses on what poetry means and does, what needs and desires poetry fulfills in its writers and readers, and the cultural contexts and conditioning that define poetry and place value on its existence. (Meets Literature and English Concentration requirement.)</td>
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<tr>
<td>ENGL 1230</td>
<td>Modern Literature</td>
<td>3</td>
<td>This one-semester survey course considers significant literature of the world from the turn of the twentieth century to the present. It examines many literary movements, including Modernism and Postmodernism, with emphasis on broadness of understanding and ability to interpret and evaluate texts. (Meets Literature elective and English Concentration requirements)</td>
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<td>ENGL 1240</td>
<td>Readings in the Novel</td>
<td>3</td>
<td>Several novels, significant in the time of their appearance as well as in retrospect, are read to develop a student’s understanding of their place in the genre, not only as the diverse expressions of their authors and mirrors of their particular historical contexts but as social, cultural, and political forces. (Meets Literature and English Concentration requirements.)</td>
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<td>ENGL 1250</td>
<td>Readings in the Short Story</td>
<td>3</td>
<td>This course considers the development and themes of the short story. Significant examples from diverse cultures and historical eras are analyzed and discussed. (Meets Literature elective and English Concentration requirements.) Lecture: 3 hours</td>
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<tr>
<td>ENGL 1260</td>
<td>Readings in Shakespeare</td>
<td>3</td>
<td>A number of major plays and sonnets by Shakespeare are analyzed in order to develop students' understanding of the works' dramatic, cultural and historical content, as well as various critical viewpoints. The plays are selected from the comedies, tragedies, and histories. (Meets Literature and English concentration requirement.) Lecture: 3 hours</td>
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<tr>
<td>ENGL 1270</td>
<td>Contemporary Drama</td>
<td>3</td>
<td>This course includes plays from Ibsen to the present. Emphasis is on changing approaches to theater as well as the social, cultural and philosophical implications in the representative plays. (Meets Literature and English concentration requirements.) Lecture: 3 hours</td>
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<tr>
<td>ENGL 1280</td>
<td>Dramatic Literature</td>
<td>3</td>
<td>This is a course in which historic and dramatic trends are viewed, including literary forms, the most important playwrights and socio-political effects on the dramatic literature of differing periods. (Meets Literature and English concentration requirements.) Lecture: 3 hours</td>
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<tr>
<td>ENGL 1290</td>
<td>African American Literature</td>
<td>3</td>
<td>This course traces the development and impact of African American writers from the era of slavery to the present by examining the unique experiences and challenges presented in their works. Representative poetry, fiction, nonfiction and drama of major writers are studied for their literary, sociological and historical significance. (Meets Literature and English Concentration requirements) Lecture: 3 hours</td>
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<tr>
<td>ENGL 1300</td>
<td>Composition I for Speakers of English as a Second Language</td>
<td>6</td>
<td>Students perfect their academic writing skills through a sequence of essay assignments, including a research project, with emphasis on rhetorical and grammatical issues particular to ESL. Students completing this course may take ENGL 1005 or 1010 as a follow-up course for elective credit as recommended by the instructor. (Prerequisite: ENGL 1090 or recommendation following ESL placement testing.) Lecture: 6 hours</td>
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<tr>
<td>ENGL 1360</td>
<td>Science Fiction</td>
<td>3</td>
<td>This course involves reading and analyzing various science fiction novels, short stories and occasionally films produced since the late 19th century. Emphasis is placed on understanding the influence science and technology have had on modern life and how that influence has been shown in literature. (Meets Literature and English concentration requirements.) Lecture: 3 hours</td>
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<tr>
<td>ENGL 1370</td>
<td>Literature of Imagination and Fantasy</td>
<td>3</td>
<td>This course examines fantasy as an enduring and ongoing part of humanity's literary heritage as seen through such examples as myth, fairy tale, gothic horror, and magical realism. As a literary form, fantasy not only broadens the reader's understanding of what literature is and what it does, but it explores the fundamentals of literature to suggest unusual and innovative ways of looking at the world. (Meets Literature and English concentration requirements.) Lecture: 3 hours</td>
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<tr>
<td>ENGL 1400</td>
<td>Business Writing for Office Professionals</td>
<td>3</td>
<td>Note: This course is for Administrative Office Technology program students ONLY. This one-semester course includes a concentrated review of grammar and punctuation; correspondence (letters and memos); philosophy, psychology and standards in business communication; and brief exposure to informal and formal reports. Lecture: 3 hours</td>
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ENGL 1410 - Business Writing
(3 Credits)
This one-semester course includes philosophy, psychology, and standards in business communication; written and digital correspondence (letters, memos, and e-mails); and informal and formal report writing. Basic knowledge of Microsoft Word is strongly recommended. Meets general education requirements. Prerequisite: None, although ENGL 1005 and ENGL 1010 is strongly recommended.

ENGL 1430 - Creative Writing
(3 Credits)
This course is an introduction to the craft of writing in its various forms including the personal essay, fiction, poetry and drama. Students produce work in these genres and develop critical objectivity through analysis of their creations as well as those of their classmates and published writers. (Meets English concentration requirement.) (Prerequisite: ENGL 1010. However, ENGL 2010 or ENGL 2015, is also recommended) Lecture: 3 hours

ENGL 2010 - Composition II
(3 Credits)
This course is an extension of Composition I (ENGL 1010). While in Composition I the emphasis is upon short expositional pieces, students of Composition II concentrate on development of the central idea in writing essays and, wherever appropriate, in descriptive and narrative prose. Course work includes writing at least one paper based on reading and research. Literature of an appropriate type is read and analyzed in terms of rhetorical statement, structure and device. (Meets English concentration requirements.) (Prerequisite: ENGL 1010 with a grade of C or better or a comparable basic level college course in rhetoric.) Lecture: 3 hours

ENGL 2015 - Advanced Writing for the Liberal Arts
(3 Credits)
Continuing Composition I (ENGL 1010) for students of liberal arts, this course is concerned with writing about ideas generated by books and articles. The aim of Composition II for Liberal Arts is to produce fully developed essays based on reading and research such as would be assigned in liberal arts courses in any college. A research paper or a series of short source papers, some on the same subject, is the major requirement of the course. (Prerequisite: ENGL 1010 with a grade of C or better or a comparable basic level college course in rhetoric.) Lecture: 3 hours

ENGL 2020 - 20th-Century American Literature
(3 Credits)
This survey course examines American literature of the twentieth century, including consideration of its cultural and historical contexts. (Meets Literature elective and English Concentration requirements.) Lecture: 3 hours

ENGL 2030 - British Literature II
(3 Credits)
This survey course in British literature from William Blake to the present examines selected works in various genres as representative of their historical and cultural contexts. (Meets Literature elective and English Concentration requirements.) Lecture: 3 hours

ENGL 2040 - World Literature from 16th Century
(3 Credits)
This course examines literature of the world in translation from the Enlightenment to the present in order to understand literature as a reflection and expression of its times, the humanities, and the modern world. (Meets Literature elective and English Concentration requirements.) Lecture: 3 hours

ENGL 2050 - Introduction to Literary Theory and Criticism
(3 Credits)
Although open to all, this course is particularly designed for English concentration students to deepen skills in critical thinking and writing about all genres of literature. Focus is placed on close textural reading, using appropriate literary terminology and applying various methodologies to analyze literature. In addition to class discussion and collaborative activities, students will engage in literary research and MLA style documentation. (Meets Literature and English concentration requirements.) (Prerequisites: ENGL 1010 and any 1000-level literature course.) Lecture: 3 hours

ENGL 2100 - Technical Writing
(3 Credits)
This course focuses on producing concise, clear, credible and objective reports, letters, memoranda and related workplace writing, including appropriately documented research. The course promotes writing that demonstrates and awareness of the reader. Basic knowledge of Microsoft Word is strongly recommended. (Prerequisite: Placement in Composition I or completion of College Writing with a grade of C or better.) Lecture: 3 hours
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<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
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<tbody>
<tr>
<td>ENGL 2200</td>
<td>Children's Literature</td>
<td>3</td>
<td>This one-semester course introduces the student to the range of children's literature from early folklore to current selections. Students read widely to develop discrimination in the selection of books for children of pre-kindergarten through eighth grade school levels, as well as develop the ability to interpret criteria and evaluate the different genres of literature suited for children. (Meets Literature and English concentration requirements.) Lecture: 3 hours</td>
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<tr>
<td>ENGL 2210</td>
<td>Special Topics in Film</td>
<td>3</td>
<td>This course is meant to enable students who have achieved the basic understandings of film study and interpretation in Film as Literature I to continue their examination of the medium. They will pay special attention to various film genres, to the work of particular directors and to aspects of film theory. (Prerequisite: ENGL 1210 or permission of instructor, Lecture: 3 hours)</td>
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<tr>
<td>ENGL 2230</td>
<td>Contemporary Literature</td>
<td>3</td>
<td>This course examines significant works of the last decade chosen from a rich variety of authors, topics, and cultures. Selected genres may include, but are not limited to, poetry, fiction, nonfiction, film, and literature of the performing arts. (Meets Literature and English Concentration requirements.) Lecture: 3 hours</td>
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<tr>
<td>ENGL 2250</td>
<td>Adolescent Literature</td>
<td>3</td>
<td>Students read widely from a variety of literary genres and texts that are aimed at an adolescent audience. Focus is on methods for interpreting and evaluating adolescent literature. (Meets literature and English Concentration Requirements.) Lecture: 3 hours</td>
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<tr>
<td>ENGL 2270</td>
<td>Multicultural American Literature</td>
<td>3</td>
<td>This course examines issues of race, ethnicity, and cultural identity in literature by writers of diverse backgrounds, including—but not limited to—African American, Asian American, Hispanic American, and Native American. Representative pieces of multicultural poetry, fiction, nonfiction, and drama are studied for their literary, sociological, and historical significance. (Meets literature and English concentration requirements.) Lecture: 3 hours</td>
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<tr>
<td>ENGL 2310</td>
<td>Introduction to Screenwriting</td>
<td>3</td>
<td>This course introduces students to techniques that the screenwriter uses to develop characters, construct scenes, structure plot, and follow screenplay format. Students will analyze films and screenplays, write original scenes, and work on an original screenplay. Lecture: 3 hours</td>
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<tr>
<td>ENGR 1020</td>
<td>Introduction to Engineering &amp; Technology</td>
<td>3</td>
<td>This course introduces students to various tools and problem solving skills common to most fields of engineering and technology. The course will emphasize developing both individual critical thinking, and collaborative problem solving skills, essential in today's world of technology. Students will learn the basics of the engineering design process of product design, testing and evaluation. As teams, students will apply this process to complete a semester-long project that will involve practical problem solving, computer simulation and physical product fabrication. To assist in the project analysis, documentation and presentation, students will develop skills with spreadsheets, word processing and presentation software. (Prerequisite: MATH 0100 or higher or permission of instructor) Lecture: 2 hours, Lab: 2 hours - Lab Fee: $20</td>
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<tr>
<td>ENGR 1030</td>
<td>Engineering Graphics</td>
<td>3</td>
<td>This course studies the theory of orthographic projection and the principles of descriptive geometry. Students construct exact drawings of three-dimensional objects including auxiliary views, cross-sections, dimensioning, pictorial drawings and free-hand sketching. Lecture: 2 hours, Lab: 3 hours</td>
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<tr>
<td>ENGR 2050</td>
<td>Engineering Mechanics Statics</td>
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<td>This is a basic course built around solutions and applications of Newton's laws of forces in equilibrium. Systems of particles and rigid bodies are studied using standard scalar and vector methods. (Prerequisite: MATH 2141 or equivalent) Lecture: 4 hours</td>
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<tr>
<td>ENGR 2060</td>
<td>Engineering Mechanics Dynamics</td>
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<td>This course covers the application of Newton's law of motion, to include kinematic and kinetic studies of the motion of systems of particles and rigid bodies, acted upon by unbalanced forces. (Prerequisites: ENGR 2050 and MATH 2142) Lecture: 4 hours</td>
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<td>ENGR 2150</td>
<td>Introduction to Electrical Engineering</td>
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<td>This basic course in electrical engineering includes a study of static, electric and magnetic fields, Coulomb's laws, capacitance and inductance, Gauss' Law, Ampere's Law, electrical current and voltage. (Prerequisites: MATH 2141 and PHYS 1100 or equivalent) Lecture: 3 hours</td>
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<td>ENGR 2151</td>
<td>Introduction to Electrical Engineering Lab</td>
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<td>Laboratory exercises reinforce the theory learned in the Introduction to Electrical Engineering course. Use of various electronic instruments to make measurements is an important part of the lab. (Prerequisite or Corequisite: ENGR 2150) Lab: 3 hours</td>
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<td>ENGR 2160</td>
<td>Introduction to Engineering Analysis</td>
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<td>This course introduces students to analytical methods employed in engineering problem solving using computer software. (Prerequisite: MATH 2141) Lecture: 1 hour, Lab: 2 hours</td>
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<tr>
<td>ENGR 2320</td>
<td>Digital Electronics</td>
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<td>This course studies logical building blocks and functional building blocks such as OR gates, AND gates, inventors, XOR gates, registers, counters, adders, D/A converters, A/D converters, decoders, encoders and binary multiplexers. Number systems and codes, arithmetic processes and memory devices are also covered. Input, output, memory, control and arithmetic functional units are developed using functional building-blocks. Note: Engineering students should consult department chair or academic advisor before enrolling. (Prerequisite or corequisite: MATH 2141) Lecture: 3 hours, Lab: 3 hours</td>
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<tr>
<td>ENGR 2520</td>
<td>Microprocessor &amp; Microcomputers</td>
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<td>This hands-on course familiarizes students with computer and microprocessor software and hardware. Computer architecture and interfacing with input and output devices is studied. Students develop an understanding of how the computer is used to control electronic and mechanical devices. (Prerequisite or corequisite: MATH 2141) Lecture: 3 hours, Lab: 3 hours</td>
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<td>ENGR 2540</td>
<td>Mechanics of Materials for Engineering</td>
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<td>This is a basic study of the theory of stresses and strains in beams, columns and thin-walled cylinders including combined bending and direct stresses. (Prerequisite: ENGR 2050) Lecture: 3 hours</td>
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<td>ENGR 2620</td>
<td>Linear Electrical Systems and Circuit Theory for Engineers</td>
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<td>This course offers a study of electrical linear circuit theorems, Kirchhoff's Laws, DC resistive networks, dependent sources, natural and forced response of first and second order circuits, sinusoidal steady-state response and AC power. (Recommended: Calculus background; Prerequisite: ENGR 2150; Prerequisite or Corequisite: MATH 2990) Lecture: 4 hours</td>
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<td>ENGR 2621</td>
<td>Linear Circuits Lab</td>
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<td>Topics covered in this lab include: DC measurements, natural and step response of first and second order circuits, AC measurements, impulse and frequency response and operational amplifiers. (Prerequisite or Corequisite: ENGR 2620) Lecture: 1 hour, Lab: 3 hours - Lab Fee: $20</td>
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ENGT (Engineering Technology (ENGT))

ENGT 1060 - AutoCAD (Basic)
(2 Credits)
This course develops the fundamental skills in drawing, presenting and interpreting ideas, shapes, and concepts using the graphic language of AutoCAD. This course provides practice in the use of Computer Aided Drafting, a technology that has impacted the way many products are designed and produced. Students will explore all the necessary commands needed to produce orthographic drawings and construction type drawings using micro-computers. Lecture: 1 hour, Lab: 2 hours - Lab Fee: $10

ENGT 1090 - Solid Modeling (Solid Works)
(2 Credits)
This course teaches students the fundamentals of "solid works" and the technique of three-dimensional design. Lecture: 2 hours, Lab: 1 hour - Lab Fee: $20

ENGT 2090 - Advanced Solid Modeling
(3 Credits)
Advanced Solid Modeling will enable the student to work with advanced designs and assemblies. This will include mold design, sheet metal design, weldments, and industry specific design tools. The students will learn to use COSMOSWorks to study deflections and load stress on their designs. Other applications would include rendering in PhotoWorks and animation techniques. (Prerequisite: ENGR 1030) Lecture: 2 hours, Lab: 2 hours

ETCN (Engineering Tech.-CNC)

ETCN 1000 - Mechanical Industrial Design
(3 Credits)
This course is designed to familiarize the student with components used in mechanical systems. The student will learn how to select components based on system requirements and how to implement the component into the system. Attention is given to currently manufactured components and the use of the manufacturers sizing and mounting procedures. More specifically the sizing and fitting of these elements based on function, power requirements, life and cost. (Prerequisite: ENGR-1030 AND Prerequisite or corequisite: ETCN-1100) Lecture: 2 hours, Lab: 2 hours - Lab Fee: $20

ETCN 1100 - Blueprint Reading and the Machinery's Handbook
(3 Credits)
Detailed manufacturing part prints are the graphical representation of what the finished product should look like and the specifications required to make it. The Machinery’s Handbook is the encyclopedia used in the manufacturing environment; a storehouse of practical information used to assist not only CNC machinists, but also quality control personnel, tool or mold makers, machine designers and mechanical engineers to solve a list of manufacturing problems. This course uses these two resources to teach students how to interpret the language of blueprints and find the required information regarding machining processes such as speeds, feeds, cutting tool specifications and limits. The focus is on problem-solving skills and strategies. Lecture: 2 hours, Lab: 2 hours - Lab Fee: $20

ETCN 1200 - Precision Measurement and Geometric Dimensioning and Tolerance
(3 Credits)
This course is designed to develop the student's ability to interpret Geometric Dimensioning and Tolerancing (GD&T) language and accurately and precisely measure manufactured parts and assemblies using micrometers, digital calipers and dial indicators. Language and systems of measurement and GD&T are studied and discussed. Basic handheld comparison tools, precision gages, scaled and precision measuring tools are used to accurately measure parts for both size and geometric form. Students also learn about sine bar use and setup, gage blocks care, surface plate preparation and part fixturing. The feature control frame the geometric symbols in the application of the tolerances are also studied. (Prerequisite or corequisite: ETCN 1100.) Lecture: 2 hours, Lab: 2 hours - Lab Fee: $20

ETCN 1300 - CNC Machining I
(3 Credits)
This course introduces students to CNC programming using flow charts and process operations planning. Fundamental word address (G and M code) industrial standards, practices and terms used in industry are covered. Machine tool axis motion, methods of work piece setup cutting tool, selection cutting tool compensation and canned cycles are reviewed. Students produce manually written part programs for three axis-milling machines and router, and two axis lathes. Review of blueprints, Geometric Dimensioning and Tolerancing (GD&T) terminology, and right angle trigonometry are covered. Students will set-up and operate CNC milling machines and lathes to make assigned parts. (Prerequisite: ENGR 1030; ETCN 1100; ETME 1020) Lecture: 1 hour, Lab: 4 hours - Lab Fee: $20
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<tr>
<td>ETCN 2000</td>
<td>Advanced Machining Skills</td>
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<td>This course is designed to expose the manufacturing technology certificate and degree students to many different computer-controlled machining processes: machine tool set up, methods, and machining operations. This course will introduce additional machining processes and enhance the technical skills and theories learned in all the other manufacturing certificate courses. The students will acquire the fundamental knowledge and the technical skills needed to become technically proficient. Machining processes include electrical discharge machining, plasma cutting and computer-controlled welding. (Prerequisites: ENGR 1030; ETME 1020; ETCN 1100, 1200, 1300, 2100 and 2200) Lecture: 2 hours, Lab: 3 hours - Lab Fee: $20</td>
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<tr>
<td>ETCN 2100</td>
<td>Computer Aided Manufacturing</td>
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<td>In this seven-and-a-half week course, students study the essentials of a computer-aided manufacturing system (CAM). This course uses MasterCam, which is an industrial software application, used to draw and create a tool path for CNC machining applications such as milling and turning. Students use CAM software in conjunction with computer-aided drawing files (CAD) to create machined features from a piece of stock material. Topics include using MasterCam to select the correct CNC machine tool, draw solid models, organize and optimize machining operations and time. Lecture: 1 hour, Lab: 4 hours - Lab Fee: $20</td>
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<td>ETCN 2200</td>
<td>CNC Machining II</td>
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<td>This course is a continuation of the CNC Machining I and Computer-Aided Manufacturing courses. In this course, students will use MasterCam to create toolpaths and code for 3 and 4 axis CNC milling machines and 2 axis CNC lathes. ISO codes will also be written for the 5 axis wire EDM using MasterCam as well as imported files from SolidWorks and AutoCAD. Additionally, students will set up and machine assigned parts on 3 and 4 axis CNC mills, 2 axis CNC lathes and the 5 axis wire EDM. (Prerequisites: ETCN 1300 and 2100) Lecture: 1 hour, Lab: 4 hours - Lab Fee: $20</td>
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<td>ETCN 2250</td>
<td>Lean Manufacturing</td>
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<td>This course is designed to examine Lean Manufacturing and its strategies, using case studies and specified designed Lean labs. Lean tools such as Kaizen events and Value Stream Mapping (VSM) are the ideal tools to achieve breakthrough results. This course will focus on preparatory steps that must be taken to ensure achievable, measurable goals and team success. Students will learn how to identify and eliminate non-value-added steps, and will learn how performing small incremental steps will improve the company’s quality, productivity, and most importantly the bottom line. The class will focus on how to sustain the results attained during Kaizen events over the long-term. The value of the 5s Systems, Set-Reduction and Total Productive Maintenance will be studied. (Prerequisite: ETME 1020) Lecture: 1 hour, Lab: 2 hours</td>
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<td>ETCN 2300</td>
<td>3D-Modeling and Prototyping</td>
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<td>This course will study the types of Additive Fabrication (AS) or Additive Freeform Fabrication, as it is called in the industry. Topics include the history of Additive Manufacturing, the types of new generation machines used for A.M., and the types of materials, binders, and substrates used with this technology. Other topics include the size constraints, design constraints, and advantages and applications of this technology. The student will use SolidWorks and MasterCam as the manufacturing software to design and produce parts in the manufacturing lab using the Dimension SST 1200es CNC machine tool. (Prerequisites: ENGR 1030; ENGT 2090; ETCN 1300) Lecture: 2 hours, Lab: 2 hours - Lab Fee: $20</td>
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<td>ETCN 2350</td>
<td>Automated Machining Technology</td>
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<td>Key skills are needed for the growing 21st century advanced manufacturing workplace: wire EDM machining, 4 Axis milling, metal selection and heat treatment, plasma-torch technology, and robot integration. This course emphasizes set-up and safety in the work environment. This course will expand upon skills learned in CNC Machining I (ETCN 1300), Computer-Aided Manufacturing (MasterCam) (ETCN 2100), and Engineering Graphics (ENGR 1030). Students will use blueprint reading skills, machine processes skills and information from Machinery’s Handbook to properly set up and operate advanced-level machines with confidence. (Prerequisite: ENGR 1030; ETME 1020; ETCN 1300.) Lecture: 1 hours, Lab: 3 hours - Lab Fee: $20</td>
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<tr>
<td>ETCN 2360</td>
<td>Manufacturing Quality Control</td>
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<td>This course will give an elementary approach to the statistical techniques used in the quality control of manufactured parts. Topics covered include an introduction to quality concepts and statistical process control (SPC); variation and statistics; the organization of data; variables control charts; metrology; probability and the normal distribution; attribute (go/no go) charts; control chart interpretation, and gage capability. This course will</td>
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also include a lab component using software along with actual machined parts to develop the proper control charts and perform other quality control functions. Lecture: 2 hours, Lab: 2 hours

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<tr>
<td>ETCN 2400</td>
<td>Industry and OSHA-10 Seminars</td>
<td>(1 Credit)</td>
<td>Working safely and a safe working environment are the highest priorities. Students will gain an understanding of OSHA and important details concerning a safe workplace, and will earn the OSHA 10-hour card. The OSHA 10-hour card shows employers the student has had a good introduction to the safety concerns foremost in today’s general industry workplace. This course will also provide networking opportunities with advanced manufacturing companies using the skills learned and developed in the certificate and A.S. degree programs. Industry leaders visit students in the classroom, describing the growing advanced manufacturing market, and how their skills can be integrated. Lab: 2 hours - Lab Fee: $10</td>
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<tr>
<td>ETCN 2500</td>
<td>Computer Numerical Control (CNC) Practicum/Capstone</td>
<td>(4 Credits)</td>
<td>This course gives students an opportunity to apply knowledge and skills learned in the CNC certificate program in an industrial setting. Students spend 140 hours in a manufacturing environment setting up and operating CNC machine tools under the guidance of full-time employees. This class also has a two-hour meeting requirement which is used to develop a portfolio outlining the types of working experiences acquired in the practicum. Students keep a working journal during the semester which will be used to assist in building their portfolio to chronicle their experience in order to address any problems or concerns that may arise. The Engineering Department provides assistance in matching students in practicum settings. (Prerequisite: Completion of ETCI - Introduction to CNC Manufacturing Certificate; ETEE 1800 or ETCN 2100 and ETCN 2200; ETCN 2300) Lecture: 2 hours, Practicum: 140 hours - Lab Fee: $20</td>
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<tr>
<td>ETEE 1050</td>
<td>Introduction to Electromechanical Systems</td>
<td>(3 Credits)</td>
<td>The course will introduce the student to the nature of electricity and magnetism, and applications of practical electrical and electromechanical devices and systems. Students will study electrical laws in basic DC and AC circuits, and the behavior of passive and active circuits and components. Students will also be introduced to basic electromechanical components such as relays, switches, motors and generators. The course will emphasize a systems approach to utilizing and testing electromagnetic technology. Both hands-on labs and software simulation will be used to develop an understanding of combining components to form complex systems and the techniques to evaluate the performance of electromechanical systems. (Prerequisite: MATH 0100) Lecture: 2 hours, Lab: 2 hours - Lab Fee: $20</td>
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<tr>
<td>ETEE 1100</td>
<td>Engineering Applications of Computers (Formerly ENGT 1100)</td>
<td>(3 Credits)</td>
<td>Students will be introduced to microprocessor and microcontroller architectures. Machine, assembly, and high-level languages will be examined. A combination of assembly and a high-level language will be applied to solving problems using a popular microcontroller development environment and target hardware system. Data and graphic information types and formats will be described and used in programs. Acquiring data from internal and external sources, communicating across networks, and directing output to displays and other external interfaces will also be explored. Student lab activities include developing and debugging programs used to control electromechanical devices, measuring operating parameters, collecting data, and displaying information. (Prerequisites: MATH 1179; ETEE 1800) Lecture: 2 hours, Lab: 2 hours.</td>
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<td>ETEE 1120</td>
<td>Electronic Devices &amp; Circuits (Formerly ETEK 1120)</td>
<td>(3 Credits)</td>
<td>This course is a study of the basic laws of electronic circuit theory applied to electronic devices with emphasis on solid state devices, including the theory and operation of semi-conductor diodes and transistors. Operational amplifiers, oscillators, active filters and switching circuits are emphasized and analyzed in laboratory experiments. Analysis techniques include the use of Bode plots and computerized experiments using circuit simulation software in addition to bench work wiring up circuits that are analyzed and then tested. (Prerequisite: ETEE 1500) Lecture: 2 hours, Lab: 2 hours - Lab Fee: $20</td>
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<tr>
<td>ETEE 1500</td>
<td>Electrical Systems I (Formerly ETEK 1060)</td>
<td>(3 Credits)</td>
<td>This course covers AC and DC circuits. Analysis techniques are taught and implemented in laboratory experiments using physical components, instruments, and computer analysis. Power transformers and single phase/three phase power distribution is introduced. (Prerequisite: ETEE 1050) Lecture: 2 hours, Lab: 2 hours - Lab Fee: $20</td>
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<td>ETEE 1800</td>
<td>Introduction to Digital Systems</td>
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<td>The student will learn about digital logic as implemented with hardware, ROM logic/look up tables, and programmable devices. The basic format and architecture will be introduced with an analysis of several representative products including specifications. Basic programming techniques using Hardware Description Languages will be introduced to allow a student to create simple circuits for evaluation. Instruction sets, programming languages and basic programming techniques will be reviewed. Parallel buses, common parallel buses, serial interfaces and Ethernet interfaces will be covered. The data conversion process covering sampling theory and analog-to-digital methods will be examined. Instrumentation will include the use of oscilloscopes, logic analyzers, and pulse generators. The course will also include a brief introduction to programming languages such as assembly, Visual BASIC and C. (Prerequisite: MATH 0100 with a grade of &quot;C&quot; or better) Lecture: 2 hours, Lab: 2 hours</td>
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<tr>
<td>ETEE 2390</td>
<td>Electrical Power Systems (Formerly ETEK 2390)</td>
<td>3</td>
<td>Three phase delta/wye and single phase power circuits are analyzed. Measurement with instrument transformers and two/three wattmeters are emphasized and used in laboratory experiments. AC and DC motors and generators, stepper motors and universal motors are studied, with related laboratory experiments. Emphasis is on operation, measurement of characteristics and control. Transformers, circuit breakers, relays and programmable control devices are covered, and also the basics of power transmission lines. Technology associated with smart-grid systems will be introduced. (Prerequisite: ETEE 1500) Spring only. Lecture: 2 hours, Lab: 2 hours - Lab Fee: $20</td>
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<td>ETEE 2500</td>
<td>Electrical Systems II (Formerly ETEK 2370-Technical Capstone Project)</td>
<td>3</td>
<td>Switching devices including SCRs, TRIACS, DIACS, UJT, and their application in power and motor control circuits are covered in this course. The application of transducers as sensors in industrial control systems is also covered. Use of programmable controllers in industrial control of processes and power circuits is emphasized. The laboratory experiments include SCR and switching devices in the control of power circuits; application of sensors for measurement of heat, position, stress, light and pressure; operation and programming of programmable controllers; measurements in single phase and three phase -Y power circuits, and the operation of motors. Students will apply material learned in this course and in previous courses to a capstone project. (Prerequisite: ETEE 1500) Lecture: 2 hours, Lab: 2 hours - Lab Fee: $20</td>
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<tr>
<td>ETME 1010</td>
<td>Robotics and Control</td>
<td>3</td>
<td>This course provides an introduction to the field of robotics and automation. Topics include the different robot classification systems and robot arm configurations; robot end effectors, robot operating systems and kinematics. This course also introduces basic concepts of automation and artificial intelligence. Various concepts of control are introduced such as programmable logic controllers. Equipment justification is also introduced. Students will program and operate two types of robots using the robots' programming languages. Lecture: 2 hours, Lab: 2 hours</td>
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<tr>
<td>ETME 1020</td>
<td>Introduction to Manufacturing Processes</td>
<td>3</td>
<td>This course provides students with insight and practical experiences in the set-up and operation of basic machines and measuring tools used in manufacturing processes. Significant emphasis is placed on dealing safely with high power machinery, materials, laboratory clothing and machine maintenance. Turning, milling, grinding, drilling and precision measurement are covered, developing students’ ability to fabricate mechanical components using traditional machining. Students learn the limitations of traditional machining and prepare for understanding advanced manufacturing technology. Lecture: 1 hour, Lab: 4 hours - Lab Fee: $20</td>
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<tr>
<td>ETME 1500</td>
<td>Mechanical Systems I (Formerly MEET 2830)</td>
<td>3</td>
<td>This course is designed to familiarize the student with components used in mechanical systems. The student will learn how to select components based on system requirements and how to implement the component into the system. Attention is given to currently manufactured components and the use of the manufacturer's sizing and mounting procedures. More specifically, the sizing and fitting of these elements based on function, power requirements, life and cost. (Prerequisites: MATH 1179; ENGR 1020 and 1030; ETEE 1050) Lecture: 2 hours, Lab: 2 hours - Lab Fee: $20</td>
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</table>
| ETME 1510    | Engineering Mechanics Technology (Formerly MEET 1510)                      | 3       | This course is for students in the Engineering Technology Systems programs. Students are introduced to basic concepts in engineering mechanics: statics, dynamics, and the strength of materials, with a focus on technical application of the fundamentals to mechanical design. Newton’s Laws are studied with emphasis on equilibrium and motion. Realistic problems are analyzed through the use of vector mechanics. Kinematic and kinetics are
investigated to a level sufficient enough for students to follow and develop basic analysis of mechanisms and machines. Stress levels and strain are covered allowing for determination of acceptable analysis and design of mechanical systems. (Prerequisites: MATH 1179 and 1181; ENGR 1020 and 1030) Lecture: 2 hours, Lab: 2 hours - Lab Fee: $20

ETME 2310 - Automation Systems
(3 Credits)
This course addresses fundamental issues of automation. Topics covered include the types of automation, designing for automation, automatic assembly transfer systems, automatic feeding and orienting, and automated material handling systems. Quality and cost analysis as they relate to automation, the design and analysis of lean systems, as well as advanced topics in robotics such as vision systems technology are also discussed. (Prerequisites: ETEE 1800; ETME 1010) Lecture 2 hours, Lab 2 hours

ETME 2500 - Mechanical Systems II (Capstone)
(3 Credits)
The purpose of this course is to teach the student how mechanical components (studied in the prerequisites INST 1010 – Introduction to Instrumentation, ETME 1010 – Robotics and Control, ETEE 1050 – Introduction to Electromechanical Systems, and ETME 1500 – Mechanical Systems I) are combined and intergraded into complex working systems. The course will stress building assemblies and harnessing electrical controls to the assemblies. This course is designed to cement together the knowledge learned in previous courses within the program. Students will learn to create operational sequences, build systems from standard components, write programs to control them, apply necessary sensors and actuators, and operate and debug their assemblies. (Prerequisites: MATH 1179 and 1181; ENGR 1020 and 1030; ETEE 1050; ETME 1010 and 1510). Lecture: 2 hours, Lab: 2 hours - Lab Fee: $20

ETME 2930 - Industrial Materials (Formerly ENGT 2930)
(3 Credits)
This course is an introduction to the different material systems in material science. This course includes an introduction to the structure and properties (such as mechanical, chemical, and physical properties) of materials, specifically metals. Equilibrium phase diagrams and isothermal diagrams are also introduced. This course also introduces various techniques of materials testing such as tensile, creep, bend, hardness, impact, and fatigue testing. Also covered are various techniques of heat treatment such as annealing. This course examines the factors that influence the production and modification of materials into useful forms. Students learn about the various manufacturing processes and machinery used to convert raw materials into finished products. The course gives the student "hands on" experience with materials and processes used in industry. A lab is also utilized to demonstrate various techniques. Lecture: 2 hours, Lab: 2 hours - Lab Fee: $20

ETUT (Energy Utility Technology)

ETUT 1060 - Energy Industry Safety
(3 Credits)
This course provides an introduction to the principles of safety and guidelines for the design and maintenance of energy equipment. Students will learn the skills necessary for safe power generation, transmission and distribution. The course will cover industry safety practices and human reactions in normal and abnormal conditions. Safe working conditions will be compared to industry standards and OSHA regulations. From a safety prospective, the course will provide an overview of the electric generation process, power plant systems and functions, typical power industry philosophy, departmental responsibilities and practices, industrial health issues, and environmental safety. (Prerequisite: MATH 0099 with a grade of "C" or better) Lecture: 2 hours, Lab: 2 hours - Lab Fee: $20

ETUT 1160 - Introduction to Energy Utility Industry
(3 Credits)
This course provides the student with an overview of the energy utility industry and its occupational opportunities. This includes the history of providing reliable energy service, regulatory influences, and electric/gas energy flow. The course will also cover basic terminology, typical conditions for employment, and career opportunities. Current technology for energy generation, transmission and distribution will be discussed and demonstrated. This course will integrate an overall understanding of the energy utility industry, its functions, business issues, procedures and practices. (Prerequisite: MATH 0099 with a grade of "C" or better) Lecture: 2 hours, Lab: 2 hours. - Lab Fee: $20

ETUT 2500 - Energy Industry Practicum and Capstone
(3 Credits)
As part of a practicum this course will introduce the student to the practical skills and procedures of a major power generation company (National Grid). The practicum will allow students to learning how to splice wires, connect fuses and transformers. Students will become familiar with the tools and equipment used in the power industry. The course will also function as a program capstone, providing the student an opportunity to integrate all energy utility industry knowledge obtained to date and to complete their program portfolio. The practicum is one eight-hour day per week for
eight consecutive weeks at the National Grid Millbury Massachusetts Training Center. (Prerequisite: ETEE 1500) Spring Only. Lecture: 2 hours, Practicum: 8 hours per week - Lab Fee: $20

FILM (Film/Media)

FILM 2204 - History of Film I
(3 Credits)
This course studies the history of motion pictures, beginning with the invention of the moving image in the 1880s through the middle of the twentieth century. The industrial and social history of cinema in the United States, including the studio system, the star system, and content regulation, are explored. The international cinema of Germany, France, Soviet Union, and other countries are also studied. Historical events and their influences are investigated, including world wars, cultural transformations, racial diversity and global influences. Technical invention of key visual and audio recording devices is reviewed, as well as key narrative developments in structure, genre, pacing and editing. Significant films will be screened for analysis and discussion. Lecture: 3 hours, Screening: 1 hour

FILM 2205 - History of Film II
(3 Credits)
This course is designed as an overview of the significant national and international trends in the history of film, from approximately 1950 until the present day. The emphasis will be on significant cinematic movements, the key players and films within those environments, and the larger social and historical context in which these movements occurred. Through screenings, readings, and class discussions, students will develop an appreciation for the critical insight into the history, politics, aesthetics, and philosophical debates that shaped these cinematic traditions. Lecture: 3 hours, Screening: 1 hour

FIRE (Fire Science)

FIRE 1010 - Principles of Fire and Emergency Services Safety & Survival
(3 Credits)
This course introduces the basic principles and history related to the national firefighter life safety initiatives, focusing on the need for cultural and behavioral change throughout the emergency services. Lecture: 3 hours

FIRE 1020 - Fundamentals of Fire Prevention
(3 Credits)
This course provides personnel in the fire service with a basic knowledge of the field of fire prevention. (Prerequisite: FIRE 1030) Lecture: 3 hours

FIRE 1030 - Introduction to Fire Science and Officership
(3 Credits)
This course provides an introduction to fire science and covers, in detail, the fire officer and his/her relationship with the fire organization. The fire officer's responsibilities and duties, related to fire fighting and non-firefighting activities, are also covered in detail. Lecture: 3 hours

FIRE 1040 - Fire Fighting Tactics and Strategy
(3 Credits)
The essential elements in analyzing the nature of fires and methods of control are discussed in detail in this course. A segment of this course includes field projects with practical experience, building inspection and problems relative to major conflagrations. (Prerequisite: FIRE 1030) Lecture: 3 hours

FIRE 1050 - Building Construction and Fire Codes
(3 Credits)
The elements of fundamental building construction, design and fire protection features are covered in this course. Attention is also given to special considerations related to national, state and local laws and ordinances directly related to the field of fire prevention. (Prerequisite: FIRE 1020) Lecture: 3 hours

FIRE 1070 - Fire Protection Systems and Equipment
(3 Credits)
This course provides students with technical knowledge in the use of fire protection systems and equipment. Portable fire extinguishing equipment, sprinkler systems, protection systems for special hazards, and fire alarm and detection systems are covered. (Prerequisite: FIRE 1020) Lecture: 3 hours
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<tr>
<th>Course Code</th>
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<tr>
<td>FIRE 1090</td>
<td>Fire Hydraulics and Equipment</td>
<td>3</td>
<td>This course provides a review of basic mathematics and hydraulic laws and formulas as applied to the fire service. Time is allotted for practical application of formulas and mental calculation to hydraulic problems as well as for consideration of the water supply problem and underwriters' requirements for pumps. A segment of this course includes practical field experience. (Prerequisite: MATH 1025) Lecture: 3 hours</td>
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<tr>
<td>FIRE 1100</td>
<td>Municipal Fire Administration</td>
<td>3</td>
<td>This course provides an overview of the technical and administrative tasks associated with maintenance, custody and operation of a fire department. (Prerequisite: FIRE 1030) Lecture: 3 hours</td>
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<tr>
<td>FIRE 1120</td>
<td>Investigations, Fire and Explosions</td>
<td>3</td>
<td>This course covers the history, development and philosophy of fire investigation and detection. Topics include inspection techniques, gathering evidence for the development of technical reports, fundamentals of arson investigations, processing of criminal evidence and criminal procedures related to the various states and local statutes. Considerable time is spent on examination of explosive and incendiary devices, methods of search and bomb-threat procedures. Lecture: 3 hours</td>
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<tr>
<td>FIRE 1130</td>
<td>Emergency Medical Technician Basic</td>
<td>8</td>
<td>This course trains emergency medical technicians and other allied health and safety personnel for emergency care of the sick and injured at the scene and during transport. Classroom experience and practical demonstration are used to familiarize students with the use of rescue equipment. Students are assigned 10 hours of clinical experience in the emergency room of an affiliated hospital. Lecture: 8 hours, Lab: 2 hours - Lab Fee: $20</td>
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<tr>
<td>FREN (French)</td>
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<tr>
<td>FREN 1000</td>
<td>Basic Spoken French I</td>
<td>3</td>
<td>This is an introductory elective course for beginners emphasizing correct pronunciation and basic vocabulary for practical use in everyday conversational situations and travel dialogues. Students with no previous study of the language are prepared to use and understand it within a limited context and basic structure. Lecture: 3 hours</td>
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<tr>
<td>FREN 1010</td>
<td>Elementary French I</td>
<td>3</td>
<td>This course is for students with little or no preparation and covers elements of the language including: conversation, pronunciation, reading, writing and grammar. Aspects of French-speaking cultures are also included. Lecture: 5 hours</td>
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<tr>
<td>FREN 1020</td>
<td>Elementary French II</td>
<td>3</td>
<td>This is a continuation of Elementary French I (FREN 1010). (Prerequisite: FREN 1010, FREN 1030 or its equivalent) Lecture: 5 hours</td>
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<tr>
<td>FREN 1030</td>
<td>Elementary French I</td>
<td>3</td>
<td>French 1030 is a faster paced version of French 1010. This course is suitable for students with previous experience i.e. Basic spoken French and /or other prior formal study of the language, prior formal study of another foreign language, or informal experience with a foreign language. The course covers elements of the language including: conversation, pronunciation, reading, writing, and grammar. Aspects of French-speaking cultures are also included. Note: Course content is the same as French 1010 with two fewer hours per week. (Prerequisite: Prior preparation as noted above or permission of instructor). Lecture: 3 hours</td>
</tr>
<tr>
<td>FREN 1040</td>
<td>Elementary French II</td>
<td>3</td>
<td>This course is a continuation of FREN 1030. Note: Course content is the same as FREN 1020 with 2 less classroom hours per week. (Prerequisite: FREN 1030, FREN 1010 or its equivalent) Lecture: 3 hours</td>
</tr>
</tbody>
</table>
### FREN 2010 - Intermediate French I
(3 Credits)
This course helps students develop skill in reading and discussing French texts related to culture and literature. Course work is supplemented by further work in grammar, conversation and composition. (Prerequisite: FREN 1020 or 1040 or its equivalent) Lecture: 3 hours

### FREN 2020 - Intermediate French II
(3 Credits)
This course is a continuation of Intermediate French I (FREN 2010). (Prerequisite: FREN 2010 or its equivalent) Lecture: 3 hours

### GEOG (Geography)

#### GEOG 1010 - Introduction to Geography
(3 Credits)
Physical and cultural elements of geography are considered as they relate to each other in the economic, political, cultural and historical aspects of human civilization. Map study is a major focus of this course as we examine all major regions of the world. Lecture: 3 hours

### GEOL (Geology)

#### GEOL 1010 - Gen Geology I-Physical Geology
(4 Credits)
This course investigates the planet Earth, explaining the geologic events and features through plate tectonics. Major topics included are the study of minerals and rocks; volcanoes; earthquakes; weathering and erosion; streams and floods; and groundwater. In addition, a field trip to localities in Rhode Island and the vicinity is taken. Course fulfills one lab science requirement for A.A. degree. Lecture: 3 hours, Lab: 2 hours - Lab Fee: $20

#### GEOL 1020 - The Earth Through Time
(4 Credits)
This course investigates the geological history of the Earth. Topics include plate tectonics; climate change, such as the Ice Age; and the evolution of life (e.g. dinosaurs). A key goal is to learn how these topics have interacted through time resulting in the present location of our continents, oceans, and present day life. Off-campus field trips to Rhode Island locations are usually scheduled. - Lab Fee: $20

#### GEOL 1030 - Natural Disasters
(3 Credits)
This course studies the earth by focusing on natural disasters. The causes and consequences of such events are examined within the framework of earth sciences. Major topics covered include earthquakes, volcanoes, tsunami, landslides, climate change, hurricanes, floods and meteorite impacts. Lecture: 3 hours

#### GEOL 1040 - Introduction to Geographic Information Systems (GIS)
(3 Credits)
This course is an introduction to using ArcGIS 9.3 to create and analyze digital maps. Students learn how to use the software to create maps, graphs, and reports. Basic cartography, coordinate systems, geodesy, map projections, and map design are also covered. Students complete and present a final mapping project on a topic of their choosing. Lecture: 2 hours, Lab: 2 hours - Lab Fee: $20

#### GEOL 1050 - Urban Geology
(4 Credits)
This course explores the relationship of cities to their natural settings. The Earth’s surface features, geological processes, and internal structure are explored, including plate tectonics, earthquakes, volcanoes, the rock cycle, rivers, and mass wasting. These and more are investigated in terms of their effect on urban areas. Topics include building stone, water supply, sanitation, population growth, and megacities in the developing world. There will be a field trip to look at stone buildings in Providence or Newport. Lecture: 3 hours, Lab: 2 hours

#### GEOL 2010 - Introduction to Geoscience Research Methods
(4 Credits)
Course introduces students to geoscience research methods, which include hypothesis development, field practices, data analysis and interpretation, and scientific communication within the various areas of geosciences. Students will collect, analyze, interpret and present within an initially guided
and student directed, independent projects. This course will focus on building transferable skills, independent thinking, and improving knowledge applications. - Lab Fee: $20

**GERM (German)**

**GERM 1000 - Basic Spoken German I**  
(3 Credits)  
This is an introductory elective course for beginners emphasizing correct pronunciation and basic vocabulary for practical use in everyday conversational situations and travel dialogues. Students with no previous study of the language are prepared to use and understand it within a limited context and basic structure. Lecture: 3 hours

**GERM 1010 - Elementary German I**  
(3 Credits)  
This course is for students with little or no preparation and covers elements of the language including: conversation, pronunciation, reading, writing and grammar. Aspects of German culture are also included. Lecture: 5 hours

**GERM 1020 - Elementary German II**  
(3 Credits)  
This is a continuation of Elementary German I (GERM 1010). (Prerequisite: GERM 1010, 1030 or equivalent) Lecture: 5 hours

**GERM 1030 - Elementary German I**  
(3 Credits)  
German 1030 is a faster paced version of German 1010. This course is suitable for students with previous experience i.e. Basic spoken German and / or other prior formal study of the language, prior formal study of another foreign language, or informal experience with a foreign language. The course covers elements of the language including: conversation, pronunciation, reading, writing, and grammar. Aspects of German-speaking cultures are also included. Note: Course content is the same as German 1010 with two fewer hours per week. (Prerequisite: Prior preparation as noted above or permission of instructor). Lecture: 3 hours

**GERM 1040 - Elementary German II**  
(3 Credits)  
This course is a continuation of GERM 1030. Note: Course content is the same as GERM 1020 with 2 less classroom hours per week. (Prerequisite: GERM 1030, GERM 1010 or its equivalent) Lecture: 3 hours

**GERM 2010 - Intermediate German I**  
(3 Credits)  
This course helps students develop skill in reading and discussing German texts related to culture and literature. Course work is supplemented by further work in grammar, conversation and composition. (Prerequisite: GERM 1020, 1040 or its equivalent) Lecture: 3 hours

**GERM 2020 - Intermediate German II**  
(3 Credits)  
This is a continuation of Intermediate German I (GERM 2010) (Prerequisite: GERM 2010 or its equivalent) Lecture: 3 hours

**HEAL (Health)**

**HEAL 0200 - CPR-Healthcare Providers**  
(0 Credits)  
This course provides training in CPR skills and use of the automated external defibrillator (AED). It is a five-hour, noncredit course in which an American Heart Association course completion card is issued after satisfactory demonstration of CPR skills and a satisfactory score on a multiple-choice test. Course content includes risk factors, signs and symptoms of heart disease and stroke, and actions to take with an individual experiencing symptoms. CPR skills taught and practiced include relief of foreign body airway obstruction, rescue breathing, and cardiopulmonary resuscitation for infants, children and adults. Note: Health care provider card is a requirement for all Health and Rehabilitative Sciences programs. - CPR Fee: $45
HEAL 1000 - Introduction to Health Careers
(3 Credits)
This course provides an overview of the health field including the characteristics of health care workers, ethical and legal considerations in health care and selected content common to all health programs. (Prerequisite: Accuplacer reading score of 75 or higher.) Lecture: 3 hours

HEAL 1015 - Health Issues in Aging
(3 Credits)
This three-credit course is designed for individuals who work in health care and other professions that deal with an aged population. It examines the unique issues related to the elderly with a particular emphasis on healthy aging in our society. An overview of the aging process will include specific aspects such as physiological and psychological changes, socialization, and chronic illness. The management of chronic health problems, disease prevention, and health promotion will be discussed. Attention to social, political, and cultural issues will be discussed including family, community, and health services resources. Discussions will focus on the interdisciplinary approach to elder care, emphasizing healthy aging and optimal wellness. Lecture: 3 hours

HEAL 1055 - Focus on Nursing Pharmacology
(3 Credits)
The student nurse is in a unique position regarding drug therapy. Nursing responsibilities include administration of drugs, assessing drug side effects and adverse reactions, interventions to make the drug regimen more tolerable, providing patient teaching and monitoring the patient’s care plan to prevent medication errors. This presents pharmacology as an understandable and learnable subject through the utilization of the nursing process. The course involves the study of drug classes, pharmacokinetics, pharmacodynamics, pathophysiological changes related to drug classes, and application of nursing fundamentals. Lecture: 3 hours

HEAL 1060 - Dosage Calculations for Medication Administration
(3 Credits)
This course is designed to meet the needs of any current or potential practitioners of nursing whose responsibilities include the safe administration of medications to clients within diverse clinical settings. A working knowledge of dosage calculations is necessary within any given medication administration system today. Information related to systems of measurements and conversions within these systems is presented. This course helps health care professionals calculate dosages accurately, with increased confidence and decreased math anxiety to ensure the safe administration of medications, which is the primary responsibility of nurses. (Prerequisite: MATH 0500 or appropriate placement test score) Lecture: 3 hours

HEAL 1070 - Physical Assessment for Nurses
(4 Credits)
This course introduces students to examination techniques for adult physical assessment. Anatomy and physiology are reviewed to reinforce understanding of bodily processes necessary to understand the physical exam. Focus is on normal and abnormal findings. Consideration is also given to cultural, ethnic, and special populations. (Prerequisite: BIOL 1010, 1020) Lecture: 3 hours

HEAL 1080 - Nursing Documentation
(3 Credits)
This BlackBoard course is designed to help nursing students or practicing nurses develop documentation skills within a variety of systems and methods. Legal and ethical implications of documentation are described. Strong emphasis is placed on documentation systems utilizing the nursing process framework. Students are encouraged to analyze and apply what they have learned through the use of case studies. (Prerequisite: Nursing student/practicing nurse) Lecture: 3 hours

HEAL 1085 - Nursing Informatics
(3 Credits)
This course is designed for individuals who work in health care and other professions that deal with informatics. It will examine the theory and applications of nursing, computer and information science to enhance decision making in health care settings. An overview of nursing informatics will include computer, networking, databases, research, legal and ethical issues. This course will involve theory and application to practice. Lecture: 3 hours, Lab: 1 hour
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<tr>
<td>HIST 1010</td>
<td>Survey of Western Civilization I</td>
<td>3</td>
<td>This course is a survey of Western cultural development from its inception in the Near East, through Greece and Rome, the Middle Ages, the Renaissance and the Reformation of the 16th century. Lecture: 3 hours</td>
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<tr>
<td>HIST 1020</td>
<td>Survey of Western Civilization II</td>
<td>3</td>
<td>This survey course examines the dominant influences in Western culture from the 16th to the 20th century. Lecture: 3 hours</td>
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<tr>
<td>HIST 1210</td>
<td>History of the United States to 1877</td>
<td>3</td>
<td>This is a survey course of American history beginning with European backgrounds and discovery and continuing through the period of reconstruction. Lecture: 3 hours</td>
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<tr>
<td>HIST 1220</td>
<td>History of the United States from 1877</td>
<td>3</td>
<td>This survey course covers American history from the rise of industrialism to the present. Lecture: 3 hours</td>
</tr>
<tr>
<td>HIST 2010</td>
<td>Women in North American History, 1600-1900</td>
<td>3</td>
<td>This is a survey course in the history of American women in North America that begins with pre-contact societies of native Americans and concludes with the Progressive Era at the turn of the twentieth century. Students will examine the experiences of native American women, European colonial women, African slave women and their mistresses, middle-class women of the Northeast, pioneering women, working girls, female reformers and radicals, women in the Civil War, and in Progressivism. Prerequisite: HIST 1210 and reading level 0700. Lecture: 3 hours</td>
</tr>
<tr>
<td>HIST 2015</td>
<td>Women in North American History, 1900 - Present</td>
<td>3</td>
<td>This is a survey course in the history of American women in North America from the turn of the twentieth century to the present. Students will examine women's culture and society in a maturing urban industrial order in the late nineteenth century Gilded Age; analyze women's political activism in the Progressive Era, and explore the changing notions of sexuality that influenced gender roles for both women and men in the early twentieth century. Also included are topics concerning women's roles in the Great Depression and World War II, the re-emergence of the Cult of Domesticity in the postwar era, the civil rights movement, and feminism's second wave in the 1960s and 1970s. Prerequisite: HIST 1220 and reading level 0700. Lecture: 3 hours</td>
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<tr>
<td>HIST 2020</td>
<td>Civil War and Reconstruction</td>
<td>3</td>
<td>This course is a blend of both traditional Civil War history and the latest developments in the field, especially in social history. Political and military matters are analyzed, as well as the lives of slaves, soldiers and women. The topic of slavery will be thoroughly explored, as well as the effort to rehabilitate the lives of former slaves during Reconstruction. (Prerequisite: HIST 1210 or by faculty referral). Lecture: 3 hours</td>
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<tr>
<td>HIST 2035</td>
<td>American Society and Culture in the Cold War, 1945-1991</td>
<td>3</td>
<td>This course examines U.S. foreign policy in the Cold War era and its impact domestically and globally. Lecture: 3 hours</td>
</tr>
<tr>
<td>HIST 2241</td>
<td>America's Experience in Vietnam</td>
<td>3</td>
<td>This course examines, in-depth, America’s involvement in Vietnam from World War II to 1975. Military, political, social and cultural reasons for, as well as consequences of, the American commitment are studied. (Recommended: HIST 1220 prior to this course) Lecture: 3 hours</td>
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HIST 2245 - History of Asian-Americans
(3 Credits)
This course surveys Asian-American history from the 1840s to the present. The first half of the course focuses on the experiences of Chinese, Japanese and Filipino immigrants in the U.S. from the Gold Rush (late 1840s) to World War II. The main emphases are on immigration, communities, race relations, exclusion and incarceration. The second half of the course moves on to the great changes within the Asian-American community since the 1960s: new immigration from Korea, South Asia and the refugee communities of Vietnamese-Cambodian-, and Laotian/ Hmong-Americans. Lecture: 3 hours

HIST 2250 - History of Black America
(3 Credits)
This course focuses on the history of black Americans from African origins to the present. Consideration is given to slavery, Reconstruction and ethnic relations from Colonial times to the present. (Recommended: HIST 1210 and/or 1220 prior to this course) Lecture: 3 hours

HIST 2260 - A Survey of East Asian Civilization
(3 Credits)
This is a survey of East Asian civilization from ancient times to the modern period. The course also will treat the region as part of world history with discussions and comparisons of East Asia and other world economies and cultures. Lecture: 3 hours

HIST 2330 - War and Society
(3 Credits)
In this course, we will explore the ways that war and violence were central to the formation, consolidation and expansion of European nation-states from the French Revolution to the collapse of empires in Europe. We will begin by reading works on the nature and origins of violence in modern society. We will then examine the rise of mass politics and the ideologies that produced widespread destruction in the wake of the French and Industrial Revolutions. When we move to the 20th century, we will focus significant attention on the history of the two World Wars, but we will be equally concerned with identifying the changing notions of legitimate state and interpersonal violence. Course readings will include primary and secondary sources, but films and music also will be important. Prerequisite: HIST 1020. Lecture: 3 hours

HMLS (Homeland Security)

HMLS 1000 - Introduction to Homeland Security
(3 Credits)
This course is designed to provide the student with an understanding of the definition, origins, and development of Homeland Security in the United States. The terminology of the Department of Homeland Security will be discussed as well as the presidential directives that created this new department. This course will explore state, national, and international laws impacting homeland security. The course will examine the most critical threats and challenges confronting homeland security. This course will also discuss how DHS has changed over the past several years in reaction to different terrorist events and the future of protecting the homeland. Lecture: 3 hours

HMLS 1010 - Intelligence Analysis and Risk Management
(3 Credits)
This course examines intelligence analysis and its indispensable relationship to the security management of terrorist attacks, man-made disasters and natural disasters. It also explores vulnerabilities of our national defense and private sectors, as well as the threats posed to these institutions by terrorists, man-made disasters, and natural disasters. Students will discuss substantive issues regarding intelligence support of homeland security measures implemented by the United States and explore how the intelligence community operates. Lecture: 3 hours

HMLS 1020 - Border and Transportation Security
(3 Credits)
Provides an in-depth view of modern border and transportation security. Specific topics include security for seaports, ships, aircraft, trains, trucks, pipelines, buses, etc. Focuses on the technology needed to detect terrorists and their weapons as well as includes discussion on legal, economic, political, and cultural aspects of the problem. Lecture: 3 hours

HMNS (Human Services)

LEVEL I FIELD and PRACTICUM EXPERIENCES
HMNS 1200, 1201, 1210 and 1220
All field and practicum courses are competency-based internships designed to train students in basic human service skills through a combination of field placement and seminar activities. Field placements range from 50 to 90 hours per semester and require a one- to three-hour campus-based seminar. (Prerequisite: Grades of C or better in HMNS 1010 and the required Human Services courses for each concentration) Note: Eligibility for field placement at all levels is subject to academic standing and instructor recommendations regarding readiness. Seminar 1–3 hours, Fieldwork: 4–8 hours

**LEVEL II FIELD EXPERIENCES**

**HMNS 2310, 2320, 2340 and 2360**

Level II internships are designed to develop intermediate skills in various disciplines. Students are assigned to cooperating agencies and schools for 75 to 90 hours per semester and also are required to attend a one- to two-hour seminar each week. (Prerequisites: Grade of C or better in Field I and required Human Services courses) Seminar: 1–2 hours, Fieldwork: 6–8 hours

**LEVEL III FIELD EXPERIENCES**

**HMNS 2410, 2420, 2440 and 2460**

Level III internships combine field experience and seminar to further develop advanced intervention and implementation skills in all Human Services concentrations. Students are assigned to a cooperating agency or school for 75 to 90 hours per semester and are required to attend a one- to two-hour seminar each week. (Prerequisites: Grades of “C” or better in Field Experiences I and II and required Human Services courses) Seminar: 1–2 hours, Fieldwork: 6–8 hours

**HMNS 1010 - Introduction to Helping and Human Services**  
*(3 Credits)*

This is the first in a sequence of required courses for internship placement in all Human Services Concentrations. This course provides a working familiarity with theories of human development and will explore values and helping skills that are generic to the fields of teaching and human services. Students examine personal and professional attitudes, values and beliefs that correlate with high effectiveness and will review current research for an understanding of social and behavioral issues critical to effective teaching and helping. Tools to assist students in self-assessment, use of a sequential model for helping and the development of critical reading and reflective writing skills are provided. Note: Grade of C or better required for Human Services program students. Lecture: 3 hours

**HMNS 1040 - Drugs and Human Behavior**  
*(4 Credits)*

This course provides general and specialized knowledge concerning the bio-psycho-social antecedents and consequences of drug taking behaviors. Additionally, it carefully examines the nature of compulsion as it relates to the activity addictions. The use of medical, behavioral and psychodynamic models promote an understanding of addiction as a process, not an event, and students are exposed to current research documenting the connections between addictive behavior activities and brain chemistry. Students will gain knowledge and skills in the areas of assessment, intervention, treatment, relapse prevention and health promotion for working with individuals, groups and families affected by addictive and compulsive disorders. This course is required for placement in a substance abuse internship. Note: Grade of C or better required for Human Services program students. Lecture: 4 hours

**HMNS 1080 - Health, Nutrition and the Young Child**  
*(3 Credits)*

This course provides students with basic concepts of health, nutrition and food science as they apply to the care and education of young children. Students acquire those skills necessary for incorporating critical concepts into programming and curriculum in a wide variety of early childhood settings. Students will be required to spend 4-6 hours over the course of the semester participating in experiences and researching application of course content in a public school, licensed educational setting or licensed child care. Note: This course is approved by the Department of Education for RI Early Childhood Teacher Certification. Grade of C or better required for Human Services program students. Lecture: 3 hours

**HMNS 1090 - Foundations of Gerontology and Elder Care**  
*(3 Credits)*

Using a competency-based approach, this course provides students with specialized skills needed to plan and implement the professional delivery of direct services to senior adults, nursing home residents, the frail and elderly and the chronic or disabled senior patient. Students become familiar with the construction and interpretation of diagnostic assessments as part of senior activity planning that addresses the physical, social and emotional needs of the nursing home client. Note: Grade of C or better required for Human Services program students. Lecture: 3 hours
### HMNS 1130 - Introduction to Interpersonal Violence
(3 Credits)
This course is designed to introduce students to current research and theories of interpersonal violence. Students acquire knowledge about developmental approaches as well as psychological and sociological theories as they relate to the effects of interpersonal violence on individuals and society. A systems perspective is used to examine both victim and perpetrator profiles in the areas of child abuse and neglect, attachment abuse, elder abuse, partner abuse, hate crimes and youth violence. Note: Grade of C or better required for Human Services program students. Lecture: 3 hours

### HMNS 1140 - Interventions in Interpersonal Violence
(3 Credits)
This course is designed as an extension of HMNS 1130 and will explore the continuum of prevention, intervention and treatment in interpersonal violence. Students will learn about treatment and intervention models as well as current research describing advocacy, psychological, sociological and systems approaches. The specific strategies suggested by each are reviewed toward providing students with skills for appropriate interventions. Note: Grade of C or better required for Human Services program students. Lecture: 3 hours

### HMNS 1200 - Practicum I: Service Learning
(3 Credits)
The purpose of this course is to develop and refine observation, communication, presentation, writing and service skills appropriate for entry level placement in a social service environment. It is designed to assist students in clarifying their concentration by providing a skill-specific seminar and a 50 hour Service Learning Practicum. Locations are sought for students to develop entry level helping skills while engaged in activities that support community service, civic commitment and the development of social consciousness. (Prerequisites: HMNS 1010, 2200) Grades of C or better required. Note: Eligibility is subject to placement approval and instructor assessment of student readiness. Students are required to have a BCI (Bureau of Criminal Investigation) background check and complete a placement contract. Grade of C or better is required for Human Service program students.

### HMNS 1210 - Field Experience and Seminar I - Child Development
(3 Credits)
This course provides a school or community-based placement (as arranged by the instructor) and seminar to assist students in gaining entry-level skills for working with children from birth to age eight. Students will learn practical and professional skills for establishing positive relationships with young children and how to select age-appropriate materials that promote the cognitive, social-emotional and physical development of young children. Students begin the development of their professional portfolio in their Field I Seminar. Students are expected to complete 78-90 hours of supervised placement on the designated days and times as noted upon course registration. Students are required to complete a BCI (Bureau of Criminal Identification) background check and should be up to date with immunizations. (Prerequisites: HMNS 1010, 2100 with grades of C or better required for Human Services program students)

### HMNS 1220 - Field Experience and Seminar I - Education/Special Needs
(3 Credits)
This course places students in a school or community-based placement (as arranged by the instructor) that provides hands-on training with typical and/or special needs students. Students gain entry level skills in instructional work, developing rapport, behavior management, student assessment and materials presentation and utilize their Seminar to address issues relating to their field placement. Students will complete 78-90 hours of supervised placement on the designated days and times as noted upon course registration. (Prerequisite: HMNS 1010 and either 2060 or 2070 with grades of C or better required for Human Services program students)

### HMNS 2030 - Emergent Literacy: Reading Readiness in ECE
(3 Credits)
This course introduces students to the theoretical and practical foundations of emergent literacy. Students will develop teacher competencies in areas of developmental assessment, teaching methodology, curriculum planning and implementation. This course is required for RI Certification in Early Childhood Education. Note: Grade of C or better required for Human Services program students. (Prerequisite: HMNS 2100, 2120, 1210, 2310) Lecture: 3 hours

### HMNS 2060 - Foundations of Teaching and Learning
(3 Credits)
This course provides a theoretical and practical foundation for understanding the evolution and current state of American schooling. Students will examine critical issues related to classroom environment, learning styles and appropriate instruction, curriculum development, standards and diversity. Students will gain a practical understanding of those ethics and indices of professional development that correlate with effective teaching. This is a required course for teacher associates, education and special education majors. Note: Grade of C or better required for Human Services program students. Lecture: 3 hours
## Community College of Rhode Island

### HMNS 2070 - Characteristics and Needs of Special Populations
(3 Credits)
This course examines origins, indicators and issues related to children and adults who have significant differences mentally, physically, socially, behaviorally or in the area of communicative skills. Students gain a working knowledge for recognizing and responding appropriately to the needs of children and adults in a variety of educational and caregiving environments. Educational modifications and placement alternatives are discussed. This is a required course for Special Education, Education and Child Development majors. Note: Grade of C or better required for Human Services program students. Lecture: 3 hours

### HMNS 2080 - Case Study Development for Special Needs Educators
(3 Credits)
This course is an applied learning experience that links and illuminates theoretical and academic information discussed in class with a student currently enrolled in an actual school-based program, in order to promote an understanding of differences in learning and development. Students will complete a minimum of 30 contact hours in an educational setting that includes children with disabilities. Students will select a child to study, review the student's assessment and IEP for the purpose of presenting it as a formal case study. Note: Grade of C or better required for Human Services program students. Lecture: 2 hours, Lab: 2 hours

### HMNS 2100 - Child Growth and Development Skills
(3 Credits)
This course is the first in a sequence for Child Development majors and provides the foundation for understanding major theories in the physical, social, intellectual and emotional needs of children. Students will explore various teaching styles for observing, assessing and guiding the growth and development of young children. Students are required to observe children from birth to age eight in a public school, licensed educational setting for a total of 4-6 hours over the course of the semester. Note: Grade of C or better required for Human Services program students. Lecture: 3 hours

### HMNS 2110 - Introduction to Social Work and Social Welfare
(4 Credits)
This course provides an overview of social work as a profession, including its history, values, practices, methods and settings. Students will gain a working knowledge of the structure and organization of public, private and voluntary social services, welfare programs and their interconnection in the human service delivery network. Students will understand the code of ethics, skills and competencies that guide effective practitioners in the social work profession. Note: Grade of C or better required for Human Services program students. Lecture: 4 hours

### HMNS 2120 - Curriculum for Young Children
(3 Credits)
This course is designed so students can develop the skills necessary to plan developmentally appropriate curriculum and environments for children from birth to age eight in a variety of early childhood settings. Students will gain an understanding of how children learn and how to assess developmental readiness for creating and implementing developmentally appropriate. Students will be required to spend 3-4 hours over the course of the semester observing environments and implementing learning opportunities in a public school, licensed educational or child care setting. (Prerequisite: HMNS 2100 or equivalent experience approved by instructor) Note: Grade of C or better required for Human Services program students. Lecture: 3 hours

### HMNS 2130 - Therapeutic Interventions I: Working with Individuals
(3 Credits)
This course provides a comprehensive overview of major therapeutic models including psychoanalytic, Adlerian person-centered reality, Gestalt, transactional, rational-emotive and behavioral. Students will acquire related intervention skills and techniques for meeting the needs of individual clients of all ages served in social work, mental health and substance abuse settings. Emphasis is also placed on ethical standards and the development of skills needed for formulation of bio-psycho-social case/treatment plans. (Prerequisite: HMNS 2200) Note: Grade of C or better required for Human Services program students. Lecture: 3 hours

### HMNS 2135 - Therapeutic Interventions II: Group Process and Practice
(3 Credits)
This course provides a comprehensive overview of major therapeutic models and related intervention methods for use with families and small groups. Students will learn skills appropriate for constructing and facilitating groups in social service and mental health settings. (Prerequisites: HMNS 1010, 2200; HMNS 2130 also recommended with grades of C or better required for Human Services program students) Lecture: 3 hours
HMNS 2140 - Guiding Children's Behavior  
(3 Credits)  
This course examines positive strategies in supporting and guiding the emotional self-regulation and social competence in early childhood development. Emphasis is placed on intervention strategies to critical issues common to young children. Student will learn skills related to shaping the ways young children think, learn, react to challenges and develop relationships. Students will practice positive guidance strategies and learn about classroom design as a focus of prevention of behavior problems. Students may be required to spend 4-6 hours over the course of the semester conducting observations in an educational or licensed childcare setting. Note: Grade of C or better is required for Human Services program students. Lecture: 3 hours

HMNS 2150 - Parent and Child Relations  
(3 Credits)  
This course explores the parent-child relationship as it develops and evolves within diverse family systems and reviews strategies for working with parents. Special attention is placed upon the various developmental stages that both children and parents pass through and, in turn, how children and parents influence and challenge each other's development. Selected topics may include the impact that various parenting and behavioral control styles can have on children, how such issues as culture, social class, children's temperament, divorce, abuse, special needs and parental mental health can impact parenting and child well-being. Students develop an understanding of how to assess parent-child relations and review behavioral strategies for working with parents in educational and social settings. Note: Grade of C or better required for Human Services program students. Lecture: 3 hours

HMNS 2170 - Learning Disabilities  
(3 Credits)  
This course provides students with an understanding of learning disabilities as they manifest in children and as they impact learning and development. Students are able to recognize the characteristics; impact on self-concept; various auditory, visual, perceptual and motor challenges; language delay and hyperactivity and become familiar with diagnostic tests and the appropriate remediation techniques most often prescribed. The Individuals with Disabilities Education Act, along with current changes in research and social policy, frame discussions around eligibility for special services, the referral process and parental rights. (Completion of HMNS 2070 strongly recommended.) Note: Grade of C or better required for Human Services program students. Lecture: 3 hours

HMNS 2180 - Significant Developmental Disabilities  
(3 Credits)  
The course provides a specialized understanding of individuals with significant developmental disabilities that includes a focus on multi-sensory impairment, severe intellectual disabilities and profound multiple disability. Students will learn strategies through hands-on activities for developing appropriate intervention and remedial skills. Use of technology, supportive equipment and environmental modifications are included. (Completion of HMNS 2070 recommended.) Lecture: Note: Grade of C or better required for Human Services program students. 3 hours

HMNS 2190 - Infant/Toddler Care: Methods and Materials  
(3 Credits)  
This course is designed to assist in the planning of curriculum and caregiving for infants and toddlers in home family child care and center-based settings. Students develop skills for planning, selecting developmentally appropriate materials and designing the physical and social environments related to the promotion of infant and toddler development. Students will be required to spend 4-6 hours over the course of the semester conducting observations in a licensed infant-toddler educational setting or a licensed family child care setting. (Completion of HMNS 2100 recommended.) Note: Grade of C or better required for Human Services program students. Lecture: 3 hours

HMNS 2200 - Assessment Interviewing for Treatment Planning  
(3 Credits)  
This course provides an in-depth study of the interviewing process, including methods for creating client safety and rapport and most importantly how to obtain and assess client information. Data collection and client assessment are the initial steps in the social service process, therefore this is the first course in the social work, mental health, gerontology and substance abuse concentrations for teaching appropriate intervention skills. Students are taught how to use the interviewing process to initiate helping strategies for use in a variety of mental health and social service settings. This course is a prerequisite for HMNS-1200. Note: Grade of C or better required for Human Services program students. Lecture: 3 hours

HMNS 2220 - Social Work Program and Policy Analysis  
(3 Credits)  
This course critically analyzes the values, theories, history, economics and politics associated with the development, implementation and evaluation of social policies and programs. Special attention is given to policies in the areas of poverty, education, health, race and sex. In addition to understanding the forces and processes that establish or change social policies, emphasis is placed on the systematic analysis of both existing and proposed social policy. Students will review current trends in national social policies and their effect on state/federal programs with particular
attention to oppressed populations. This course places heavy emphasis on critical analysis. Students will learn to build on their skills in analyzing and critiquing various social policies. (Prerequisite: SOCS 1010, HMNS 1010, 1200, 2110, 2200) Note: Grade of C or better required for Human Services program students. Lecture: 3 hours

**HMNS 2230 - Individuals, Families and Small Groups**  
(3 Credits)  
This course examines how biological, psychological, social and cultural influences affect the behavior of individuals and families. Emphasis is placed on how human behavior is affected by social context and the forces of oppression as well as the impact of oppression on women, lesbians and gay men, persons with physical disabilities and the aged. Skills required to work with these populations, using an ecological/generalist person in environment approach, are discussed. (Recommended prerequisites: HMNS 1010, HMNS 1200, HMNS 2110, PSYC 2020, PSYC 2030, BIOL 1010 recommended). Note: Grade of C or better required for Human Services program students. Lecture: 3 hours

**HMNS 2290 - Driver and Traffic Safety Education**  
(3 Credits)  
This course will prepare Certified Teachers to deliver the RI Driver and Traffic Safety Education Curriculum in compliance with those requirements set forth by the RI Department of Motor Vehicles and the Office of Higher Education. Completion will carry Lifetime Certification. In order to be eligible for certification in this new area, students must already be BA/BS Certified Teachers.

**HMNS 2310 - Field Experience Seminar II-Child Development**  
(3 Credits)  
This course provides a school or community based placement (as arranged by the instructor) to assist students in refining caregiving and teaching skills developing competencies related to assessing the needs of children from birth to age eight. Students advance their skills for developing appropriate curriculum and activities for young children and continue the development of their professional portfolio. Students are expected to complete 78-90 hours of supervised placement on the designated days and times as noted upon course registration. Students are required to complete a BCI (Bureau of Criminal Identification) background check and should be up to date with immunizations. (Prerequisites: HMNS 1010, 2100, 1210. Corequisite: HMNS 2120) Grades of C or better required for Human Services program students.

**HMNS 2320 - Field Experience Seminar II-Education/Special Needs**  
(3 Credits)  
This course places students in a school or community-based placement (as arranged by the instructor). Students refine skills of behavior management, assessment, instructional methodology and lesson development in settings for typical and special needs children and adults. Students learn how to work with individuals and small groups while initiating larger group control. Students will complete 78-90 hours of supervised placement on the designated days and times as noted upon course registration. (Prerequisites: HMNS 1010, 2060 or 2070, 1220) Grades of C or better required for Human Services program students.

**HMNS 2340 - Field Experience Seminar II-Social Work and Gerontology**  
(3 Credits)  
This course involves students in a setting and seminar to refine their intake and communication skills (both written and verbal) and to develop basic tools for client advocacy, assessment and intervention. Students learn intermediate level strategies for meeting physical, social-emotional and cognitive needs of clients in agency and community settings. Students demonstrate an increasing awareness of ethical issues including confidentiality, dual relationships and countertransference. Students will complete 78-90 hours of supervised placement on the designated days and times as noted upon course registration. (Prerequisites: HMNS 1010, 2200, 1200) Grades of C or better required for Human Services program students.

**HMNS 2360 - Field Experience Seminar II-Mental Health/Substance Abuse**  
(3 Credits)  
This course places student in a mental health or substance abuse setting. Through a combination of field experience and seminar, students refine their intake assessment, prevention and intervention skills in ways that allow them to begin taking a more active role in meeting the needs of clients in mental health and substance abuse settings. Students will complete 78-90 hours of supervised placement on the designated days and times as noted upon course registration. (Prerequisites: HMNS 1010, 2200, 1200) Grades of C or better required for Human Services program students.

**HMNS 2410 - Field Experience Seminar III-Child Development**  
(3 Credits)  
This course provides a school or community based-placement (as arranged by the instructor) and seminar to assist students in advanced refinement of caregiving and teaching skills and for the delivery of developmentally appropriate curriculum and assessment that meets the individual and group needs of children from birth to age eight. This competency-based progression culminates in students' taking an active role within their placement site.
as they prepare to enter the workforce. Students complete their professional portfolio. (Prerequisites: HMNS 1010, 1210, 2100, 2120, 2310) Grades of C or better required for Human Services program students.

HMNS 2420 - Field Experience Seminar III-Education/Special Needs
(3 Credits)
This course places students in a school or community-based placement (as arranged by the instructor) and a field setting and seminar to assist students in further developing and refining instructional techniques, behavioral strategies and lesson development and implementation for individual, small and large groups of typical and special needs students of all ages. The construction and presentation of lesson plans that include instructional objectives and learning outcomes are achieved in accordance with the RI Teacher Preparation Standards. Students should be able to demonstrate a teaching style that promotes the physical, intellectual, language, social and emotional development of students. Students will complete 78-90 hours of supervised placement on the designated days and times as noted upon course registration. (Prerequisites: HMNS 1010, 2060 or 2070, 1220, 2320) Grades of C or better required for Human Services program students.

HMNS 2440 - Field Experience Seminar III-Social Work and Gerontology
(3 Credits)
This course provides a field location and seminar where students are expected to utilize advanced skills and clinical supervision acquired thus far to demonstrate increased ability to assess, plan and perform independently in response to clients serviced in social work and gerontology settings. Students will complete 78-90 hours of supervised placement on the designated days and times as noted upon course registration. (Prerequisites: HMNS 1010, 1200, 2200, 2340) Grades of C or better required for Human Services program students.

HMNS 2460 - Field Experience Seminar III-Mental Health and Substance Abuse
(3 Credits)
This course provides a field location where students are expected to demonstrate refined skills and an increased ability to operationalize knowledge gained thus far in their program to meet the physical, emotional, cognitive and clinical needs of clients served by mental health and substance abuse service providers. Students demonstrate an increased ability to assess, plan and perform independently in mental health and substance abuse settings. (Prerequisites: HMNS 1010, 1200, 2200, 2360) Grades of C or better required for Human Services program students.

HMNS 2515 - Major Health Issues for the Elderly: Implications for Human Services
(3 Credits)
Major Health Issues for the Elderly: Implications for Human Services is a course that provides general information regarding health issues surrounding the aging and elderly to include Alzheimer’s and Dementia related diseases, Parkinson’s disease, incontinence, cancer, heart disease, arthritis, vision and eye diseases, diabetes, sleep disorders, depression, hearing loss, osteoporosis and lung disease. Students will explore, discuss and reflect on the most common health concerns affecting the aging and elderly as it relates and affects the human service worker as the helping professional. Implications will be examined and discussed for supporting health, safety, wellbeing, independent living, caregiver support and the role of the human service worker as part of a multidisciplinary collaborative approach in preparation for working with this population.

HMNS 2520 - Social and Psychosocial Characteristics of Aging
(3 Credits)
Social and Psychosocial Characteristics of Aging provides competency-based approach to understanding the social and psychological characteristics and effects of aging. Students will examine theorist perspectives on aging and gain insight into the implications of living longer as myths of aging are dispelled and realities are discussed. Special emphasis is placed on social and political issues, global trends, cross-cultural view of Elder’s roles, and quality of life experiences. Additional focus will be paid to special populations to include grandparents as second time parents, women, and veterans. Students will demonstrate competencies in understanding ethical human services approaches regarding critical and relevant issues such as how aging and older adults are studied, social and psychological challenges with aging, independent living and social interactions, death and dying, and social supports. Note Grade of “C” or better is required for Human Service program students (Prerequisites: HMNS 1010). Lecture: 3 Hours

HMNS 2530 - Legal & Financial Literacy Human Service Resource
(3 Credits)
Legal and Financial Literacy: Human Service Resource is designed to introduce students to legal and financial literacy supports that are in place to strengthen advocacy practices. Students will explore common concerns, discuss and dispel myths, while examining best practices for identifying and accessing legal and financial services in support of the elderly client. Relevant discussions surrounding healthcare expenditures for older adults, Medicare, Medicaid, Certified Elder Law Attorney (CELA), durable power of attorney, assets, trusts, guardianship, timing and satisfaction of retirement, the older employed economic status and asset awareness. Note Grade of “C” or better is required for Human Service program students (Prerequisite: HMNS 1010) Lecture: 3 Hours
HMNS 2540 - Human Services Advocacy for Aging and Elderly  
(3 Credits)  
Human Services Advocacy for Aging and Elderly focuses on the role of the human service worker in coordinating and collaborating multidisciplinary and interdisciplinary approaches to advocating best ethical practices for the aging and elderly client. Students will examine case studies to identify and discuss challenges and barriers often experienced by the older adult. Note Grade of “C” or better is required for Human Services program students.

HMNS 2590 - Service Practicum in Gerontology  
(3 Credits)  
Students will develop and refine observation, communication, working relations, presentation, writing, and service skills appropriate for entry-level placement in a gerontology service agency. Students will complete a minimum of 50 hours of volunteer service 25 hours in direct care, 25 in non-direct care within the gerontology community of agencies. Students are required to have a BCI (Bureau of Criminal Investigation) background check and should be up to date with immunizations. Note: Grade of “C” or better is required for Human Service program students (Prerequisite: HMNS 1010, HMNS 2200) Lecture: 3 Hours

HMNS 2710 - Diversity and Cultural Competency Skills  
(3 Credits)  
This course provides students with an awareness of the historical, cultural, socio-economic, biological and psychosocial influences that define diversity. Students learn skills critical to becoming culturally competent and sensitive to diversity. Students develop core competencies to communicate more effectively with diverse populations, to foster inclusive attitudes in the classroom and to work more effectively toward the elimination of racism and other forms of discrimination in public education and social service delivery systems. A 12 hour practicum is required to meet the artifact requirement for education majors planning to transfer. (Corequisite: HMNS 2060 or 2070 or permission of instructor) Grade of C or better is required for Human Services program students. Lecture: 3 hours

HMNS 2900 - Human Services Capstone  
(3 Credits)  
The Human Services Capstone course is designed to integrate the student's comprehensive knowledge gained through the learning experiences involved in the pursuit of the Human Services program curriculum. Students will draw upon knowledge and skill gained in their Human Services and General Education requirements to prepare comprehensive and integrated solutions to case study problems presented in class. A large part of learning will come from students' small group work, taking advantage of each others' collective knowledge and skill, integrating both educational and social services curricula. Grade of C or better is required for Human Services program students.

HOSP (Hospitality)

HOSP 1010 - Lodging Management I  
(3 Credits)  
This course introduces the student to an overview of the lodging management industry, including the organization of guest services and hospitality careers, as well as front office cycle and housekeeping operations. Lecture: 3 hours

HOSP 1020 - Lodging Management II  
(3 Credits)  
This course builds on the concepts and principles presented in the Level 1 course and includes the areas of leadership/management, hospitality marketing and sales and the food and beverage service industry. (Prerequisite: HOSP 1010) Lecture: 3 hours

HSTO (Histotechnician)

HSTO 1310 - Introduction to Histology  
(3 Credits)  
Students are introduced to the procedures involved in the initial accessioning, evaluation, processing and slide preparation of various surgical and autopsy specimens. Additional topics such as safety/infection control and instrumentation are included. (Prerequisite: Enrollment in Histotechnology Program)
HSTO 1320 - Histotechnology II  
(6 Credits)  
This course explores the principles and techniques associated with routine histological procedures as well as laboratory mathematics. The histology laboratory prepares tissues from surgical procedures and autopsies for microscopic examination by a pathologist. This course provides students with an opportunity to develop entry-level skills under the supervision of a licensed histotechnician, in a clinical setting. Skills are obtained through observation and performance of basic histological procedures. Students will also attend lecture to provide the opportunity to integrate theory and practice to various clinical scenarios. Lecture: 3 hours, Clinical: 120 hours

HSTO 2310 - Histotechnology III  
(9 Credits)  
This course provides practical application of principles and techniques of histological practice. The clinical setting provides realistic conditions under which a histotechnician functions and allows students to refine those skills acquired in Histology II. Students are introduced to the procedures involved in the embedding, cutting H&E staining and evaluation of various surgical and autopsy specimens. Students will also experience special stains for various tissue components including connective tissues, Amyloid and Carbohydrates. (Prerequisite: HSTO 1320)

HSTO 2320 - Histotechnology IV  
(12 Credits)  
This course provides practical application of principles and techniques of advanced histological procedures. The clinical setting provides realistic conditions under which a histotechnician functions and allows students to refine skills acquired in Histology III. Students will refine skills in embedding, cutting tissue sections, H&E staining and evaluation of various surgical and autopsy specimens. Students experience special stains for pigments, minerals, microorganisms and Neuropathology. Students are introduced to the special procedures such as Immunohistochemistry, Enzyme Histochemistry and Electron Microscopy. (Prerequisite: HSTO 2310)

HSTO 2330 - Histology Seminar  
(2 Credits)  
This course provides students with an extensive review, as well as assistance in the preparation of a portfolio. Guest lecturers discuss advanced topics in histology and professional issues. (Corequisite: HSTO 2320)

INST (INST - Process Control Tech.)

INST 1010 - Introduction to Instrumentation Technology  
(3 Credits)  
This course stresses the theory and practical application of mechanical and electrical sensing devices and control systems. Topics covered include sensing and control devices for temperature, humidity, pressure, level and flow. In addition, calibration procedures are covered. Lecture: 2 hours, Lab: 2 hours

INTC (INTC - Health Care Interpreter)

INTC 1300 - Health Care Interpreter I  
(7 Credits)  
This course prepares students who are bilingual to develop awareness, knowledge, and skills necessary for effective language interpretation in health care settings. Emphasis includes the roles and responsibilities of a health care interpreter, basic knowledge of common medical conditions, treatments and procedures, insight in language and cultural nuances for specific communities necessary in the art of interpretation. Field work experiences will provide opportunities for students to observe a competent health care interpreter. Lecture: 6 hours, Clinical: 3 hours

INTC 1310 - Interpreting in Health Care II  
(8 Credits)  
This course prepares individuals who are bilingual to become integral members of the health care team by bridging the language and cultural gap between clients and providers; this is a critical aspect of health care. Interpreting skills learned in INTC 1300 are further enhanced, covering specialized health care service areas such as genetics, mental health, and death and dying. Emphasis is also placed on the development of cultural competency in the community and workplace, and careers in interpretation. Field work experience is included to enable students the opportunity to demonstrate application of knowledge and technical interpreting skills to facilitate linguistic and cultural communication between client and health care providers. (Prerequisite: INTC 1300). Lecture: 6 hours, Clinical: 6 hours
## ITAL (Italian)

### ITAL 1000 - Basic Spoken Italian I
(3 Credits)
This is an introductory elective course for beginners emphasizing correct pronunciation and basic vocabulary for practical use in everyday conversational situations and travel dialogues. Students with no previous study of the language are prepared to use and understand it within a limited context and basic structure. Lecture: 3 hours

### ITAL 1010 - Elementary Italian I
(3 Credits)
This course covers elements of the Italian language for beginning students who have had little or no preparation. Conversation, pronunciation, reading, writing and grammar are covered. Aspects of Italian culture are included in the course. Lecture: 5 hours

### ITAL 1020 - Elementary Italian II
(3 Credits)
This is a continuation of Elementary Italian I (ITAL 1010). (Prerequisite: ITAL 1010, ITAL 1030 or its equivalent) Lecture: 5 hours

### ITAL 1030 - Elementary Italian I
(3 Credits)
Italian 1030 is a faster paced version of Italian 1010. This course is suitable for students with previous experience i.e. Basic spoken Italian and/or other prior formal study of the language, prior formal study of another foreign language, or informal experience with a foreign language. The course covers elements of the language including: conversation, pronunciation, reading, writing, and grammar. Aspects of Italian-speaking cultures are also included. Note: Course content is the same as Italian 1010 with two fewer hours per week. (Prerequisite: Prior preparation as noted above or permission of instructor). Lecture: 3 hours

### ITAL 1040 - Elementary Italian II
(3 Credits)
This is a continuation of Elementary Italian I (ITAL 1030). (Prerequisite: ITAL 1030, ITAL 1010 or its equivalent) Lecture: 3 hours

### ITAL 1510 - Conversational Italian I
(3 Credits)
This course further develops students' fluency in speaking Italian. Oral practice includes active use of the language in short dialogues stressing basic communication and correct pronunciation. Reading of easy cultural texts also provides material for conversation and discussion. (Prerequisite: Two years of high school Italian or one year of college Italian or the equivalent). Lecture: 3 hours

### ITAL 1900 - The Italian Heritage
(3 Credits)
This course introduces students to the cultural development of the Italian people through the centuries. Guest lecturers and class discussion center on significant aspects of Italian literary, social and artistic life as they have contributed to Western Civilization. Audio-visual aids present the lives and works of great figures and are used for appreciation of Italian art, music, food and wine. Italian films viewed in class are a backdrop for discussing the Italian cinema. The history and cultural contributions of Italian-Americans are also included from the discovery of America to mass immigration to present times. Note: The course is conducted in English. Lecture: 3 hours

### ITAL 1910 - Italian Culture-Cuisine
(1 Credit)
The Italian Culture-Cuisine course offers students the opportunity to participate in the CCRI Summer Travel/Study Program in Italy; to enhance their educational, professional and personal growth through a multidisciplinary approach to learning and a complete immersion in the Italian language and culture. The course combines linguistic, artistic, historical, and literary traditions and hands-on workshops of the rich culinary traditions of Central Italy and other regions of Italy. Lecture: 6 hours, Lab: 9 hours (2 weeks)

### ITAL 1950 - Italian for Business and Travel
(1 Credit)
This course is designed particularly for employees of travel agencies, those in wholesale/retail or import/export businesses and those individuals who are planning a cultural trip to Italy. The course is tailored to the needs of the individual who wants to gain knowledge and appreciation of the Italian
**ITAL 2010 - Intermediate Italian I**  
(3 Credits)  
This course helps students develop skill in reading and discussing Italian texts related to culture and literature. It is supplemented by further work in grammar, conversation and composition. (Prerequisite: ITAL 1020 or 1040 or its equivalent) Lecture: 3 hours

**ITAL 2020 - Intermediate Italian II**  
(3 Credits)  
This is a continuation of Intermediate Italian I (ITAL 2010). (Prerequisite: ITAL 2010 or its equivalent) Lecture: 3 hours

**ITAL 2210 - Italian Conversation and Composition I**  
(3 Credits)  
This is an intensive course in conversation and composition. Selected cultural videos, CDs, readings and classroom discussions provide an atmosphere to develop and improve speaking and understanding of Italian. Oral presentations and written compositions are required. (Prerequisite: ITAL 2010 or permission of instructor) Lecture: 3 hours

**ITAL 2220 - Italian Conversation and Composition II**  
(3 Credits)  
This course is a continuation of Italian Conversation and Composition I (ITAL 2210). (Prerequisite: ITAL 2210 or permission of instructor) Lecture: 3 hours

**JAPN (Japanese)**

**JAPN 1000 - Basic Spoken Japanese I**  
(3 Credits)  
This is an introductory elective course for beginners emphasizing correct pronunciation and basic vocabulary for practical use in everyday conversational situations and travel dialogues. Students with no previous study of the language are prepared to use and understand it within a limited context and basic structure. Lecture: 3 hours

**JAPN 1100 - Basic Spoken Japanese II**  
(3 Credits)  
This is a continuation of Basic Spoken Japanese I (JAPN 1000). (Prerequisite: JAPN 1000 or equivalent) Lecture: 3 hours

**LAWS (Law)**

**LAWS 1000 - Introduction to Law Enforcement**  
(3 Credits)  
This course examines the history and philosophy of the role of police in society. It surveys organizational structures and basic procedures of police work, police ethics and major problems confronting the law enforcement profession. Students examine international, federal, state and local law enforcement agencies, identifying the origin, jurisdiction, mission and functions of each. Lecture: 3 hours

**LAWS 1010 - Criminal Law**  
(3 Credits)  
This course is a study of crimes from early English common law to modern American criminal law including common law and statutory offenses. Criminal intent, criminal act and causation are thoroughly analyzed. General definitions of crimes, classifications of crimes, parties to crimes and common defenses such as insanity and self-defense are considered. Lecture: 3 hours

**LAWS 1020 - Criminal Procedure**  
(3 Credits)  
This course presents an overview of the criminal justice system, including an examination of the organization and jurisdiction of federal, state and local courts and law enforcement agencies. The arrest, arraignment, plea, preliminary hearing, bail, grand and petit jury proceedings, verdict, sentence and petitions for new trial are studied together with the jurisdiction of the courts on all levels. Lecture: 3 hours
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAWS 1030</td>
<td>Criminalistics I</td>
<td>3</td>
<td>This course surveys basic crime scene investigation methods. Topics include first responder duties, evidence collection and processing, photography, impression evidence, blood analysis, trace evidence, arson investigation and casting methods for impression evidence. Students complete projects involving plaster casting and crime scene sketching. A mock crime scene investigation is conducted. Lab fee required. Lecture: 3 hours - Lab Fee: $20</td>
</tr>
<tr>
<td>LAWS 1040</td>
<td>Criminalistics II</td>
<td>3</td>
<td>This course is an advanced study of criminalistics. Topics include the investigation of specific crimes (sexual assault, homicide, burglary and auto theft); alcohol and drug detection; firearms investigations; advanced latent fingerprint techniques; and forensic entomology. Lab fee required. (Prerequisite: LAWS 1030) Lecture: 3 hours - Lab Fee: $20</td>
</tr>
<tr>
<td>LAWS 1080</td>
<td>Introduction to Paralegal Studies</td>
<td>3</td>
<td>This course is designed to provide an overview of the functions of paralegals/legal assistants within the legal environment. It will also include material on the organization and structure of law firms, legal ethics, various types of legal practice and use of computers in the legal environment. Background material on federal and state constitutional law, statutory law and court decisions is provided as a foundation for other law courses required in the Paralegal Studies Program. Lecture: 3 hours</td>
</tr>
<tr>
<td>LAWS 2000</td>
<td>Constitutional Law</td>
<td>3</td>
<td>This class presents a view of the role of the Supreme Court in its interpretation of the United States Constitution. Areas to be scrutinized include judicial review, federalism, civil liberties and the Bill of Rights (through the 14th Amendment) as it applies to the states. Case and text method. Lecture: 3 hours</td>
</tr>
<tr>
<td>LAWS 2010</td>
<td>Law of Evidence</td>
<td>3</td>
<td>This course is a study of the body of rules governing the admissibility of evidence at trial. The nature of evidence; circumstantial and direct evidence; testimonial, documentary and real evidence; hearsay and the exceptions thereto; the presentation of evidence and the rules on relevancy; and Lastly, competency, credibility and impeachment of witnesses are examined. Lecture: 3 hours</td>
</tr>
<tr>
<td>LAWS 2020</td>
<td>Basic Civil Procedures for Paralegals</td>
<td>3</td>
<td>This course introduces the legal concepts and practical applications of civil litigation using the rules of civil procedure as applied in the federal and state court systems. The course will cover the court system; jurisdiction and venue; pleadings (complaints, answers, counterclaims and cross-claims); and discovery documents (interrogatories, depositions and requests for production). (Prerequisite: LAWS 1020 and LAWS 1080 or permission of instructor) Lecture: 3 hours</td>
</tr>
<tr>
<td>LAWS 2030</td>
<td>Criminal Law and the Constitution</td>
<td>3</td>
<td>This course presents a consideration and analysis of the most significant and recent Supreme Court decisions as they pertain to the rights of the accused in the areas of arrest, search and seizure, interrogation and right to assistance of counsel. Case and text method. Lecture: 3 hours</td>
</tr>
<tr>
<td>LAWS 2040</td>
<td>Law and Society</td>
<td>3</td>
<td>This course studies adjudicated cases involving the leading social issues affecting society today and the impact such adjudications have had upon that society. Stress is placed upon the relationship of law to social values and morals. The delicate balance between the interests of society and individual rights is scrutinized and the students' views as to the maintenance of the balance is evaluated in the light of the cases studied. Lecture: 3 hours</td>
</tr>
<tr>
<td>LAWS 2050</td>
<td>Law of Contracts</td>
<td>3</td>
<td>This course studies the legal rules, concepts and terminology relating to voluntary agreements entered into for the provision of services or the sale of property. The areas included are agreement, consideration, contractual capacity, legality, genuineness of assent and legal form. Lecture: 3 hours</td>
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<tr>
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<tr>
<td>LAWS 2060</td>
<td>The Law of Property, Estates and Trusts</td>
<td>3</td>
<td>This course studies the laws of real property, personal property and decedent's estates. Topics to be covered include definitions of real and personal property; the ownership and transfer of real estate (concurrent ownership, deeds, mortgages and leases); and the areas of gifts, wills, inheritance laws, probate and trusts. Lecture: 3 hours</td>
</tr>
<tr>
<td>LAWS 2070</td>
<td>Law of Business Organization</td>
<td>3</td>
<td>This course covers the law of agency (principal-agent relationships and independent contractors), federal and state employment law and the law regarding legal forms of business (sole proprietorships, partnerships of various kinds, corporations and limited liability companies). Lecture: 3 hours</td>
</tr>
<tr>
<td>LAWS 2090</td>
<td>Legal Research and Writing</td>
<td>4</td>
<td>This course for Paralegal Studies majors covers legal research using primary sources (statutes, court decisions, and regulations); case digests and finding aids; secondary legal sources (encyclopedias, treatises and annotations); and citators (Shepard's Citations and WestLaw's KeyCite). Emphasis is on legal research using computer-assisted legal research (CALR) tools. Students are expected to complete a full legal research project and write a legal memorandum. (Prerequisites: LAWS 1080 and 24 credit hours earned or permission of instructor) Lecture: 4 hours - Lab Fee: $20</td>
</tr>
<tr>
<td>LAWS 2100</td>
<td>Law of Torts</td>
<td>3</td>
<td>Law of Torts involves the study of civil wrongs that result in personal injury, property damage or economic injuries. This course deals with areas of negligence, intentional torts and strict liability torts. It will also cover topics of professional malpractice, products liability and premises liability. (Prerequisite: LAWS 1020 or LAWS 1080 or permission of instructor) Lecture 3 hours</td>
</tr>
<tr>
<td>LAWS 2500</td>
<td>Case Studies in Criminal Law</td>
<td>3</td>
<td>This capstone course in the Law Enforcement program will integrate the material covered in prior classes in the areas of substantive criminal law, criminal procedural law, crime scene investigation, evidentiary law and constitutional law related to law enforcement. Students will work on and write reports on two case studies based upon comprehensive case files. These case files will include documents that would be involved in an actual criminal case such as bills of indictment, police reports, witness statements, forensic reports, search warrant affidavits and inventories, transcripts of court hearings involving the case and the substantive criminal laws that may apply to the facts of the case. Lecture: 3 hours</td>
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<tr>
<td>LEGL (Legal Office Administration)</td>
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<tr>
<td>LEGL 2310</td>
<td>Legal Forms and Terminology</td>
<td>2</td>
<td>This course studies forms used by attorneys in legal and business transactions. An explanation of the origin and use of the forms introduces terminology in which the legal assistant should be versed. Discussions and simulations revolve around legal terms in the context of a variety of legal documents such as complaints, motions, stipulations and contracts. Lecture: 2 hours - Lab Fee: $20</td>
</tr>
<tr>
<td>LEGL 2420</td>
<td>Legal Office Administration</td>
<td>2</td>
<td>This course prepares students to work as legal administrative assistants in a variety of law office environments. Procedures followed by attorneys in various specialties of the law are covered including litigation, real estate law, criminal law, wills and estates and many other areas of the law. Students also become familiar with the court system. Lecture: 2 hours - Lab Fee: $20</td>
</tr>
<tr>
<td>LIBA (Liberal Arts)</td>
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<tr>
<td>LIBA 1000</td>
<td>The Learner's Journey: Critical Thinking and Learning Strategies for College</td>
<td>3</td>
<td>This fully transferable, seminar-style course has been designed to help students maximize their effectiveness in the classroom, and, in turn, enhance their entire college experience. In The Learner's Journey, students develop their critical thinking, reading and writing skills; acquire valuable strategies for analyzing course content and for expressing themselves more confidently and effectively; improve their writing, presentation, collaboration and research skills; and learn to make connections between courses in different disciplines. Through readings, discussions and active participation, students take ownership of their education and find their voices as learners in a higher education environment.</td>
</tr>
</tbody>
</table>

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LIBA 1010 - Cooperative Work Experience I  
(4 Credits)  
Cooperative work experience provides students with an opportunity to observe and participate in a work environment related to their academic interests or explore advancement in their current career. Students work approximately 15-20 hours a week at an approved site and participate in an on-line seminar or a one-hour and 40-minute weekly seminar on campus. (Note: LIBA 1010 for Allied Health, Chemical Technology, Computer Science, Engineering, Fine Arts, Fire Science, General Studies, Human Service, Liberal Arts, Paralegal Studies and Law Enforcement) (195 hours work placement / 25 hours seminar)

LIBA 1020 - Cooperative Work Experience II  
(4 Credits)  
This is an extension of LIBA 1010 in which students develop an in-depth knowledge of specific content areas and demonstrate increased levels of expertise. Students work approximately 15 to 20 hours a week at an approved site and participate in a one-hour and 40-minute weekly seminar on campus or online. For information regarding prerequisites, please contact the Career and Internship Office at 401-825-2327 or 401-333-7326. Note: LIBA 1020 is for students in Allied Health, Chemical Technology, Computer Science, Engineering, Fine Arts, Fire Science, General Studies, Human Service, Industrial Technology, Liberal Arts, Nursing, Paralegal Studies and Law Enforcement. Work placement: 195 hours; Seminar: 25 hours.

LIBA 2030 - Honors Colloquium  
(3 Credits)  
This Honors Colloquium is a discussion-based, research-oriented, multidisciplinary course in which students pursue individual topics of relevance to today’s society under the guidance of faculty. The curriculum, which follows the Phi Theta Kappa Honors Program, includes guest speakers and multimedia presentation in addition to lecture and discussion. The study topic will change every two years. Prerequisite: ENGL 1010 with a grade of C or better. Lecture: 3 hours

LRCT (Library)

LRCT 1010 - Introduction to College Research  
(1 Credit)  
This course will introduce students to online strategies for locating and evaluating articles, books, and Web resources. Students will learn to cite their sources according to standard scholarly formats.

LRCT 1015 - College Research  
(3 Credits)  
College Research will expand the student’s knowledge of various types and formats of information resources. Students will learn information literacy skills including advanced search techniques and evaluation of resources. Students will also gain a greater understanding of issues associated with the ethical use of information. Students will demonstrate the application of learned skills in research for class assignments, as well as for personal and professional research needs. Lecture: 3 hours

LRCT 1020 - College Success  
(3 Credits)  
This course will give new students practical tips and strategies that will help them succeed in college. Emphasis is on attitude, study habits, time and stress management. In a setting of active and collaborative learning, students are engaged in a variety of instructional experiences, including discussions with reading, speaking, writing and listening assignments. The course will require the creation of a personal success plan that will include educational and career goals and will introduce and make use of the college's resources and personnel.

MATH (Mathematics)

MATH (MATHEMATICS)

Math Placement Test  
Math placement tests are required of all students who wish to enroll in their first math course at CCRI. Students are required to take the placement test either before or at the beginning of the semester in which they wish to take their first math course. Students who are not enrolled in a math course but want to plan for the future are encouraged to take the placement test during the semester prior to enrolling in a math course.

Placement test preparation assistance is available here.
Note: Developmental math courses are designed to build/refresh basic mathematical skills which provide the necessary background for college-level mathematics courses. All students must demonstrate mental calculation skills and mastery of course content to complete the courses successfully.

College-level math courses require the use of mental calculation skills since each course builds upon the material learned in the prerequisite courses.

Students with a documented disability should meet with a representative from the Office of Disability Services for Students. CCRI will make modifications to academic requirements where appropriate and provide the necessary accommodations to ensure accessibility. The institution cannot, however, make modifications that would substantially change the essential elements of the curriculum. While striving to meet the individual needs of all students, CCRI reserves the right to set and maintain academic standards for performance and personal conduct.

SEQUENCES OF CCRI MATH COURSES
Math Pathways

Here are links to grids of our math courses for Fall 2018:

Math Course Flow Chart
Math Course Flow Chart for STEM

Picking the right math courses to start your academic career at CCRI can help you move more quickly towards graduating, transferring, or moving into a career.

If you’re interested in a career or transfer program use this page to help choose your path.

In-house Credit

In-house credits are counted for full- and part-time status and for reasons of financial aid and academic progress. They are not counted in overall GPA, do not count toward any degree or certificate and will appear on student transcripts as “exclude credit.”

IMPORTANT INFORMATION
Preparation

Prerequisites for each course are fulfilled only by a grade of C or better or by a sufficient placement test score. The Math Department strongly recommends courses and their prerequisites be taken sequentially in consecutive sessions.

MATH 0200C - Support for College Algebra
(2 Credits)
This course provides active support for students taking Math 1200 through the use of a just in time remediation approach. Students in this class will also be taking Math 1200 with the same instructor concurrently. The additional two hours per week allows for time to practice what has been learned in Math 1200 and it allows for more question and answer sessions. Instructors may use class time for supplementary instruction, group work or one on one support. Corequisite: MATH 1200C.

MATH 0239C - Support for Liberal Arts Math
(2 Credits)
This course provides active support for students taking Math 1139 through the use of a just in time remediation approach. Students in this class will also be taking Math 1139 with the same instructor concurrently. The additional two hours per week is used to review and develop key mathematical skill necessary to fully succeed in Math 1139. Corequisite: MATH 1139C

MATH 0275C - Support for Statistics for the Health and Social Sciences
(2 Credits)
This course provides active support for students taking Math 1175 through the use of a just in time remediation approach. Students in this class will also be taking Math 1175 with the same instructor concurrently. The additional two hours per week is used to review and develop key mathematical skill necessary to fully succeed in Math 1175. Corequisite: MATH 1175C

MATH 1139C - Mathematics for Liberal Arts Students
(3 Credits)
This course deals with the fundamentals of logic, set theory, probability and statistics. Prerequisite: Math 0099 with a grade of C or better or placement into Grid 2. Corequisite: MATH 0239.
MATH 1175C - Statistics for the Health and Social Sciences  
(3 Credits)  
Statistical procedures required for the analysis of data are explored using data acquired from such fields as medicine, social work, biology, education and business and employing statistical packages as a tool. Prerequisite: Placement in ACCUPLACER Grid 2 or MATH 0099 with a grade of C. Corequisite: MATH 0275.

MATH 1200C - College Algebra  
(3 Credits)  
Designed for students who eventually plan to study quantitative business analysis or calculus, this course covers functions and graphs, systems of equations and inequalities, quadratic equations, polynomial and rational expressions, radical, exponential and logarithmic forms. Prerequisite: Placement in ACCUPLACER Grid 3 or MATH 0100, with a grade of C or better. Prerequisite: MATH 0200. Lecture: 4 hours.

MATH 0095 - Developmental Math Emporium  
(4 Credits)  
Math 0095 is the course students enroll in if they wish to complete their developmental mathematics requirements in the emporium. Students will progress through course modules under the supervision of a faculty member. Students will be awarded credit for MATH 0099, MATH 0100 or MATH 0101 depending on how much progress the students makes in the emporium. Prerequisites: Completion of, or concurrent enrollment in, ENGL 0850 earning a C or better; or, placement into ENGL 0890 or higher.

MATH 0099 - Early Foundations of College Mathematics  
(4 Credits)  
Early Foundations of College Mathematics (4 In-house Credits). This course provides a thorough foundation in the topics of whole numbers, fractions, decimals, ratios and proportions, percentages, and measurement. This course also introduces the real number system, the properties for solving linear equations and inequalities. Emporium students who complete the modules for Math 0099 may complete additional modules to earn credit for MATH 0100 or MATH 0101. Students who complete MATH 0099 are eligible to take Math 0100, Math 1005, 1025, 1139/0239 and 1175/0275. (Prerequisite: Placement in ACCUPLACER Grid 0 and Completion of, or concurrent enrollment in, ENGL 0850 earning a C or better; or, placement into ENGL 0890 or higher). Lecture or Emporium: 4 hours.

MATH 0100 - Foundations of College Math  
(4 Credits)  
This course provides a thorough foundation in the topics of whole numbers, fractions, decimals, ratios and proportions, percentages, and measurement. This course also introduces the real number system, the properties for solving linear equations and inequalities, the rearrangement of formulas, the rectangular coordinate system, and the graphs of linear equations in two variables as well as an introduction to basic probability and statistics. Non-STEM students who master this course are encouraged to enroll in MATH 1139 or MATH 1175. STEM students who master this course are encouraged to enroll in MATH 1200 / 0200. (Prerequisite: Placement in ACCUPLACER Grid 1 or MATH 0099 with a grade of C or better and Completion of, or concurrent enrollment in, ENGL 0850 earning a C or better; or, placement into ENGL 0890 or higher). Lecture or Emporium: 4 hours.

MATH 0101 - Foundations of College Algebra  
(4 Credits)  
This modular emporium course contains additional modules beyond those required for Math 0099 and Math 0100. This course serves as a remedial prerequisite to Math 1200 and Math 1179. Topics include the properties of exponents, and an introduction to polynomials, factoring, quadratic equations, rational expressions, equations and application problems.

MATH 0200 - Support for College Algebra  
(2 Credits)  
This course provides active support for students taking Math 1200 through the use of a just in time remediation approach. Students in this class will also be taking Math 1200 with the same instructor concurrently. The additional two hours per week allows for time to practice what has been learned in Math 1200 and it allows for more question and answer sessions. Instructors may use class time for supplementary instruction, group work or one on one support.

MATH 0239 - Support for Liberal Arts Math  
(2 Credits)  
This course provides active support for students taking Math 1139 through the use of a just in time remediation approach. Students in this class will also be taking Math 1139 with the same instructor concurrently. The additional two hours per week is used to review and develop key mathematical skill necessary to fully succeed in Math 1139.
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<tr>
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</thead>
<tbody>
<tr>
<td>MATH 0275</td>
<td>Support for Statistics for the Health and Social Sciences</td>
<td>(2 Credits)</td>
</tr>
<tr>
<td>MATH 1005</td>
<td>Business Mathematics</td>
<td>(3 Credits)</td>
</tr>
<tr>
<td>MATH 1015</td>
<td>Mathematics of Finance</td>
<td>(3 Credits)</td>
</tr>
<tr>
<td>MATH 1025</td>
<td>Introduction to College Mathematics</td>
<td>(3 Credits)</td>
</tr>
<tr>
<td>MATH 1138</td>
<td>Topics in Mathematics</td>
<td>(3 Credits)</td>
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<tr>
<td>MATH 1139</td>
<td>Mathematics for Liberal Arts Students</td>
<td>(3 Credits)</td>
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<tr>
<td>MATH 1145</td>
<td>Development of the Number System</td>
<td>(3 Credits)</td>
</tr>
<tr>
<td>MATH 1155</td>
<td>History of Mathematics</td>
<td>(3 Credits)</td>
</tr>
<tr>
<td>MATH 1175</td>
<td>Statistics for the Health and Social Sciences</td>
<td>(3 Credits)</td>
</tr>
<tr>
<td>MATH 1179</td>
<td>Applied Technical Mathematics I</td>
<td>(3 Credits)</td>
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</tbody>
</table>

**MATH 0275 - Support for Statistics for the Health and Social Sciences**

This course provides active support for students taking Math 1175 through the use of a just in time remediation approach. Students in this class will also be taking Math 1175 with the same instructor concurrently. The additional two hours per week is used to review and develop key mathematical skill necessary to fully succeed in Math 1175.

**MATH 1005 - Business Mathematics**

This application of elementary mathematics to business and retail situations is discussed. Topics include bank services, taxes, simple interest, commercial discounts, markup and markdown. Lecture: 3 hours.

**MATH 1015 - Mathematics of Finance**

This course studies in depth the topics of simple interest, bank discount, compound interest and annuities, including amortization and sinking funds.

**MATH 1025 - Introduction to College Mathematics**

Covering the development of the real number system and the fundamental concepts of algebra and geometry, this course is suitable for prospective elementary school teachers or anyone desiring an introduction to college mathematics.

**MATH 1138 - Topics in Mathematics**

This course is designed primarily for the liberal arts student who does not plan to pursue any continuing mathematics program. Each semester, different sections focus on different topics and are announced in the online course listing published each semester. The depth of the material is similar to that of MATH 1450.

**MATH 1139 - Mathematics for Liberal Arts Students**

This course deals with the fundamentals of logic, set theory, probability and statistics. Prerequisite: Math 0100 with a grade of C or better or placement into Grid 3.

**MATH 1145 - Development of the Number System**

Topics covered in this course include ancient numeration systems; bases; modulo arithmetic; set theoretical and historical development of our number system including natural numbers; integers; rational, irrational, imaginary and complex numbers (with operations and computation within each system); groups and fields; and elementary number theory (basic proofs, divisibility rules, Pythagorean studies, Fermat and Mersenne numbers).

**MATH 1155 - History of Mathematics**

This course traces the development of mathematical thought through history. Topics include mathematicians, primitive number systems and algorithms, early formulas for area and volume, roofs of theorems, pi, the golden ratio, the development of advanced mathematics, the computer, calculus, network theory and non-Euclidean geometries.

**MATH 1175 - Statistics for the Health and Social Sciences**

Statistical procedures required for the analysis of data are explored using data acquired from such fields as medicine, social work, biology, education and business and employing statistical packages as a tool. Prerequisite: Placement in ACCUPLACER Grid 3 or MATH 0100 with a grade of C or better or MATH 1025 with a grade of C or better.

**MATH 1179 - Applied Technical Mathematics I**

This course is the first semester of a two semester sequence covering the essentials of applied technical mathematics. Topics include the basics of working with numerical data, plane and solid geometric shapes, an introduction to functions and their graphs, factoring, operations with algebraic fractions, quadratic equations with real roots, an introduction to the trigonometric functions of acute angles, solving problems involving right triangles, expressions involving rational exponents and base ten logarithms.
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<tr>
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</thead>
<tbody>
<tr>
<td>MATH 1181</td>
<td>Applied Technical Mathematics II</td>
<td>3</td>
<td>This course is the second semester of a two-semester sequence covering the essentials of applied technical mathematics. Topics include graphing linear equations, solving systems of linear equations, using trigonometry to solve problems involving vectors, graphical analysis of waveforms, working with radical expressions, the complex numbers and their application to AC circuits, an introduction to statistics and some miscellaneous topics involving nonlinear equations.</td>
</tr>
<tr>
<td>MATH 1200</td>
<td>College Algebra</td>
<td>3</td>
<td>Designed for students who eventually plan to study quantitative business analysis or calculus, this course covers functions and graphs, systems of equations and inequalities, quadratic equations, polynomial and rational expressions, radical, exponential and logarithmic forms. (Prerequisite: Placement in ACCUPLACER Grid 4 or MATH 0101 with a grade of C or better). Lecture: 4 hours.</td>
</tr>
<tr>
<td>MATH 1220</td>
<td>Scientific Programming</td>
<td>3</td>
<td>This course offers instruction in scientific programming using a current programming language. Problems, both numerical and non-numerical, are programmed and solved by use of a mainframe and/or personal computers.</td>
</tr>
<tr>
<td>MATH 1240</td>
<td>Statistical Analysis I</td>
<td>3</td>
<td>An introduction to elementary statistics, this course covers methods used in the collection, presentation, analysis and interpretation of data. Topics include frequency distributions, measures of central tendency and dispersion and sampling, with emphasis on estimation and hypothesis testing.</td>
</tr>
<tr>
<td>MATH 1241</td>
<td>Statistical Analysis II</td>
<td>3</td>
<td>This course includes a study of simple and multiple linear regression, curvilinear regression, correlation analysis, basic designs of experiments, analysis of variance and an introduction to the concepts of time series and index numbers. A statistical package is used in the development and application of topics.</td>
</tr>
<tr>
<td>MATH 2077</td>
<td>Quantitative Business Analysis I</td>
<td>3</td>
<td>The purpose of this course is to develop the quantitative methods needed to solve various problems in business and economics. Topics include functions and graphs, systems of linear equations, linear programming, matrices and determinants, logarithmic and exponential functions and the mathematics of finance.</td>
</tr>
<tr>
<td>MATH 2103</td>
<td>Applied Precalculus</td>
<td>3</td>
<td>Math 2103 is intended for students in the life and social sciences, and any other areas where the application of mathematics is important. Students in this course will develop an understanding of functions and how they are used to model real world phenomena, including but not limited to change, motion and growth. The linear, quadratic, power, polynomial, rational, exponential, logarithmic, and period functions are studied in this course. Students will become familiar with algebraic, numerical and graphical properties of these functions. This course is not intended for students planning to study mathematics, statisticians, computer science, physical sciences, engineering or any other discipline requiring the complete calculus sequence. Math 2103 is not an alternative to Math 2111 (Precalculus) and does not satisfy the requirement for Math 2141 (Calculus I). (Prerequisite: Math 1200, Math 1201 or placement test) Lecture: 4 hours</td>
</tr>
<tr>
<td>MATH 2110</td>
<td>College Trigonometry</td>
<td>3</td>
<td>Designed for students who plan to study calculus eventually, this course deals with trigonometry from an analytical approach. Topics include relations and functions in general, the trigonometric functions and their inverses, graphs, solutions of triangles, vectors, trigonometric identities and equations and applied problems.</td>
</tr>
<tr>
<td>MATH 2111</td>
<td>Pre-Calculus Mathematics</td>
<td>4</td>
<td>Functions and their graphs are discussed with particular attention paid to polynomial, rational, trigonometric, exponential and logarithmic functions. Determinants, matrices, complex numbers and analytic geometry are also studied.</td>
</tr>
</tbody>
</table>
MATH 2131 - Applied Calculus  
(3 Credits)  
This course is intended for students in the life and social sciences who have taken Math 2013. The differential and integral calculus are developed with an emphasis on solving real world problems in the science. Limits, derivatives and integrals of algebraic, logarithmic, exponential and trigonometric functions are studied. Applications will include analyzing graphs, finding maximum and minimum values of functions, calculating rates of change and computing area and cumulative change. This course is not intended for students planning to study mathematics, statistcs, computer science, physical sciences, engineering or any other discipline requiring the complete calculus sequence. Math 2131 is not an alternative to Math 2141 (Calculus I) and does not satisfy the requirement for Math 2142 (Calculus II). (Prerequisite: Math 2103, Math 2111 or placement test) Lecture: 4 hours

MATH 2138 - Quantitative Business Analysis II  
(3 Credits)  
Differential and integral calculus are developed with special emphasis on practical applications to business and economics

MATH 2141 - Calculus I  
(4 Credits)  
Topics considered in this first course of differential and integral calculus include limits and continuity, first and higher-order derivatives with applications (including curve sketching), the differential and definite and indefinite integrals with applications (including areas and volume).

MATH 2142 - Calculus II  
(4 Credits)  
This course covers the calculus of logarithmic, exponential, trigonometric, inverse trigonometric and hyperbolic functions. Some methods of integration are covered, including integration by parts and numerical methods. L'Hospital's rule, improper integrals, infinite series and the calculus in polar coordinates also are introduced.

MATH 2243 - Calculus III  
(4 Credits)  
This course covers the calculus of three-dimensional space, including partial derivatives, multiple integrals and the calculus of vector-valued functions.

MATH 2362 - Advanced Engineering Mathematics  
(4 Credits)  
This course covers first-order ordinary differential equations, second-order linear differential equations, Laplace transforms and power series solutions. A unit on applied linear algebra is also included.

MATH 2500 - Applications in Science & Math  
(1 Credit)  
This capstone course is intended for students in their final semester of the Science program. It allows students an opportunity to demonstrate and integration of knowledge and abilities acquired in previous science and mathematics courses with added intent of developing new insights. Students read selected articles, such as those that come from scientific journals, in a variety of fields and then have the opportunity to collaborate with their peers honing writing, synthesis and presentation skills (Pre-requisites: Successful completion of a minimum of 21 general education credits and a minimum of 18 Science credits or permission of the instructor). - Lab Fee: $20

MEDL (Medical Office Administration)

MEDL 2350 - Medical Terminology  
(2 Credits)  
This course introduces medical, diagnostic, symptomatic and surgical terms. Literal definitions and spelling are stressed. Lecture: 2 hours

MEDL 2360 - Medical Document Processing  
(2 Credits)  
This course acquaints the medical administrative secretaries/assistants with formatting and editing skills needed for processing medical documents that are commonly part of their work environment. A job simulation project is the basis for these applications and is completed using Microsoft Word. Students continue to develop their keyboarding speed and accuracy. The keyboarding speed needed to pass this course is 30-55 wpm. (Prerequisite or corequisite: OFTD 1220 or permission of instructor) Lecture: 2 hours, Lab: 1 hour, Fall only - Lab Fee: $20
**MEDL 2380 - Medical Office Transcription I**
(3 Credits)
This course focuses on the skills a medical transcriptionist must possess in preparing for eventual employment in a private physician's office, clinic or hospital. Emphasis is placed on the efficient production of case histories and physical examinations, radiological reports, X-rays, operative reports, pathology reports, discharge summaries and autopsy reports from pre-recorded dictation material. (Corequisite: OFTD 1220 or permission of instructor) Lecture: 2 hours, Lab: 2 hours Fall only - Lab Fee: $20

**MEDL 2390 - CPT Medical Insurance Coding**
(3 Credits)
This course familiarizes students with Current Procedural Terminology (CPT) codes and modifiers along with their corresponding unique descriptions. Topics include use of guidelines, notes, index, appendices and modifiers and AMA documentation guidelines to ensure correct coding. OIG (Office of Inspector General) compliance for individual and small group physicians' practice is also included. (Corequisite: MEDL 2400, 2350). Lecture: 3 hours

**MEDL 2400 - ICD-CM Medical Insurance Coding**
(2 Credits)
This course familiarizes students with International Classification of Diseases and Clinical Modification codes (ICD-CM). An overview of the Tabular List (Volume I) and the Alpha Index (Volume II) will include coding fundamentals and conventions. Various coding scenarios challenge small student groups to apply techniques learned to code claims. (Corequisite: MEDL 2350 or permission of instructor) Lecture: 2 hours

**MEDL 2410 - Medical Insurance Billing**
(3 Credits)
This course prepares students for employment as medical insurance specialists in physicians' offices and clinics. Topics include the claim process, inpatient and outpatient billing, procedural coding and billing requirements of various health care providers. Lecture: 2 hours, Lab: 1 hour - Lab Fee: $20

**MEDL 2420 - Practical Applications in Professional Medical Coding**
(4 Credits)
This course advances the student’s knowledge of the Current Procedural Terminology (CPT), International Classification of Diseases (ICD), and Healthcare Common Procedure Coding (HCPC) code sets and outlines the application of the fundamentals of coding and documentation in the physician’s practice. This course prepares students for the American Academy of Professional Coders CPC Certification Examination. (Prerequisite MEDL 2390 and 2400) Lecture: 4 hours

**MEDL 2430 - Electronic Medical Records and Practice Management**
(3 Credits)
This course prepares students for employment within health care facilities. Topics include fundamentals of electronic medical records (EMR) management, integration of patient and provider information, clinical documentation, and effective office communication via an EMR system. This course will also prepare students to take the National Health Care Association’s Certified Electronic Health Records (CEHRS) Assessment to become CEHRS certified. Lecture: 3 hours - Lab Fee: $20

**MEDL 2480 - Medical Office Transcription II**
(2 Credits)
This is a continuation of the applications of medical transcribing skills learned in MEDL 2380 and provides a more in-depth understanding of medical terminology pertaining to the body systems. Medical reports are transcribed for individual case studies in patients with specific medical problems. In addition, outpatient medical reports are transcribed using the HPIP (history, physical, impression and plan) and SOAP (subjective, objective, assessment and plan) formats. (Prerequisite: MEDL 2380) Lecture: 2 hours, Lab: 1 hour, Spring only - Lab Fee: $20

**MEDL 2910 - Medical Cooperative Work Experience**
(3 Credits)
This is a planned and supervised cooperative work experience. Students are placed in a medical office during their last semester for the purpose of observing the operations and routines of that office. The opportunity to perform tasks required in a medical office is provided. Students attend class on campus during weeks one through five then work approximately 13 hours a week in an approved cooperative work experience placement during weeks six through 15. (Prerequisites: MEDL 2360 and 2380; enrollment in Administrative Office Technology program, completion of 24 credits in that program and 2.0 GPA or permission of instructor) Lecture: 1 hour per week for five weeks, CO-OP: 13 hours per week for 10 weeks
MLTC (MLTC - Clinical Laboratory)

**MLTC 1110 - Bacteriology**  
(4 Credits)  
The biological aspects of microbial structure, metabolism and growth are presented. Emphasis is on classification of microorganisms, mostly bacteria and identification of disease-producing organisms. (Prerequisite: Enrollment in Clinical Lab Tech program or department permission) Lecture: 2 hours, Lab: 4 hours - Lab Fee: $20

**MLTC 1120 - Clinical Immunology**  
(3 Credits)  
This course covers basic theories of immunology, laboratory diagnosis of infectious diseases and diseases of the immune system. Students learn to perform basic serological techniques. Note: This course is a prerequisite for MLTC 1160. (Prerequisite: Enrollment in Clinical Lab Tech program or department permission) Lecture: 2 hours, Lab: 3 hours - Lab Fee: $20

**MLTC 1130 - Phlebotomy for Medical Laboratory Technicians I**  
(1 Credit)  
This course covers principles of phlebotomy and specimen handling. Students perform venipuncture on training arms, venipuncture on adults, capillary punctures, isolation techniques, blood culture site preparation and specimen processing. Note: This course is a prerequisite for MLTC 1930. (Prerequisite: Enrollment in Clinical Lab Tech program or department permission) Lecture: 2 hours, Lab: 2 hours - Lab Fee: $10

**MLTC 1150 - Urinalysis**  
(3 Credits)  
The formation of urine and the principles of the laboratory procedures used in the physical, chemical and microscopic examination of urines are discussed. Normal values are presented and the significance of abnormal results explained. Complete urinalysis is performed in the training laboratory. Quality control in the urinalysis laboratory is performed and stressed. (Prerequisite: Enrollment in Clinical Lab Tech program or department permission) Lecture: 2 hours, Lab: 2 hours - Lab Fee: $20

**MLTC 1160 - Immunohematology**  
(3 Credits)  
This course covers red cell antigens and antibodies, antibody identification, crossmatching, donor processing and component therapy. Theory is presented in lecture and a laboratory experience enables students to apply these theories to routine laboratory procedures. (Prerequisite: MLTC 1120 or equivalent or permission of department) - Lab Fee: $20

**MLTC 1161 - Topics in Immunohematology**  
(1 Credit)  
This course is designed to provide the student with the necessary skills for proficiency in Immunohematology techniques and procedures. Emphasis will be placed on laboratory skills, including decision making, interpretation, and quality assurance. Upon completion, the student will show 100% proficiency in type and screen, compatibility testing, antibody identification and other procedures. - Lab Fee: $10

**MLTC 1170 - Quality Assurance for Point of Care Laboratory Testing**  
(1 Credit)  
This course is designed for health care workers who perform clinical laboratory tests that are waived tests in a physician's office or medical care center. The course includes laboratory safety (OSHA regulations), quality control procedures to ensure quality assurance, a detailed discussion on CLIA '88 waived tests and instruction on the performance of these tests. Students are provided with the technical knowledge and skills required for competent performance of waived laboratory procedures with increased reproducibility accuracy and precision. (Prerequisite: Enrollment in Phlebotomy or Renal Dialysis program or permission of department) Lecture: 2 hours, Lab: 2 hours - Lab Fee: $10

**MLTC 1180 - Specimen Collection and Handling for Healthcare Professionals**  
(1 Credit)  
This course covers the principles of specimen collection and handling. National standards are presented. Various specimen collection techniques are introduced to the health care professional, with emphasis on the importance of a properly collected specimen. (Prerequisite: Second-year students enrolled in RESP, XRAY, ADNU or LPNU, RENL programs or department permission) Lecture: 2 hours, Lab: 2 hours - Lab Fee: $10
MLTC 1190 - Fundamentals of Clinical Chemistry  
(3 Credits)  
This course introduces the analytical skills needed to correctly perform analytic procedures that yield accurate and precise information. Basic principles and practices of clinical chemistry are emphasized. Laboratory safety, quality control and statistics, analytical techniques and instrumentation are stressed. (Prerequisite: Enrollment in Clinical Lab Tech program or department permission) Lecture: 3 hours

MLTC 1210 - Introduction to Clinical Laboratory Science  
(3 Credits)  
This course offers a basic introduction to the clinical laboratory. Current concepts and general principles of all areas connected with the medical laboratory field are explored. Students are introduced to selected basic techniques used in the clinical laboratory. (Note: This course is open to any student interested in the field of clinical laboratory technology or can be used as a general studies elective). Lecture: 2 hours, Lab: 2 hours - Lab Fee: $20

MLTC 1930 - Phlebotomy for Medical Laboratory Technicians II  
(1 Credit)  
This course provides clinical laboratory technology students with the opportunity to become proficient in phlebotomy in a clinical laboratory setting. In addition, use of laboratory information systems, accessioning and proper record-keeping are demonstrated. (Prerequisite: MLTC 1130 or permission of department) Clinical: 40 hours/week

MLTC 1940 - Clinical Immunohematology  
(3 Credits)  
This clinical internship provides the student with opportunity to implement skills learned in MLTC 1160 and MLTC 1161 in a clinical laboratory environment. Students attend for 40 hours per week for 2.5 weeks. There is ample opportunity for additional practice of blood bank principles and procedures and to gain experience with automated instruments. (Prerequisite: MLTC 1160, MLTC 1161 and MLTC 1120). Clinical: 40 hours/week/2.5 weeks - Lab Fee: $20

MLTC 1950 - Clinical Urinalysis  
(1 Credit)  
This clinical experience will provide the student with theory and practice in performing urinalysis, with the examination of the physical, chemical and microscopic components of urine. Analysis of other body fluid, including serous, amniotic, synovial, seminal and vaginal are included. Students attend for 40 hours per week for 1.5 weeks. (Prerequisite: MLTC 1150). Clinical: 40 hours/week/1.5 weeks - Lab Fee: $20

MLTC 1960 - Clinical Laboratory Information Systems  
(1 Credit)  
Workflow in the laboratory has been adjusted due to the introduction of the computer. This course is an introduction to data entry processing and retrieval of laboratory information. Specimen tracking is emphasized in this hands-on environment. Lecture: 2 hours, Lab: 2 hours - Lab Fee: $10

MLTC 1970 - Information Technology for Clinical Lab Technicians  
(2 Credits)  
This course provides students with the knowledge to perform laboratory procedures that require the use of a computer. Students learn to understand the basics of a system that delivers rapid and accurate reporting to caregivers and to understand the role that the regulatory agencies play in the laboratory information system. (Prerequisite: COMI 1100) Lecture: 2 hours, Lab: 2 hours

MLTC 2110 - Clinical Microbiology I  
(4 Credits)  
Procedures for cultivation and identification of pathogenic microorganisms from clinical material are covered in this course. Additional topics such as antimicrobial susceptibility tests, quality control and automation in microbiology are also included. (Prerequisite: MLTC 1110 or equivalent) Lecture: 2 hours, Lab: 4 hours - Lab Fee: $20

MLTC 2120 - Hematology  
(4 Credits)  
The study of the structure and function of blood and its role in health and disease is presented. Red blood cells, white blood cells and coagulation factors including platelets are observed and discussed. The classification of leukemias, anemias and other hematological disorders is studied. Development of skills in manual and automated laboratory procedures is stressed. Laboratory procedures include coagulation studies, manual and
automated red blood cell, white blood cell and platelet counting and enumeration of special cells. Films of normal and abnormal peripheral blood are examined. Lecture: 2 hours, Lab: 6 hours - Lab Fee: $20

**MLTC 2190 - Clinical Chemistry I**  
(5 Credits)  
The basic principles of spectrophotometry and the diagnostic methods of analysis are presented. The study of protein, fat and carbohydrate metabolism, electrolyte and acid-base balance PCR, molecular methods enzymes and renal function procedures as they relate to diagnostic testing is stressed. Laboratory mathematics and quality control are discussed. Selected laboratory procedures including manual and automated quantitative analysis of serum, plasma and urine are performed. (Prerequisite: MLTC 1190 or permission of department) Lecture: 3 hours, Lab: 6 hours - Lab Fee: $20

**MLTC 2910 - Clinical Microbiology II**  
(4 Credits)  
This course provides practical application of principles and techniques that have been previously learned. Students learn by doing actual testing at the bench with the same exposure to realistic conditions under which a technician works. Coursework involves skill development of clinical bacteriology, mycology and parasitology. (Prerequisite: MLTC 2110) Clinical: 32 hours/week

**MLTC 2920 - Clinical Hematology II**  
(4 Credits)  
This course provides practical application of principles and techniques that have been previously learned. Students learn by doing actual testing at the bench with the same exposure to realistic conditions under which a technician works. (Prerequisite: MLTC 2120) Clinical: 32 hours/week

**MLTC 2930 - Clinical Laboratory Science Seminar**  
(2 Credits)  
The course examines case studies as they relate to hematology, clinical chemistry, microbiology, urinalysis, immunohematology and immunology. Self-Assessments are used as a review to enhance the students' knowledge base. A capstone presentation is required as a culmination of the students' understanding of clinical laboratory diseases and disorders. (Corequisite: MLTC 2910 or 2920 or 2990 or permission of department) Lecture: 3 hours

**MLTC 2990 - Clinical Chemistry II**  
(4 Credits)  
This course provides practical application of principles and techniques that have been previously learned. Students learn by doing actual testing at the bench with the same exposure to realistic conditions under which a technician works. (Prerequisite: MLTC 2190) Clinical: 32 hours/week

**MRIC (Magnetic Resonance Imaging)**

**MRIC 2260 - Introduction to MRI**  
(6 Credits)  
This course provides students with a knowledge of MRI image production, including image acquisition and reconstruction. The selection of scan protocols will be related to anatomical region, patient history and physical condition. Attention is given to patient education, screening and care. Clinical application is part of this course. Anatomical regions of the head and neck, spine, thorax and abdomen are considered. Prerequisite: Registered radiographer, Lecture: 3 hours, Clinical: 16 hours

**MRIC 2270 - MRI Physics and Instrumentation**  
(3 Credits)  
This course provides students with a basic understanding of the physics of magnetic resonance imaging and the instrumentation used to acquire MRI images. The basic principles of electricity and magnetism are addressed, as well as the characteristics of radio frequencies and the phenomenon of resonance. Application of these principles to data acquisition is discussed. Hazards associated with strong magnetic fields and radio frequencies is addressed, as well as the actual components of magnetic resonance equipment. Prerequisite: Registered radiographer, Lecture: 3 hours

**MRIC 2280 - Procedures and Methods for MRI Imaging**  
(6 Credits)  
This course addresses advanced imaging techniques, including MR angiography, cardiac imaging and spectroscopy. The nature and use of contrast agents is discussed. Factors related to image quality, artifacts and quality assurance is considered. Imaging of the pelvis, musculoskeletal and vascular system are discussed. Supervised clinical practice is included. Lecture: 3 hours; Clinical 16 hours
**MRIC 2290 - MRI Safety and Quality Assurance**  
(3 Credits)  
This course addresses safety practices and quality assurance as they relate to magnetic resonance imaging. Factors related to image quality and optimal operation of imaging equipment are considered. Students evaluate MRI images for quality and learn to manipulate parameters when necessary. MRI screening procedures and safety considerations for all patients are addressed as well as special concerns for patients with biomedical implants and devices. Students apply knowledge from classroom instruction and activities as part of a supervised clinical experience. Lecture: 3 hours

**MUSC (Music)**

**MUSC 1010 - Foundations in Music**  
(3 Credits)  
This is a beginning study of music reading and writing including notation, terminology, major and minor keys, interval recognition, triad identification, rhythmic perception, melodic dictation and sight singing. This course can be used as an elective for non-majors. Music majors may enroll in the course as a review if necessary, but this course does not count toward music degree requirements. (See MUSC 1700) Lecture: 3 hours

**MUSC 1030 - Voice Class**  
(3 Credits)  
This course is designed to develop basic vocal technique in terms of breath control, tone production, tone placement, articulation and diction through appropriate exercises, as well as to develop basic musicianship through careful study and singing of a diversified vocal repertoire. Both ensemble and solo pieces are assigned. Lecture: 3 hours

**MUSC 1050 - Music Before 1750**  
(3 Credits)  
The history of music of the early Christian, Medieval, Renaissance and Baroque periods is examined in reference to the culture in which each was created. Special emphasis is placed on intensive listening. Lecture: 3 hours, Spring semester

**MUSC 1060 - Music After 1750**  
(3 Credits)  
This course covers the history of music of the Rococo, Classical, Romantic and early 20th century periods with cultural correlations to the periods. Special emphasis is placed on intensive listening. Lecture: 3 hours, Fall semester

**MUSC 1091 - Opera Workshop I**  
(1 Credit)  
This course is a workshop designed to explore the basics of integrating singing, movement and dramatization into opera performance. Emphasis is placed on character development, score study and stage movement in two consecutive semesters. Each student in the class will be assigned a role in the spring opera production. During the first semester, the roles are musically prepared and memorized. Detailed musical coaching including stylistic study, diction, and period performance practice. Opera Workshop I may be repeated four times. (Prerequisite: College freshman ability in singing, as demonstrated in an informal audition at the first class meeting; recommended: Enrollment in sequential course, MUSC 1092- Opera Workshop II in Spring semester) Rehearsal: 2.5 hours, Fall semester

**MUSC 1092 - Opera Workshop II**  
(1 Credit)  
This course is the second semester of a workshop designed to explore the integration of singing, movement and dramatization into operatic performance. By the performance date, students will display a comprehensive knowledge of the opera roles assigned, including the acting, stage movement and overall dramatic presentation by participating in a fully staged performance of the chosen opera. Opera Workshop II may be repeated four times. (Prerequisite: Completion of MUSC 1091 in the same academic year) Rehearsal: 2.5 hours, Spring semester

**MUSC 1110 - Jazz History**  
(3 Credits)  
This course is designed to familiarize students with literature and techniques employed in jazz from the 1890s to the present. The course begins with a study of the elements of music, and major jazz styles are considered in historic context. Significant jazz artists studied include Louis Armstrong, Duke Ellington, Charlie Parker and Miles Davis. Lecture: 3 hours
MUSC 1112 - Introduction to Digital Recording Technology
(3 Credits)
This is an introductory course in recording technology and music production using Pro Tools software. The course assumes no prior music production experience or music theory background. The fundamental concepts of sound, digital audio workstations (DAW), recording studio equipment and techniques, audio and MIDI recording, editing, mixing and mastering will be introduced. Students will finish the course with the basic knowledge of how to set up a home studio and begin producing their own music. Lecture/Studio: 3 hours - Lab Fee: $20

MUSC 1113 - Audio Recording
(3 Credits)
This course is an in-depth study of digital signal processing within a multimedia, sound design, or music production process. It includes techniques such as spectrum, dynamic, time, and mastering configurations. Students will explore the modern concepts of personal computer processing, as well as analyze the recording, mixing and mastering of professional mixes. (Prerequisite: MUSC 1112 or permission of instructor). Lecture/studio: 3 hours - Lab Fee: $20

MUSC 1120 - The American Musical
(3 Credits)
This course is a study of the American Broadway musical from 1870 through the present, including works by Kern, Rodgers/ Hammerstein, Sondheim and Webber. Lecture: 3 hours

MUSC 1130 - String Class I
(3 Credits)
This course is designed to develop the basic skills of playing the violin, viola, cello or double bass, including tone quality, intonation, technical facility, sight reading and basic performance. A limited number of instruments are provided by the department. No prior playing experience is necessary, but students must read music. (Prerequisite: MUSC 1010 or 1700 or permission of instructor) Spring only. Lecture: 3 hours

MUSC 1135 - String Class II
(3 Credits)
This is a sequel to MUSC 1130 to improve basic playing skills and to acquaint students with a string instrument not studied in String Class I. (Prerequisite: MUSC 1130 or permission of instructor) Lecture: 3 hours, Spring semester

MUSC 1137 - Beginning Guitar Class
(3 Credits)
This elective course is designed to introduce students to the fundamentals of music through a study of the guitar. Students with little or no experience on the instrument will learn the basics of rhythm, melody and harmony as well as learn to perform solo, duet and ensemble pieces in a class setting. The course will develop technical skills through scales and exercises, which are essential for performing chords, song accompaniments and folk melodies. In addition, basic music reading and writing will be learned throughout the semester. Also, students must supply their own nonelectric instruments. No previous musical experience is required for this class. This beginning guitar course is not for the experienced guitarist. Lecture: 3 hours

MUSC 1140 - Piano Class I
(2 Credits)
This course develops basic keyboard skills, including two-octave scales and chord progressions, improvisation of simple accompaniments and sight reading of easier selected pieces. (Prerequisite: MUSC 1010 or 1700 or permission of instructor) Lecture: 4 hours

MUSC 1145 - Piano Class II
(2 Credits)
A sequel to MUSC 1140, this course places emphasis on improving finger dexterity, hand coordination, pedalling techniques, sight-reading, articulation and interpretive skills. (Prerequisite: MUSC 1140 or permission of instructor) Lecture: 4 hours

MUSC 1160 - Introduction to Music
(3 Credits)
This course is designed to foster better understanding and appreciation of great music of the Western world. European and American musical styles, techniques and forms are presented from the listener's standpoint. Lecture: 3 hours
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
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<tbody>
<tr>
<td>MUSC 1165</td>
<td>History of Rock</td>
<td>3</td>
<td>This course covers the history of rock music, its diverse American influences, its emergence as a recognizable style in the 1950s and its symbiotic relationship with 20th century and contemporary society. Students will learn to become active listeners and to articulate the ways in which various compositional techniques and performance practices in rock music express aspects of the human condition. Lecture: 3 hours</td>
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<tr>
<td>MUSC 1175</td>
<td>Music Therapy and Geriatrics</td>
<td>3</td>
<td>This is an introductory course on the field of Music Therapy and the benefits of using music as an intervention with a geriatric population. Students will learn how music and music-related activities can be utilized to connect with people who are living with age-related disorders. Topics will include the history of Music Therapy, the function of music, and how music is used by trained Music Therapists when working with an elderly population. Students will learn activities and strategies that can be used by health and human services professionals when working with an elderly population when a Music Therapist is not available. Lecture: 3 hours</td>
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<tr>
<td>MUSC 1180</td>
<td>Jazz Ensemble</td>
<td>1</td>
<td>This is a course designed to provide students with opportunities to participate in a musical ensemble, perform various styles of jazz and develop their improvisational ability. Note: Instrumentation and stylistic direction of the ensemble may vary from semester to semester. Four credits of this ensemble may be counted toward the A.F.A. degree ensemble requirement. Additional credits are counted as electives. Prerequisite: Technical proficiency on an instrument and audition during the first week of classes. Rehearsal: 2.5 hours</td>
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<tr>
<td>MUSC 1200</td>
<td>Chamber Ensemble (Band)</td>
<td>1</td>
<td>The course provides an opportunity for students to develop ensemble skills in a small group setting. Various combinations of winds, strings, piano and percussion are utilized. Note: Four credits of this ensemble are counted toward the A.F.A. degree requirement. Further ensemble credits are counted as electives. (Prerequisite: Moderate technical proficiency on an instrument and/or permission of instructor) Rehearsal: 2.5 hours</td>
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<tr>
<td>MUSC 1210</td>
<td>Chorus</td>
<td>1</td>
<td>This course is designed to provide singers an opportunity to perform in an ensemble while developing vocal technique proper breath support, tone production, tone placement, etc. Note: Four credits of this ensemble are counted toward the A.F.A. degree requirement. Further ensemble credits are counted as electives. (Prerequisite: Audition at first class meeting) Rehearsal: 2.5 hours</td>
</tr>
<tr>
<td>MUSC 1220</td>
<td>Chamber Singers</td>
<td>1</td>
<td>This course is for a select group of singers who perform a variety of choral repertoire, including a cappella polyphonic compositions and 20th century styles. Note: Four credits of this ensemble are counted toward the A.F.A. degree requirement. Further ensemble credits are counted as electives. (Prerequisite: Audition at the first class meeting) Rehearsal: 2.5 hours</td>
</tr>
<tr>
<td>MUSC 1231</td>
<td>Orchestra</td>
<td>1</td>
<td>Study and performance of standard and modern repertoire for the orchestra. Open to qualified instrumentalists by audition. Course meets at Rhode Island College Nazarian Center. In addition to weekly rehearsals, attendance at dress rehearsal and performance dates are required. Offered Fall and Spring. (Prerequisite: Audition is required) Rehearsal: 2.5 hours</td>
</tr>
<tr>
<td>MUSC 1240</td>
<td>Applied Music Violin I</td>
<td>2</td>
<td>The course provides private music instruction on a principal instrument or in principal voice for music majors. Instruction is offered in classical music or jazz (one hour lesson per week) for students already proficient in playing an instrument or singing. Ability to read music is required. All students registered for principal applied music will be required to perform in a student recital at least once per semester. Admission to any of the applied music courses is by audition only. Students will be assigned to CCRI Music faculty. (Prerequisite: College freshman ability in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $378</td>
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MUSC 1242 - Applied Music Violin-Secondary
(1 Credit)
Private music instruction on a second instrument or in voice for music majors, or private music instruction for non-majors wishing to study an instrument or voice for credit. Instruction is offered in classical music or jazz (one half-hour lesson per week) for students with basic proficiency in playing an instrument or singing. Elementary ability to read music is necessary. All students are required to perform in a student recital at least once per semester. Admission is by audition only. Students are assigned to CCRI Music faculty. (Prerequisite: Basic proficiency in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $189

MUSC 1250 - Applied Music Violin 2
(2 Credits)
The course provides private music instruction on a principal instrument or in principal voice for music majors. Instruction is offered in classical music or jazz (one hour lesson per week) for students already proficient in playing an instrument or singing. Ability to read music is required. All students registered for principal applied music will be required to perform in a student recital at least once per semester. Admission to any of the applied music courses is by audition only. Students will be assigned to CCRI Music faculty. (Prerequisite: College freshman ability in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $378

MUSC 1252 - Applied Music Violin-Secondary
(1 Credit)
Private music instruction on a second instrument or in voice for music majors, or private music instruction for non-majors wishing to study an instrument or voice for credit. Instruction is offered in classical music or jazz (one half-hour lesson per week) for students with basic proficiency in playing an instrument or singing. Elementary ability to read music is necessary. All students are required to perform in a student recital at least once per semester. Admission is by audition only. Students are assigned to CCRI Music faculty. (Prerequisite: Basic proficiency in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $189

MUSC 1260 - Applied Music Viola I
(2 Credits)
The course provides private music instruction on a principal instrument or in principal voice for music majors. Instruction is offered in classical music or jazz (one hour lesson per week) for students already proficient in playing an instrument or singing. Ability to read music is required. All students registered for principal applied music will be required to perform in a student recital at least once per semester. Admission to any of the applied music courses is by audition only. Students will be assigned to CCRI Music faculty. (Prerequisite: College freshman ability in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $378

MUSC 1262 - Applied Music Viola-Secondary
(1 Credit)
Private music instruction on a second instrument or in voice for music majors, or private music instruction for non-majors wishing to study an instrument or voice for credit. Instruction is offered in classical music or jazz (one half-hour lesson per week) for students with basic proficiency in playing an instrument or singing. Elementary ability to read music is necessary. All students are required to perform in a student recital at least once per semester. Admission is by audition only. Students are assigned to CCRI Music faculty. (Prerequisite: Basic proficiency in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $189

MUSC 1270 - Applied Music Viola 2
(2 Credits)
The course provides private music instruction on a principal instrument or in principal voice for music majors. Instruction is offered in classical music or jazz (one hour lesson per week) for students already proficient in playing an instrument or singing. Ability to read music is required. All students registered for principal applied music will be required to perform in a student recital at least once per semester. Admission to any of the applied music courses is by audition only. Students will be assigned to CCRI Music faculty. (Prerequisite: College freshman ability in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $378
MUSC 1272 - Applied Music Viola-Secondary
(1 Credit)
Private music instruction on a second instrument or in voice for music majors, or private music instruction for non-majors wishing to study an instrument or voice for credit. Instruction is offered in classical music or jazz (one half-hour lesson per week) for students with basic proficiency in playing an instrument or singing. Elementary ability to read music is necessary. All students are required to perform in a student recital at least once per semester. Admission is by audition only. Students are assigned to CCRI Music faculty. (Prerequisite: Basic proficiency in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $189

MUSC 1280 - Applied Music Violoncello
(2 Credits)
The course provides private music instruction on a principal instrument or in principal voice for music majors. Instruction is offered in classical music or jazz (one hour lesson per week) for students already proficient in playing an instrument or singing. Ability to read music is required. All students registered for principal applied music will be required to perform in a student recital at least once per semester. Admission to any of the applied music courses is by audition only. Students will be assigned to CCRI Music faculty. (Prerequisite: College freshman ability in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $378

MUSC 1282 - Applied Music Violoncello-Secondary
(1 Credit)
Private music instruction on a second instrument or in voice for music majors, or private music instruction for non-majors wishing to study an instrument or voice for credit. Instruction is offered in classical music or jazz (one half-hour lesson per week) for students with basic proficiency in playing an instrument or singing. Elementary ability to read music is necessary. All students are required to perform in a student recital at least once per semester. Admission is by audition only. Students are assigned to CCRI Music faculty. (Prerequisite: Basic proficiency in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $189

MUSC 1290 - Applied Music Violoncello
(2 Credits)
The course provides private music instruction on a principal instrument or in principal voice for music majors. Instruction is offered in classical music or jazz (one hour lesson per week) for students already proficient in playing an instrument or singing. Ability to read music is required. All students registered for principal applied music will be required to perform in a student recital at least once per semester. Admission to any of the applied music courses is by audition only. Students will be assigned to CCRI Music faculty. (Prerequisite: College freshman ability in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $378

MUSC 1292 - Applied Music Violoncello-Secondary
(1 Credit)
Private music instruction on a second instrument or in voice for music majors, or private music instruction for non-majors wishing to study an instrument or voice for credit. Instruction is offered in classical music or jazz (one half-hour lesson per week) for students with basic proficiency in playing an instrument or singing. Elementary ability to read music is necessary. All students are required to perform in a student recital at least once per semester. Admission is by audition only. Students are assigned to CCRI Music faculty. (Prerequisite: Basic proficiency in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $189

MUSC 1300 - Applied Music String/Electric Bass
(2 Credits)
The course provides private music instruction on a principal instrument or in principal voice for music majors. Instruction is offered in classical music or jazz (one hour lesson per week) for students already proficient in playing an instrument or singing. Ability to read music is required. All students registered for principal applied music will be required to perform in a student recital at least once per semester. Admission to any of the applied music courses is by audition only. Students will be assigned to CCRI Music faculty. (Prerequisite: College freshman ability in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $378
MUSC 1302 - Applied Music String/Electric Bass-Secondary
(1 Credit)
Private music instruction on a second instrument or in voice for music majors, or private music instruction for non-majors wishing to study an instrument or voice for credit. Instruction is offered in classical music or jazz (one half-hour lesson per week) for students with basic proficiency in playing an instrument or singing. Elementary ability to read music is necessary. All students are required to perform in a student recital at least once per semester. Admission is by audition only. Students are assigned to CCRI Music faculty. (Prerequisite: Basic proficiency in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $189

MUSC 1310 - Applied Music String/Electric Bass
(2 Credits)
The course provides private music instruction on a principal instrument or in principal voice for music majors. Instruction is offered in classical music or jazz (one hour lesson per week) for students already proficient in playing an instrument or singing. Ability to read music is required. All students registered for principal applied music will be required to perform in a student recital at least once per semester. Admission to any of the applied music courses is by audition only. Students will be assigned to CCRI Music faculty. (Prerequisite: College freshman ability in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $378

MUSC 1312 - Applied Music String/Electric Bass-Secondary
(1 Credit)
Private music instruction on a second instrument or in voice for music majors, or private music instruction for non-majors wishing to study an instrument or voice for credit. Instruction is offered in classical music or jazz (one half-hour lesson per week) for students with basic proficiency in playing an instrument or singing. Elementary ability to read music is necessary. All students are required to perform in a student recital at least once per semester. Admission is by audition only. Students are assigned to CCRI Music faculty. (Prerequisite: Basic proficiency in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $189

MUSC 1320 - Applied Music Flute 1
(2 Credits)
The course provides private music instruction on a principal instrument or in principal voice for music majors. Instruction is offered in classical music or jazz (one hour lesson per week) for students already proficient in playing an instrument or singing. Ability to read music is required. All students registered for principal applied music will be required to perform in a student recital at least once per semester. Admission to any of the applied music courses is by audition only. Students will be assigned to CCRI Music faculty. (Prerequisite: College freshman ability in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $378

MUSC 1322 - Applied Music Flute-Secondary
(1 Credit)
Private music instruction on a second instrument or in voice for music majors, or private music instruction for non-majors wishing to study an instrument or voice for credit. Instruction is offered in classical music or jazz (one half-hour lesson per week) for students with basic proficiency in playing an instrument or singing. Elementary ability to read music is necessary. All students are required to perform in a student recital at least once per semester. Admission is by audition only. Students are assigned to CCRI Music faculty. (Prerequisite: Basic proficiency in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $189

MUSC 1330 - Applied Music Flute 2
(2 Credits)
The course provides private music instruction on a principal instrument or in principal voice for music majors. Instruction is offered in classical music or jazz (one hour lesson per week) for students already proficient in playing an instrument or singing. Ability to read music is required. All students registered for principal applied music will be required to perform in a student recital at least once per semester. Admission to any of the applied music courses is by audition only. Students will be assigned to CCRI Music faculty. (Prerequisite: College freshman ability in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $378

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<td>MUSC 1332</td>
<td>Applied Music Flute-Secondary</td>
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<td>Private music instruction on a second instrument or in voice for music majors, or private music instruction for non-majors wishing to study an instrument or voice for credit. Instruction is offered in classical music or jazz (one half-hour lesson per week) for students with basic proficiency in playing an instrument or singing. Elementary ability to read music is necessary. All students are required to perform in a student recital at least once per semester. Admission is by audition only. Students are assigned to CCRI Music faculty. (Prerequisite: Basic proficiency in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply.</td>
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<td>MUSC 1340</td>
<td>Applied Music Oboe I</td>
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<td>MUSC 1350</td>
<td>Applied Music Oboe II</td>
<td>2 Credits</td>
<td>The course provides private music instruction on a principal instrument or in principal voice for music majors. Instruction is offered in classical music or jazz (one hour lesson per week) for students already proficient in playing an instrument or singing. Ability to read music is required. All students registered for principal applied music will be required to perform in a student recital at least once per semester. Admission to any of the applied music courses is by audition only. Students will be assigned to CCRI Music faculty. (Prerequisite: College freshman ability in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply.</td>
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<td>MUSC 1360</td>
<td>Applied Music Clarinet I</td>
<td>2 Credits</td>
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### MUSC 1362 - Applied Music Clarinet-Secondary
(1 Credit)
Private music instruction on a second instrument or in voice for music majors, or private music instruction for non-majors wishing to study an instrument or voice for credit. Instruction is offered in classical music or jazz (one half-hour lesson per week) for students with basic proficiency in playing an instrument or singing. Elementary ability to read music is necessary. All students are required to perform in a student recital at least once per semester. Admission is by audition only. Students are assigned to CCRI Music faculty. (Prerequisite: Basic proficiency in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $189

### MUSC 1370 - Applied Music Clarinet 2
(2 Credits)
The course provides private music instruction on a principal instrument or in principal voice for music majors. Instruction is offered in classical music or jazz (one hour lesson per week) for students already proficient in playing an instrument or singing. Ability to read music is required. All students registered for principal applied music will be required to perform in a student recital at least once per semester. Admission to any of the applied music courses is by audition only. Students will be assigned to CCRI Music faculty. (Prerequisite: College freshman ability in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $378

### MUSC 1372 - Applied Music Clarinet-Secondary
(1 Credit)
Private music instruction on a second instrument or in voice for music majors, or private music instruction for non-majors wishing to study an instrument or voice for credit. Instruction is offered in classical music or jazz (one half-hour lesson per week) for students with basic proficiency in playing an instrument or singing. Elementary ability to read music is necessary. All students are required to perform in a student recital at least once per semester. Admission is by audition only. Students are assigned to CCRI Music faculty. (Prerequisite: Basic proficiency in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $189

### MUSC 1380 - Applied Music Bassoon
(2 Credits)
The course provides private music instruction on a principal instrument or in principal voice for music majors. Instruction is offered in classical music or jazz (one hour lesson per week) for students already proficient in playing an instrument or singing. Ability to read music is required. All students registered for principal applied music will be required to perform in a student recital at least once per semester. Admission to any of the applied music courses is by audition only. Students will be assigned to CCRI Music faculty. (Prerequisite: College freshman ability in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $378

### MUSC 1382 - Applied Music Bassoon-Secondary
(1 Credit)
Private music instruction on a second instrument or in voice for music majors, or private music instruction for non-majors wishing to study an instrument or voice for credit. Instruction is offered in classical music or jazz (one half-hour lesson per week) for students with basic proficiency in playing an instrument or singing. Elementary ability to read music is necessary. All students are required to perform in a student recital at least once per semester. Admission is by audition only. Students are assigned to CCRI Music faculty. (Prerequisite: Basic proficiency in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $189

### MUSC 1390 - Applied Music Bassoon
(2 Credits)
The course provides private music instruction on a principal instrument or in principal voice for music majors. Instruction is offered in classical music or jazz (one hour lesson per week) for students already proficient in playing an instrument or singing. Ability to read music is required. All students registered for principal applied music will be required to perform in a student recital at least once per semester. Admission to any of the applied music courses is by audition only. Students will be assigned to CCRI Music faculty. (Prerequisite: College freshman ability in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $378
MUSC 1392 - Applied Music Bassoon-Secondary
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MUSC 1400 - Applied Music Trumpet
(2 Credits)
The course provides private music instruction on a principal instrument or in principal voice for music majors. Instruction is offered in classical music or jazz (one hour lesson per week) for students already proficient in playing an instrument or singing. Ability to read music is required. All students registered for principal applied music will be required to perform in a student recital at least once per semester. Admission to any of the applied music courses is by audition only. Students will be assigned to CCRI Music faculty. (Prerequisite: College freshman ability in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $378

MUSC 1402 - Applied Music Trumpet-Secondary
(1 Credit)
Private music instruction on a second instrument or in voice for music majors, or private music instruction for non-majors wishing to study an instrument or voice for credit. Instruction is offered in classical music or jazz (one half-hour lesson per week) for students with basic proficiency in playing an instrument or singing. Elementary ability to read music is necessary. All students are required to perform in a student recital at least once per semester. Admission is by audition only. Students are assigned to CCRI Music faculty. (Prerequisite: Basic proficiency in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $189

MUSC 1410 - Applied Music Trumpet
(2 Credits)
The course provides private music instruction on a principal instrument or in principal voice for music majors. Instruction is offered in classical music or jazz (one hour lesson per week) for students already proficient in playing an instrument or singing. Ability to read music is required. All students registered for principal applied music will be required to perform in a student recital at least once per semester. Admission to any of the applied music courses is by audition only. Students will be assigned to CCRI Music faculty. (Prerequisite: College freshman ability in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $378

MUSC 1412 - Applied Music Trumpet-Secondary
(1 Credit)
Private music instruction on a second instrument or in voice for music majors, or private music instruction for non-majors wishing to study an instrument or voice for credit. Instruction is offered in classical music or jazz (one half-hour lesson per week) for students with basic proficiency in playing an instrument or singing. Elementary ability to read music is necessary. All students are required to perform in a student recital at least once per semester. Admission is by audition only. Students are assigned to CCRI Music faculty. (Prerequisite: Basic proficiency in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $189

MUSC 1420 - Applied Music French Horn
(2 Credits)
The course provides private music instruction on a principal instrument or in principal voice for music majors. Instruction is offered in classical music or jazz (one hour lesson per week) for students already proficient in playing an instrument or singing. Ability to read music is required. All students registered for principal applied music will be required to perform in a student recital at least once per semester. Admission to any of the applied music courses is by audition only. Students will be assigned to CCRI Music faculty. (Prerequisite: College freshman ability in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $378
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<td>Applied Music French Horn-Secondary</td>
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<td>Applied Music Trombone</td>
<td>2</td>
<td>The course provides private music instruction on a principal instrument or in principal voice for music majors. Instruction is offered in classical music or jazz (one hour lesson per week) for students already proficient in playing an instrument or singing. Ability to read music is required. All students registered for principal applied music will be required to perform in a student recital at least once per semester. Admission to any of the applied music courses is by audition only. Students will be assigned to CCRI Music faculty. (Prerequisite: College freshman ability in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $378</td>
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MUSC 1452 - Applied Music Trombone-Secondary
(1 Credit)
Private music instruction on a second instrument or in voice for music majors, or private music instruction for non-majors wishing to study an instrument or voice for credit. Instruction is offered in classical music or jazz (one half-hour lesson per week) for students with basic proficiency in playing an instrument or singing. Elementary ability to read music is necessary. All students are required to perform in a student recital at least once per semester. Admission is by audition only. Students are assigned to CCRI Music faculty. (Prerequisite: Basic proficiency in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $189

MUSC 1460 - Applied Music Tuba/Euphonium
(2 Credits)
The course provides private music instruction on a principal instrument or in principal voice for music majors. Instruction is offered in classical music or jazz (one hour lesson per week) for students already proficient in playing an instrument or singing. Ability to read music is required. All students registered for principal applied music will be required to perform in a student recital at least once per semester. Admission to any of the applied music courses is by audition only. Students will be assigned to CCRI Music faculty. (Prerequisite: College freshman ability in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $378

MUSC 1462 - Applied Music Tuba-Secondary
(1 Credit)
Private music instruction on a second instrument or in voice for music majors, or private music instruction for non-majors wishing to study an instrument or voice for credit. Instruction is offered in classical music or jazz (one half-hour lesson per week) for students with basic proficiency in playing an instrument or singing. Elementary ability to read music is necessary. All students are required to perform in a student recital at least once per semester. Admission is by audition only. Students are assigned to CCRI Music faculty. (Prerequisite: Basic proficiency in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $189

MUSC 1470 - Applied Music Tuba/Euphonium 2
(2 Credits)
The course provides private music instruction on a principal instrument or in principal voice for music majors. Instruction is offered in classical music or jazz (one hour lesson per week) for students already proficient in playing an instrument or singing. Ability to read music is required. All students registered for principal applied music will be required to perform in a student recital at least once per semester. Admission to any of the applied music courses is by audition only. Students will be assigned to CCRI Music faculty. (Prerequisite: College freshman ability in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $378

MUSC 1472 - Applied Music Tuba/Euphonium-Secondary
(1 Credit)
Private music instruction on a second instrument or in voice for music majors, or private music instruction for non-majors wishing to study an instrument or voice for credit. Instruction is offered in classical music or jazz (one half-hour lesson per week) for students with basic proficiency in playing an instrument or singing. Elementary ability to read music is necessary. All students are required to perform in a student recital at least once per semester. Admission is by audition only. Students are assigned to CCRI Music faculty. (Prerequisite: Basic proficiency in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $189

MUSC 1480 - Applied Music Percussion
(2 Credits)
The course provides private music instruction on a principal instrument or in principal voice for music majors. Instruction is offered in classical music or jazz (one hour lesson per week) for students already proficient in playing an instrument or singing. Ability to read music is required. All students registered for principal applied music will be required to perform in a student recital at least once per semester. Admission to any of the applied music courses is by audition only. Students will be assigned to CCRI Music faculty. (Prerequisite: College freshman ability in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $378
MUSC 1482 - Applied Music Percussion-Secondary  
(1 Credit)  
Private music instruction on a second instrument or in voice for music majors, or private music instruction for non-majors wishing to study an instrument or voice for credit. Instruction is offered in classical music or jazz (one half-hour lesson per week) for students with basic proficiency in playing an instrument or singing. Elementary ability to read music is necessary. All students are required to perform in a student recital at least once per semester. Admission is by audition only. Students are assigned to CCRI Music faculty. (Prerequisite: Basic proficiency in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $189

MUSC 1490 - Applied Music Percussion  
(2 Credits)  
The course provides private music instruction on a principal instrument or in principal voice for music majors. Instruction is offered in classical music or jazz (one hour lesson per week) for students already proficient in playing an instrument or singing. Ability to read music is required. All students registered for principal applied music will be required to perform in a student recital at least once per semester. Admission to any of the applied music courses is by audition only. Students will be assigned to CCRI Music faculty. (Prerequisite: College freshman ability in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $378

MUSC 1492 - Applied Music Percussion-Secondary  
(1 Credit)  
Private music instruction on a second instrument or in voice for music majors, or private music instruction for non-majors wishing to study an instrument or voice for credit. Instruction is offered in classical music or jazz (one half-hour lesson per week) for students with basic proficiency in playing an instrument or singing. Elementary ability to read music is necessary. All students are required to perform in a student recital at least once per semester. Admission is by audition only. Students are assigned to CCRI Music faculty. (Prerequisite: Basic proficiency in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $189

MUSC 1500 - Applied Music Piano  
(2 Credits)  
The course provides private music instruction on a principal instrument or in principal voice for music majors. Instruction is offered in classical music or jazz (one hour lesson per week) for students already proficient in playing an instrument or singing. Ability to read music is required. All students registered for principal applied music will be required to perform in a student recital at least once per semester. Admission to any of the applied music courses is by audition only. Students will be assigned to CCRI Music faculty. (Prerequisite: College freshman ability in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $378

MUSC 1502 - Applied Music Piano-Secondary  
(1 Credit)  
Private music instruction on a second instrument or in voice for music majors, or private music instruction for non-majors wishing to study an instrument or voice for credit. Instruction is offered in classical music or jazz (one half-hour lesson per week) for students with basic proficiency in playing an instrument or singing. Elementary ability to read music is necessary. All students are required to perform in a student recital at least once per semester. Admission is by audition only. Students are assigned to CCRI Music faculty. (Prerequisite: Basic proficiency in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $189

MUSC 1510 - Applied Music Piano  
(2 Credits)  
The course provides private music instruction on a principal instrument or in principal voice for music majors. Instruction is offered in classical music or jazz (one hour lesson per week) for students already proficient in playing an instrument or singing. Ability to read music is required. All students registered for principal applied music will be required to perform in a student recital at least once per semester. Admission to any of the applied music courses is by audition only. Students will be assigned to CCRI Music faculty. (Prerequisite: College freshman ability in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $378
MUSC 1512 - Applied Music Piano-Secondary  
(1 Credit)  
Private music instruction on a second instrument or in voice for music majors, or private music instruction for non-majors wishing to study an instrument or voice for credit. Instruction is offered in classical music or jazz (one half-hour lesson per week) for students with basic proficiency in playing an instrument or singing. Elementary ability to read music is necessary. All students are required to perform in a student recital at least once per semester. Admission is by audition only. Students are assigned to CCRI Music faculty. (Prerequisite: Basic proficiency in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $189

MUSC 1520 - Applied Music Organ  
(2 Credits)  
The course provides private music instruction on a principal instrument or in principal voice for music majors. Instruction is offered in classical music or jazz (one hour lesson per week) for students already proficient in playing an instrument or singing. Ability to read music is required. All students registered for principal applied music will be required to perform in a student recital at least once per semester. Admission to any of the applied music courses is by audition only. Students will be assigned to CCRI Music faculty. (Prerequisite: College freshman ability in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $378

MUSC 1522 - Applied Music Organ-Secondary  
(1 Credit)  
Private music instruction on a second instrument or in voice for music majors, or private music instruction for non-majors wishing to study an instrument or voice for credit. Instruction is offered in classical music or jazz (one half-hour lesson per week) for students with basic proficiency in playing an instrument or singing. Elementary ability to read music is necessary. All students are required to perform in a student recital at least once per semester. Admission is by audition only. Students are assigned to CCRI Music faculty. (Prerequisite: Basic proficiency in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $189

MUSC 1530 - Applied Music Organ  
(2 Credits)  
The course provides private music instruction on a principal instrument or in principal voice for music majors. Instruction is offered in classical music or jazz (one hour lesson per week) for students already proficient in playing an instrument or singing. Ability to read music is required. All students registered for principal applied music will be required to perform in a student recital at least once per semester. Admission to any of the applied music courses is by audition only. Students will be assigned to CCRI Music faculty. (Prerequisite: College freshman ability in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $378

MUSC 1532 - Applied Music Organ-Secondary  
(1 Credit)  
Private music instruction on a second instrument or in voice for music majors, or private music instruction for non-majors wishing to study an instrument or voice for credit. Instruction is offered in classical music or jazz (one half-hour lesson per week) for students with basic proficiency in playing an instrument or singing. Elementary ability to read music is necessary. All students are required to perform in a student recital at least once per semester. Admission is by audition only. Students are assigned to CCRI Music faculty. (Prerequisite: Basic proficiency in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $189

MUSC 1540 - Applied Music Voice  
(2 Credits)  
The course provides private music instruction on a principal instrument or in principal voice for music majors. Instruction is offered in classical music or jazz (one hour lesson per week) for students already proficient in playing an instrument or singing. Ability to read music is required. All students registered for principal applied music will be required to perform in a student recital at least once per semester. Admission to any of the applied music courses is by audition only. Students will be assigned to CCRI Music faculty. (Prerequisite: College freshman ability in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $378
MUSC 1542 - Applied Music Voice-Secondary
(1 Credit)
Private music instruction on a second instrument or in voice for music majors, or private music instruction for non-majors wishing to study an instrument or voice for credit. Instruction is offered in classical music or jazz (one half-hour lesson per week) for students with basic proficiency in playing an instrument or singing. Elementary ability to read music is necessary. All students are required to perform in a student recital at least once per semester. Admission is by audition only. Students are assigned to CCRI Music faculty. (Prerequisite: Basic proficiency in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $189

MUSC 1550 - Applied Music Voice
(2 Credits)
The course provides private music instruction on a principal instrument or in principal voice for music majors. Instruction is offered in classical music or jazz (one hour lesson per week) for students already proficient in playing an instrument or singing. Ability to read music is required. All students registered for principal applied music will be required to perform in a student recital at least once per semester. Admission to any of the applied music courses is by audition only. Students will be assigned to CCRI Music faculty. (Prerequisite: College freshman ability in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $378

MUSC 1552 - Applied Music Voice-Secondary
(1 Credit)
Private music instruction on a second instrument or in voice for music majors, or private music instruction for non-majors wishing to study an instrument or voice for credit. Instruction is offered in classical music or jazz (one half-hour lesson per week) for students with basic proficiency in playing an instrument or singing. Elementary ability to read music is necessary. All students are required to perform in a student recital at least once per semester. Admission is by audition only. Students are assigned to CCRI Music faculty. (Prerequisite: Basic proficiency in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $189

MUSC 1600 - Applied Music Saxophone I
(2 Credits)
The course provides private music instruction on a principal instrument or in principal voice for music majors. Instruction is offered in classical music or jazz (one hour lesson per week) for students already proficient in playing an instrument or singing. Ability to read music is required. All students registered for principal applied music will be required to perform in a student recital at least once per semester. Admission to any of the applied music courses is by audition only. Students will be assigned to CCRI Music faculty. (Prerequisite: College freshman ability in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $378

MUSC 1602 - Applied Music Saxophone-Secondary
(1 Credit)
Private music instruction on a second instrument or in voice for music majors, or private music instruction for non-majors wishing to study an instrument or voice for credit. Instruction is offered in classical music or jazz (one half-hour lesson per week) for students with basic proficiency in playing an instrument or singing. Elementary ability to read music is necessary. All students are required to perform in a student recital at least once per semester. Admission is by audition only, with a fee for private instruction due at the beginning of the semester and the balance of the instructor’s fee to be paid directly to the private teacher. Students are assigned to CCRI music faculty. Apply directly to the Music Department for detailed audition information and dates. (Prerequisite: Basic proficiency in playing an instrument or singing, as demonstrated in an audition.) - Applied Music: $189

MUSC 1610 - Applied Music Saxophone
(2 Credits)
The course provides private music instruction on a principal instrument or in principal voice for music majors. Instruction is offered in classical music or jazz (one hour lesson per week) for students already proficient in playing an instrument or singing. Ability to read music is required. All students registered for principal applied music will be required to perform in a student recital at least once per semester. Admission to any of the applied music courses is by audition only. Students will be assigned to CCRI Music faculty. (Prerequisite: College freshman ability in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $378
### MUSC 1612 - Applied Music Saxophone-Secondary
(1 Credit)
Private music instruction on a second instrument or in voice for music majors, or private music instruction for non-majors wishing to study an instrument or voice for credit. Instruction is offered in classical music or jazz (one half-hour lesson per week) for students with basic proficiency in playing an instrument or singing. Elementary ability to read music is necessary. All students are required to perform in a student recital at least once per semester. Admission is by audition only. Students are assigned to CCRI Music faculty. (Prerequisite: Basic proficiency in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $189

### MUSC 1620 - Applied Music Guitar
(2 Credits)
The course provides private music instruction on a principal instrument or in principal voice for music majors. Instruction is offered in classical music or jazz (one hour lesson per week) for students already proficient in playing an instrument or singing. Ability to read music is required. All students registered for principal applied music will be required to perform in a student recital at least once per semester. Admission to any of the applied music courses is by audition only. Students will be assigned to CCRI Music faculty. (Prerequisite: College freshman ability in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $378

### MUSC 1622 - Applied Music Guitar-Secondary
(1 Credit)
Private music instruction on a second instrument or in voice for music majors, or private music instruction for non-majors wishing to study an instrument or voice for credit. Instruction is offered in classical music or jazz (one half-hour lesson per week) for students with basic proficiency in playing an instrument or singing. Elementary ability to read music is necessary. All students are required to perform in a student recital at least once per semester. Admission is by audition only. Students are assigned to CCRI Music faculty. (Prerequisite: Basic proficiency in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $189

### MUSC 1630 - Applied Music Guitar
(2 Credits)
The course provides private music instruction on a principal instrument or in principal voice for music majors. Instruction is offered in classical music or jazz (one hour lesson per week) for students already proficient in playing an instrument or singing. Ability to read music is required. All students registered for principal applied music will be required to perform in a student recital at least once per semester. Admission to any of the applied music courses is by audition only. Students will be assigned to CCRI Music faculty. (Prerequisite: College freshman ability in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $378

### MUSC 1632 - Applied Music Guitar-Secondary
(1 Credit)
Private music instruction on a second instrument or in voice for music majors, or private music instruction for non-majors wishing to study an instrument or voice for credit. Instruction is offered in classical music or jazz (one half-hour lesson per week) for students with basic proficiency in playing an instrument or singing. Elementary ability to read music is necessary. All students are required to perform in a student recital at least once per semester. Admission is by audition only. Students are assigned to CCRI Music faculty. (Prerequisite: Basic proficiency in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $189

### MUSC 1700 - Music Theory I
(3 Credits)
This course is designed for the student who has a foundational music theory background. This is a study of the organizing factors of music including scales, key signatures, intervals, triads with inversions, seventh chords with inversions, rhythm, meter, four-part structure and harmonization with primary triads. Basic keyboard assignments are included. (Prerequisite: Please refer to www.ccri.edu/performingarts/music/assessment for Music Theory Advising Assessment to see if you have sufficient background for MUSC 1700. Enrollment in Music/Jazz Studies degree program or permission of Music faculty; Corequisite: MUSC 1710) Lecture: 3 hours, Fall semester
MUSC 1710 - Sight Singing and Ear Training I  
(1 Credit)  
This is a course in practical sight singing and ear training via solfeggio, to express and comprehend aurally the concepts studied in MUSC 1700 Music Theory I. (Prerequisite: Enrollment in Music/Jazz Studies program or permission of Music faculty; Corequisite: MUSC 1700) Lab: 2 hours, Fall semester

MUSC 1800 - Music Theory II  
(3 Credits)  
A sequel to MUSC 1700, this course continues with the principles of four-part writing, seventh chords, chorale analysis, modulations and two-part counterpoint. Basic keyboard assignments are included. (Prerequisite: MUSC 1700 or permission of Music faculty; Corequisite: MUSC 1810) Lecture: 3 hours, Spring semester

MUSC 1810 - Sight Singing and Ear Training II  
(1 Credit)  
A sequel to MUSC 1710, this course provides practical application of concepts studied in MUSC 1800. Special emphasis is placed on seventh chords and more complex rhythm studies. (Prerequisite: MUSC 1710 or permission of Music faculty; Corequisite: MUSC 1800) Lab: 2 hours, Spring semester

MUSC 2040 - Applied Music: Jazz-Rock Arranging  
(2 Credits)  
This course is designed to introduce students to the skills required for arranging in the jazz and jazz-rock idioms. Topics include instrumental characteristics, writing for winds and rhythm sections, multi-part writing and analysis of works by significant arrangers. Student projects include the preparation of two arrangements for jazz ensemble. (Prerequisites: Music 1800 and 1810) Private lesson: 1 hour per week by appointment. Applied Music Fee to be paid to the bursar after registering for the course. See page 12 Explanation of Fees for more information. Contact the Performing Arts Department for information and to apply. - Applied Music: $378

MUSC 2070 - Jazz Harmony I  
(2 Credits)  
This course is designed to introduce students to theoretical analysis and aural recognition in the jazz idiom. Topics include chord construction and identification, sight singing and ear training. (Prerequisites: MUSC 1800 and 1810) Lecture: 2 hours, Fall semester

MUSC 2080 - Jazz Harmony II  
(2 Credits)  
This course is designed to develop further understanding of theoretical analysis and aural recognition in the jazz idiom. Topics include modal harmony, re-harmonization, sight singing and ear training. (Prerequisite: MUSC 2070) Lecture: 2 hours, Spring semester

MUSC 2090 - Jazz Improvisation I  
(3 Credits)  
This course introduces students to the skills required for jazz improvisation. Topics include chord progressions, scales, modes and the analysis and creation of melodic lines. Musical performance is emphasized. (Prerequisite: MUSC 1800 and 1810) Lecture: 3 hours, Fall semester

MUSC 2100 - Jazz Improvisation II  
(3 Credits)  
This course is designed to further develop students’ improvisational skills. Topics include complex chords, modes of the melodic minor scale and performing standard works in all keys. (Prerequisite: MUSC 2090) Lecture: 3 hours, Spring semester

MUSC 2240 - Applied Music Violin  
(2 Credits)  
The course provides private music instruction on a principal instrument or in principal voice for music majors. Instruction is offered in classical music or jazz (one hour lesson per week) for students already proficient in playing an instrument or singing. Ability to read music is required. All students registered for principal applied music will be required to perform in a student recital at least once per semester. Admission to any of the applied music courses is by audition only. Students will be assigned to CCRI Music faculty. (Prerequisite: College freshman ability in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $378
MUSC 2242 - Applied Music Violin-Secondary
(1 Credit)
Private music instruction on a second instrument or in voice for music majors, or private music instruction for non-majors wishing to study an instrument or voice for credit. Instruction is offered in classical music or jazz (one half-hour lesson per week) for students with basic proficiency in playing an instrument or singing. Elementary ability to read music is necessary. All students are required to perform in a student recital at least once per semester. Admission is by audition only. Students are assigned to CCRI Music faculty. (Prerequisite: Basic proficiency in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $189

MUSC 2250 - Applied Music Violin
(2 Credits)
The course provides private music instruction on a principal instrument or in principal voice for music majors. Instruction is offered in classical music or jazz (one hour lesson per week) for students already proficient in playing an instrument or singing. Ability to read music is required. All students registered for principal applied music will be required to perform in a student recital at least once per semester. Admission to any of the applied music courses is by audition only. Students will be assigned to CCRI Music faculty. (Prerequisite: College freshman ability in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $378

MUSC 2252 - Applied Music Violin-Secondary
(1 Credit)
Private music instruction on a second instrument or in voice for music majors, or private music instruction for non-majors wishing to study an instrument or voice for credit. Instruction is offered in classical music or jazz (one half-hour lesson per week) for students with basic proficiency in playing an instrument or singing. Elementary ability to read music is necessary. All students are required to perform in a student recital at least once per semester. Admission is by audition only. Students are assigned to CCRI Music faculty. (Prerequisite: Basic proficiency in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $189

MUSC 2260 - Applied Music Viola III
(2 Credits)
The course provides private music instruction on a principal instrument or in principal voice for music majors. Instruction is offered in classical music or jazz (one hour lesson per week) for students already proficient in playing an instrument or singing. Ability to read music is required. All students registered for principal applied music will be required to perform in a student recital at least once per semester. Admission to any of the applied music courses is by audition only. Students will be assigned to CCRI Music faculty. (Prerequisite: College freshman ability in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $378

MUSC 2262 - Applied Music Viola-Secondary
(1 Credit)
Private music instruction on a second instrument or in voice for music majors, or private music instruction for non-majors wishing to study an instrument or voice for credit. Instruction is offered in classical music or jazz (one half-hour lesson per week) for students with basic proficiency in playing an instrument or singing. Elementary ability to read music is necessary. All students are required to perform in a student recital at least once per semester. Admission is by audition only. Students are assigned to CCRI Music faculty. (Prerequisite: Basic proficiency in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $189

MUSC 2270 - Applied Music Viola IV
(2 Credits)
The course provides private music instruction on a principal instrument or in principal voice for music majors. Instruction is offered in classical music or jazz (one hour lesson per week) for students already proficient in playing an instrument or singing. Ability to read music is required. All students registered for principal applied music will be required to perform in a student recital at least once per semester. Admission to any of the applied music courses is by audition only. Students will be assigned to CCRI Music faculty. (Prerequisite: College freshman ability in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $378
### MUSC 2272 - Applied Music Viola-Secondary
*(1 Credit)*

Private music instruction on a second instrument or in voice for music majors, or private music instruction for non-majors wishing to study an instrument or voice for credit. Instruction is offered in classical music or jazz (one half-hour lesson per week) for students with basic proficiency in playing an instrument or singing. Elementary ability to read music is necessary. All students are required to perform in a student recital at least once per semester. Admission is by audition only. Students are assigned to CCRI Music faculty. (Prerequisite: Basic proficiency in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $189

### MUSC 2280 - Applied Music Violoncello
*(2 Credits)*

The course provides private music instruction on a principal instrument or in principal voice for music majors. Instruction is offered in classical music or jazz (one hour lesson per week) for students already proficient in playing an instrument or singing. Ability to read music is required. All students registered for principal applied music will be required to perform in a student recital at least once per semester. Admission to any of the applied music courses is by audition only. Students will be assigned to CCRI Music faculty. (Prerequisite: College freshman ability in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $378

### MUSC 2282 - Applied Music Violoncello-Secondary
*(1 Credit)*

Private music instruction on a second instrument or in voice for music majors, or private music instruction for non-majors wishing to study an instrument or voice for credit. Instruction is offered in classical music or jazz (one half-hour lesson per week) for students with basic proficiency in playing an instrument or singing. Elementary ability to read music is necessary. All students are required to perform in a student recital at least once per semester. Admission is by audition only. Students are assigned to CCRI Music faculty. (Prerequisite: Basic proficiency in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $189

### MUSC 2290 - Applied Music Violoncello
*(2 Credits)*

The course provides private music instruction on a principal instrument or in principal voice for music majors. Instruction is offered in classical music or jazz (one hour lesson per week) for students already proficient in playing an instrument or singing. Ability to read music is required. All students registered for principal applied music will be required to perform in a student recital at least once per semester. Admission to any of the applied music courses is by audition only. Students will be assigned to CCRI Music faculty. (Prerequisite: College freshman ability in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $378

### MUSC 2292 - Applied Music Violoncello-Secondary
*(1 Credit)*

Private music instruction on a second instrument or in voice for music majors, or private music instruction for non-majors wishing to study an instrument or voice for credit. Instruction is offered in classical music or jazz (one half-hour lesson per week) for students with basic proficiency in playing an instrument or singing. Elementary ability to read music is necessary. All students are required to perform in a student recital at least once per semester. Admission is by audition only. Students are assigned to CCRI Music faculty. (Prerequisite: Basic proficiency in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $189

### MUSC 2300 - Applied Music String/Electric Bass
*(2 Credits)*

The course provides private music instruction on a principal instrument or in principal voice for music majors. Instruction is offered in classical music or jazz (one hour lesson per week) for students already proficient in playing an instrument or singing. Ability to read music is required. All students registered for principal applied music will be required to perform in a student recital at least once per semester. Admission to any of the applied music courses is by audition only. Students will be assigned to CCRI Music faculty. (Prerequisite: College freshman ability in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $378
MUSC 2302 - Applied Music String/Electric Bass-Secondary
(1 Credit)
Private music instruction on a second instrument or in voice for music majors, or private music instruction for non-majors wishing to study an instrument or voice for credit. Instruction is offered in classical music or jazz (one half-hour lesson per week) for students with basic proficiency in playing an instrument or singing. Elementary ability to read music is necessary. All students are required to perform in a student recital at least once per semester. Admission is by audition only. Students are assigned to CCRI Music faculty. (Prerequisite: Basic proficiency in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $189

MUSC 2310 - Applied Music String/Electric Bass
(2 Credits)
The course provides private music instruction on a principal instrument or in principal voice for music majors. Instruction is offered in classical music or jazz (one hour lesson per week) for students already proficient in playing an instrument or singing. Ability to read music is required. All students registered for principal applied music will be required to perform in a student recital at least once per semester. Admission to any of the applied music courses is by audition only. Students will be assigned to CCRI Music faculty. (Prerequisite: College freshman ability in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $378

MUSC 2312 - Applied Music String/Electric Bass-Secondary
(1 Credit)
Private music instruction on a second instrument or in voice for music majors, or private music instruction for non-majors wishing to study an instrument or voice for credit. Instruction is offered in classical music or jazz (one half-hour lesson per week) for students with basic proficiency in playing an instrument or singing. Elementary ability to read music is necessary. All students are required to perform in a student recital at least once per semester. Admission is by audition only. Students are assigned to CCRI Music faculty. (Prerequisite: Basic proficiency in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $189

MUSC 2320 - Applied Music Flute
(2 Credits)
The course provides private music instruction on a principal instrument or in principal voice for music majors. Instruction is offered in classical music or jazz (one hour lesson per week) for students already proficient in playing an instrument or singing. Ability to read music is required. All students registered for principal applied music will be required to perform in a student recital at least once per semester. Admission to any of the applied music courses is by audition only. Students will be assigned to CCRI Music faculty. (Prerequisite: College freshman ability in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $378

MUSC 2322 - Applied Music Flute-Secondary
(1 Credit)
Private music instruction on a second instrument or in voice for music majors, or private music instruction for non-majors wishing to study an instrument or voice for credit. Instruction is offered in classical music or jazz (one half-hour lesson per week) for students with basic proficiency in playing an instrument or singing. Elementary ability to read music is necessary. All students are required to perform in a student recital at least once per semester. Admission is by audition only. Students are assigned to CCRI Music faculty. (Prerequisite: Basic proficiency in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $189

MUSC 2330 - Applied Music Flute
(2 Credits)
The course provides private music instruction on a principal instrument or in principal voice for music majors. Instruction is offered in classical music or jazz (one hour lesson per week) for students already proficient in playing an instrument or singing. Ability to read music is required. All students registered for principal applied music will be required to perform in a student recital at least once per semester. Admission to any of the applied music courses is by audition only. Students will be assigned to CCRI Music faculty. (Prerequisite: College freshman ability in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $378
### MUSC 2332 - Applied Music Flute-Secondary
(1 Credit)
Private music instruction on a second instrument or in voice for music majors, or private music instruction for non-majors wishing to study an instrument or voice for credit. Instruction is offered in classical music or jazz (one half-hour lesson per week) for students with basic proficiency in playing an instrument or singing. Elementary ability to read music is necessary. All students are required to perform in a student recital at least once per semester. Admission is by audition only. Students are assigned to CCRI Music faculty. (Prerequisite: Basic proficiency in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $189

### MUSC 2340 - Applied Music Oboe III
(2 Credits)
The course provides private music instruction on a principal instrument or in principal voice for music majors. Instruction is offered in classical music or jazz (one hour lesson per week) for students already proficient in playing an instrument or singing. Ability to read music is required. All students registered for principal applied music will be required to perform in a student recital at least once per semester. Admission to any of the applied music courses is by audition only. Students will be assigned to CCRI Music faculty. (Prerequisite: College freshman ability in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $378

### MUSC 2342 - Applied Music Oboe-Secondary
(1 Credit)
Private music instruction on a second instrument or in voice for music majors, or private music instruction for non-majors wishing to study an instrument or voice for credit. Instruction is offered in classical music or jazz (one half-hour lesson per week) for students with basic proficiency in playing an instrument or singing. Elementary ability to read music is necessary. All students are required to perform in a student recital at least once per semester. Admission is by audition only. Students are assigned to CCRI Music faculty. (Prerequisite: Basic proficiency in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $189

### MUSC 2350 - Applied Music Oboe IV
(2 Credits)
The course provides private music instruction on a principal instrument or in principal voice for music majors. Instruction is offered in classical music or jazz (one hour lesson per week) for students already proficient in playing an instrument or singing. Ability to read music is required. All students registered for principal applied music will be required to perform in a student recital at least once per semester. Admission to any of the applied music courses is by audition only. Students will be assigned to CCRI Music faculty. (Prerequisite: College freshman ability in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $378

### MUSC 2352 - Applied Music Oboe-Secondary
(1 Credit)
Private music instruction on a second instrument or in voice for music majors, or private music instruction for non-majors wishing to study an instrument or voice for credit. Instruction is offered in classical music or jazz (one half-hour lesson per week) for students with basic proficiency in playing an instrument or singing. Elementary ability to read music is necessary. All students are required to perform in a student recital at least once per semester. Admission is by audition only. Students are assigned to CCRI Music faculty. (Prerequisite: Basic proficiency in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $378

### MUSC 2360 - Applied Music Clarinet
(2 Credits)
The course provides private music instruction on a principal instrument or in principal voice for music majors. Instruction is offered in classical music or jazz (one hour lesson per week) for students already proficient in playing an instrument or singing. Ability to read music is required. All students registered for principal applied music will be required to perform in a student recital at least once per semester. Admission to any of the applied music courses is by audition only. Students will be assigned to CCRI Music faculty. (Prerequisite: College freshman ability in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $378
MUSC 2362 - Applied Music Clarinet-Secondary
(1 Credit)
Private music instruction on a second instrument or in voice for music majors, or private music instruction for non-majors wishing to study an instrument or voice for credit. Instruction is offered in classical music or jazz (one half-hour lesson per week) for students with basic proficiency in playing an instrument or singing. Elementary ability to read music is necessary. All students are required to perform in a student recital at least once per semester. Admission is by audition only. Students are assigned to CCRI Music faculty. (Prerequisite: Basic proficiency in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $189

MUSC 2370 - Applied Music Clarinet
(2 Credits)
The course provides private music instruction on a principal instrument or in principal voice for music majors. Instruction is offered in classical music or jazz (one hour lesson per week) for students already proficient in playing an instrument or singing. Ability to read music is required. All students registered for principal applied music will be required to perform in a student recital at least once per semester. Admission to any of the applied music courses is by audition only. Students will be assigned to CCRI Music faculty. (Prerequisite: College freshman ability in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $378

MUSC 2372 - Applied Music Clarinet-Secondary
(1 Credit)
Private music instruction on a second instrument or in voice for music majors, or private music instruction for non-majors wishing to study an instrument or voice for credit. Instruction is offered in classical music or jazz (one half-hour lesson per week) for students with basic proficiency in playing an instrument or singing. Elementary ability to read music is necessary. All students are required to perform in a student recital at least once per semester. Admission is by audition only. Students are assigned to CCRI Music faculty. (Prerequisite: Basic proficiency in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $189

MUSC 2380 - Applied Music Bassoon
(2 Credits)
The course provides private music instruction on a principal instrument or in principal voice for music majors. Instruction is offered in classical music or jazz (one hour lesson per week) for students already proficient in playing an instrument or singing. Ability to read music is required. All students registered for principal applied music will be required to perform in a student recital at least once per semester. Admission to any of the applied music courses is by audition only. Students will be assigned to CCRI Music faculty. (Prerequisite: College freshman ability in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $378

MUSC 2382 - Applied Music Bassoon-Secondary
(1 Credit)
Private music instruction on a second instrument or in voice for music majors, or private music instruction for non-majors wishing to study an instrument or voice for credit. Instruction is offered in classical music or jazz (one half-hour lesson per week) for students with basic proficiency in playing an instrument or singing. Elementary ability to read music is necessary. All students are required to perform in a student recital at least once per semester. Admission is by audition only. Students are assigned to CCRI Music faculty. (Prerequisite: Basic proficiency in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $189

MUSC 2390 - Applied Music Bassoon
(2 Credits)
The course provides private music instruction on a principal instrument or in principal voice for music majors. Instruction is offered in classical music or jazz (one hour lesson per week) for students already proficient in playing an instrument or singing. Ability to read music is required. All students registered for principal applied music will be required to perform in a student recital at least once per semester. Admission to any of the applied music courses is by audition only. Students will be assigned to CCRI Music faculty. (Prerequisite: College freshman ability in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $378
MUSC 2392 - Applied Music Bassoon-Secondary  
(1 Credit)  
Private music instruction on a second instrument or in voice for music majors, or private music instruction for non-majors wishing to study an instrument or voice for credit. Instruction is offered in classical music or jazz (one half-hour lesson per week) for students with basic proficiency in playing an instrument or singing. Elementary ability to read music is necessary. All students are required to perform in a student recital at least once per semester. Admission is by audition only. Students are assigned to CCRI Music faculty. (Prerequisite: Basic proficiency in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $189

MUSC 2400 - Applied Music Trumpet  
(2 Credits)  
The course provides private music instruction on a principal instrument or in principal voice for music majors. Instruction is offered in classical music or jazz (one hour lesson per week) for students already proficient in playing an instrument or singing. Ability to read music is required. All students registered for principal applied music will be required to perform in a student recital at least once per semester. Admission to any of the applied music courses is by audition only. Students will be assigned to CCRI Music faculty. (Prerequisite: College freshman ability in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $378

MUSC 2402 - Applied Music Trumpet-Secondary  
(1 Credit)  
Private music instruction on a second instrument or in voice for music majors, or private music instruction for non-majors wishing to study an instrument or voice for credit. Instruction is offered in classical music or jazz (one half-hour lesson per week) for students with basic proficiency in playing an instrument or singing. Elementary ability to read music is necessary. All students are required to perform in a student recital at least once per semester. Admission is by audition only. Students are assigned to CCRI Music faculty. (Prerequisite: Basic proficiency in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $189

MUSC 2410 - Applied Music Trumpet  
(2 Credits)  
The course provides private music instruction on a principal instrument or in principal voice for music majors. Instruction is offered in classical music or jazz (one hour lesson per week) for students already proficient in playing an instrument or singing. Ability to read music is required. All students registered for principal applied music will be required to perform in a student recital at least once per semester. Admission to any of the applied music courses is by audition only. Students will be assigned to CCRI Music faculty. (Prerequisite: College freshman ability in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $378

MUSC 2412 - Applied Music Trumpet-Secondary  
(1 Credit)  
Private music instruction on a second instrument or in voice for music majors, or private music instruction for non-majors wishing to study an instrument or voice for credit. Instruction is offered in classical music or jazz (one half-hour lesson per week) for students with basic proficiency in playing an instrument or singing. Elementary ability to read music is necessary. All students are required to perform in a student recital at least once per semester. Admission is by audition only. Students are assigned to CCRI Music faculty. (Prerequisite: Basic proficiency in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $189

MUSC 2420 - Applied Music French Horn  
(2 Credits)  
The course provides private music instruction on a principal instrument or in principal voice for music majors. Instruction is offered in classical music or jazz (one hour lesson per week) for students already proficient in playing an instrument or singing. Ability to read music is required. All students registered for principal applied music will be required to perform in a student recital at least once per semester. Admission to any of the applied music courses is by audition only. Students will be assigned to CCRI Music faculty. (Prerequisite: College freshman ability in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $378
MUSC 2422 - Applied Music French Horn-Secondary
(1 Credit)
Private music instruction on a second instrument or in voice for music majors, or private music instruction for non-majors wishing to study an instrument or voice for credit. Instruction is offered in classical music or jazz (one half-hour lesson per week) for students with basic proficiency in playing an instrument or singing. Elementary ability to read music is necessary. All students are required to perform in a student recital at least once per semester. Admission is by audition only. Students are assigned to CCRI Music faculty. (Prerequisite: Basic proficiency in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $189

MUSC 2430 - Applied Music French Horn
(2 Credits)
The course provides private music instruction on a principal instrument or in principal voice for music majors. Instruction is offered in classical music or jazz (one hour lesson per week) for students already proficient in playing an instrument or singing. Ability to read music is required. All students registered for principal applied music will be required to perform in a student recital at least once per semester. Admission to any of the applied music courses is by audition only. Students will be assigned to CCRI Music faculty. (Prerequisite: College freshman ability in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $378

MUSC 2432 - Applied Music French Horn-Secondary
(1 Credit)
Private music instruction on a second instrument or in voice for music majors, or private music instruction for non-majors wishing to study an instrument or voice for credit. Instruction is offered in classical music or jazz (one half-hour lesson per week) for students with basic proficiency in playing an instrument or singing. Elementary ability to read music is necessary. All students are required to perform in a student recital at least once per semester. Admission is by audition only. Students are assigned to CCRI Music faculty. (Prerequisite: Basic proficiency in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $189

MUSC 2440 - Applied Music Trombone
(2 Credits)
The course provides private music instruction on a principal instrument or in principal voice for music majors. Instruction is offered in classical music or jazz (one hour lesson per week) for students already proficient in playing an instrument or singing. Ability to read music is required. All students registered for principal applied music will be required to perform in a student recital at least once per semester. Admission to any of the applied music courses is by audition only. Students will be assigned to CCRI Music faculty. (Prerequisite: College freshman ability in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $378

MUSC 2442 - Applied Music Trombone-Secondary
(1 Credit)
Private music instruction on a second instrument or in voice for music majors, or private music instruction for non-majors wishing to study an instrument or voice for credit. Instruction is offered in classical music or jazz (one half-hour lesson per week) for students with basic proficiency in playing an instrument or singing. Elementary ability to read music is necessary. All students are required to perform in a student recital at least once per semester. Admission is by audition only. Students are assigned to CCRI Music faculty. (Prerequisite: Basic proficiency in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $189

MUSC 2450 - Applied Music Trombone
(2 Credits)
The course provides private music instruction on a principal instrument or in principal voice for music majors. Instruction is offered in classical music or jazz (one hour lesson per week) for students already proficient in playing an instrument or singing. Ability to read music is required. All students registered for principal applied music will be required to perform in a student recital at least once per semester. Admission to any of the applied music courses is by audition only. Students will be assigned to CCRI Music faculty. (Prerequisite: College freshman ability in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $378
MUSC 2452 - Applied Music Trombone-Secondary  
(1 Credit)  
Private music instruction on a second instrument or in voice for music majors, or private music instruction for non-majors wishing to study an instrument or voice for credit. Instruction is offered in classical music or jazz (one half-hour lesson per week) for students with basic proficiency in playing an instrument or singing. Elementary ability to read music is necessary. All students are required to perform in a student recital at least once per semester. Admission is by audition only. Students are assigned to CCRI Music faculty. (Prerequisite: Basic proficiency in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $189

MUSC 2460 - Applied Music Tuba/Euphonium  
(2 Credits)  
The course provides private music instruction on a principal instrument or in principal voice for music majors. Instruction is offered in classical music or jazz (one hour lesson per week) for students already proficient in playing an instrument or singing. Ability to read music is required. All students registered for principal applied music will be required to perform in a student recital at least once per semester. Admission to any of the applied music courses is by audition only. Students will be assigned to CCRI Music faculty. (Prerequisite: College freshman ability in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $378

MUSC 2462 - Applied Music Tuba/Euphonium-Secondary  
(1 Credit)  
Private music instruction on a second instrument or in voice for music majors, or private music instruction for non-majors wishing to study an instrument or voice for credit. Instruction is offered in classical music or jazz (one half-hour lesson per week) for students with basic proficiency in playing an instrument or singing. Elementary ability to read music is necessary. All students are required to perform in a student recital at least once per semester. Admission is by audition only. Students are assigned to CCRI Music faculty. (Prerequisite: Basic proficiency in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $189

MUSC 2470 - Applied Music Tuba/Euphonium  
(2 Credits)  
The course provides private music instruction on a principal instrument or in principal voice for music majors. Instruction is offered in classical music or jazz (one hour lesson per week) for students already proficient in playing an instrument or singing. Ability to read music is required. All students registered for principal applied music will be required to perform in a student recital at least once per semester. Admission to any of the applied music courses is by audition only. Students will be assigned to CCRI Music faculty. (Prerequisite: College freshman ability in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $378

MUSC 2472 - Applied Music Tuba/Euphonium-Secondary  
(1 Credit)  
Private music instruction on a second instrument or in voice for music majors, or private music instruction for non-majors wishing to study an instrument or voice for credit. Instruction is offered in classical music or jazz (one half-hour lesson per week) for students with basic proficiency in playing an instrument or singing. Elementary ability to read music is necessary. All students are required to perform in a student recital at least once per semester. Admission is by audition only. Students are assigned to CCRI Music faculty. (Prerequisite: Basic proficiency in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $378

MUSC 2480 - Applied Music Percussion  
(2 Credits)  
The course provides private music instruction on a principal instrument or in principal voice for music majors. Instruction is offered in classical music or jazz (one hour lesson per week) for students already proficient in playing an instrument or singing. Ability to read music is required. All students registered for principal applied music will be required to perform in a student recital at least once per semester. Admission to any of the applied music courses is by audition only. Students will be assigned to CCRI Music faculty. (Prerequisite: College freshman ability in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $378
### MUSC 2482 - Applied Music Percussion-Secondary

(1 Credit)

Private music instruction on a second instrument or in voice for music majors, or private music instruction for non-majors wishing to study an instrument or voice for credit. Instruction is offered in classical music or jazz (one half-hour lesson per week) for students with basic proficiency in playing an instrument or singing. Elementary ability to read music is necessary. All students are required to perform in a student recital at least once per semester. Admission is by audition only. Students are assigned to CCRI Music faculty. (Prerequisite: Basic proficiency in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $189

### MUSC 2490 - Applied Music Percussion

(2 Credits)

The course provides private music instruction on a principal instrument or in principal voice for music majors. Instruction is offered in classical music or jazz (one hour lesson per week) for students already proficient in playing an instrument or singing. Ability to read music is required. All students registered for principal applied music will be required to perform in a student recital at least once per semester. Admission to any of the applied music courses is by audition only. Students will be assigned to CCRI Music faculty. (Prerequisite: College freshman ability in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $378

### MUSC 2492 - Applied Music Percussion-Secondary

(1 Credit)

Private music instruction on a second instrument or in voice for music majors, or private music instruction for non-majors wishing to study an instrument or voice for credit. Instruction is offered in classical music or jazz (one half-hour lesson per week) for students with basic proficiency in playing an instrument or singing. Elementary ability to read music is necessary. All students are required to perform in a student recital at least once per semester. Admission is by audition only. Students are assigned to CCRI Music faculty. (Prerequisite: Basic proficiency in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $189

### MUSC 2500 - Applied Music Piano

(2 Credits)

The course provides private music instruction on a principal instrument or in principal voice for music majors. Instruction is offered in classical music or jazz (one hour lesson per week) for students already proficient in playing an instrument or singing. Ability to read music is required. All students registered for principal applied music will be required to perform in a student recital at least once per semester. Admission to any of the applied music courses is by audition only. Students will be assigned to CCRI Music faculty. (Prerequisite: College freshman ability in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $378

### MUSC 2502 - Applied Music Piano-Secondary

(1 Credit)

Private music instruction on a second instrument or in voice for music majors, or private music instruction for non-majors wishing to study an instrument or voice for credit. Instruction is offered in classical music or jazz (one half-hour lesson per week) for students with basic proficiency in playing an instrument or singing. Elementary ability to read music is necessary. All students are required to perform in a student recital at least once per semester. Admission is by audition only. Students are assigned to CCRI Music faculty. (Prerequisite: Basic proficiency in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $189

### MUSC 2510 - Applied Music Piano

(2 Credits)

The course provides private music instruction on a principal instrument or in principal voice for music majors. Instruction is offered in classical music or jazz (one hour lesson per week) for students already proficient in playing an instrument or singing. Ability to read music is required. All students registered for principal applied music will be required to perform in a student recital at least once per semester. Admission to any of the applied music courses is by audition only. Students will be assigned to CCRI Music faculty. (Prerequisite: College freshman ability in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $378
MUSC 2512 - Applied Music Piano-Secondary
(1 Credit)
Private music instruction on a second instrument or in voice for music majors, or private music instruction for non-majors wishing to study an instrument or voice for credit. Instruction is offered in classical music or jazz (one half-hour lesson per week) for students with basic proficiency in playing an instrument or singing. Elementary ability to read music is necessary. All students are required to perform in a student recital at least once per semester. Admission is by audition only, with a fee for private instruction due at the beginning of the semester and the balance of the instructor’s fee to be paid directly to the private teacher. Students are assigned to CCRI music faculty. Apply directly to the Music Department for detailed audition information and dates. (Prerequisite: Basic proficiency in playing an instrument or singing, as demonstrated in an audition.) - Applied Music: $189

MUSC 2520 - Applied Music Organ
(2 Credits)
The course provides private music instruction on a principal instrument or in principal voice for music majors. Instruction is offered in classical music or jazz (one hour lesson per week) for students already proficient in playing an instrument or singing. Ability to read music is required. All students registered for principal applied music will be required to perform in a student recital at least once per semester. Admission to any of the applied music courses is by audition only. Students will be assigned to CCRI Music faculty. (Prerequisite: College freshman ability in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $378

MUSC 2522 - Applied Music Organ-Secondary
(1 Credit)
Private music instruction on a second instrument or in voice for music majors, or private music instruction for non-majors wishing to study an instrument or voice for credit. Instruction is offered in classical music or jazz (one half-hour lesson per week) for students with basic proficiency in playing an instrument or singing. Elementary ability to read music is necessary. All students are required to perform in a student recital at least once per semester. Admission is by audition only. Students are assigned to CCRI Music faculty. (Prerequisite: Basic proficiency in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $189

MUSC 2530 - Applied Music Organ
(2 Credits)
The course provides private music instruction on a principal instrument or in principal voice for music majors. Instruction is offered in classical music or jazz (one hour lesson per week) for students already proficient in playing an instrument or singing. Ability to read music is required. All students registered for principal applied music will be required to perform in a student recital at least once per semester. Admission to any of the applied music courses is by audition only. Students will be assigned to CCRI Music faculty. (Prerequisite: College freshman ability in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $378

MUSC 2532 - Applied Music Organ-Secondary
(1 Credit)
Private music instruction on a second instrument or in voice for music majors, or private music instruction for non-majors wishing to study an instrument or voice for credit. Instruction is offered in classical music or jazz (one half-hour lesson per week) for students with basic proficiency in playing an instrument or singing. Elementary ability to read music is necessary. All students are required to perform in a student recital at least once per semester. Admission is by audition only. Students are assigned to CCRI Music faculty. (Prerequisite: Basic proficiency in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $189

MUSC 2540 - Applied Music Voice
(2 Credits)
The course provides private music instruction on a principal instrument or in principal voice for music majors. Instruction is offered in classical music or jazz (one hour lesson per week) for students already proficient in playing an instrument or singing. Ability to read music is required. All students registered for principal applied music will be required to perform in a student recital at least once per semester. Admission to any of the applied music courses is by audition only. Students will be assigned to CCRI Music faculty. (Prerequisite: College freshman ability in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $378
MUSC 2542 - Applied Music Voice-Secondary  
(1 Credit)  
Private music instruction on a second instrument or in voice for music majors, or private music instruction for non-majors wishing to study an instrument or voice for credit. Instruction is offered in classical music or jazz (one half-hour lesson per week) for students with basic proficiency in playing an instrument or singing. Elementary ability to read music is necessary. All students are required to perform in a student recital at least once per semester. Admission is by audition only. Students are assigned to CCRI Music faculty. (Prerequisite: Basic proficiency in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $189

MUSC 2550 - Applied Music Voice  
(2 Credits)  
The course provides private music instruction on a principal instrument or in principal voice for music majors. Instruction is offered in classical music or jazz (one hour lesson per week) for students already proficient in playing an instrument or singing. Ability to read music is required. All students registered for principal applied music will be required to perform in a student recital at least once per semester. Admission to any of the applied music courses is by audition only. Students will be assigned to CCRI Music faculty. (Prerequisite: College freshman ability in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $378

MUSC 2552 - Applied Music Voice-Secondary  
(1 Credit)  
Private music instruction on a second instrument or in voice for music majors, or private music instruction for non-majors wishing to study an instrument or voice for credit. Instruction is offered in classical music or jazz (one half-hour lesson per week) for students with basic proficiency in playing an instrument or singing. Elementary ability to read music is necessary. All students are required to perform in a student recital at least once per semester. Admission is by audition only. Students are assigned to CCRI Music faculty. (Prerequisite: Basic proficiency in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $189

MUSC 2600 - Applied Music Saxophone III  
(2 Credits)  
The course provides private music instruction on a principal instrument or in principal voice for music majors. Instruction is offered in classical music or jazz (one hour lesson per week) for students already proficient in playing an instrument or singing. Ability to read music is required. All students registered for principal applied music will be required to perform in a student recital at least once per semester. Admission to any of the applied music courses is by audition only. Students will be assigned to CCRI Music faculty. (Prerequisite: College freshman ability in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $378

MUSC 2602 - Applied Music Saxophone-Secondary  
(1 Credit)  
Private music instruction on a second instrument or in voice for music majors, or private music instruction for non-majors wishing to study an instrument or voice for credit. Instruction is offered in classical music or jazz (one half-hour lesson per week) for students with basic proficiency in playing an instrument or singing. Elementary ability to read music is necessary. All students are required to perform in a student recital at least once per semester. Admission is by audition only. Students are assigned to CCRI Music faculty. (Prerequisite: Basic proficiency in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $189

MUSC 2610 - Applied Music Saxophone  
(2 Credits)  
The course provides private music instruction on a principal instrument or in principal voice for music majors. Instruction is offered in classical music or jazz (one hour lesson per week) for students already proficient in playing an instrument or singing. Ability to read music is required. All students registered for principal applied music will be required to perform in a student recital at least once per semester. Admission to any of the applied music courses is by audition only. Students will be assigned to CCRI Music faculty. (Prerequisite: College freshman ability in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $378
MUSC 2612 - Applied Music Saxophone-Secondary
(1 Credit)
Private music instruction on a second instrument or in voice for music majors, or private music instruction for non-majors wishing to study an instrument or voice for credit. Instruction is offered in classical music or jazz (one half-hour lesson per week) for students with basic proficiency in playing an instrument or singing. Elementary ability to read music is necessary. All students are required to perform in a student recital at least once per semester. Admission is by audition only. Students are assigned to CCRI Music faculty. (Prerequisite: Basic proficiency in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $189

MUSC 2620 - Applied Music Guitar
(2 Credits)
The course provides private music instruction on a principal instrument or in principal voice for music majors. Instruction is offered in classical music or jazz (one hour lesson per week) for students already proficient in playing an instrument or singing. Ability to read music is required. All students registered for principal applied music will be required to perform in a student recital at least once per semester. Admission to any of the applied music courses is by audition only. Students will be assigned to CCRI Music faculty. (Prerequisite: College freshman ability in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $378

MUSC 2622 - Applied Music Guitar-Secondary
(1 Credit)
Private music instruction on a second instrument or in voice for music majors, or private music instruction for non-majors wishing to study an instrument or voice for credit. Instruction is offered in classical music or jazz (one half-hour lesson per week) for students with basic proficiency in playing an instrument or singing. Elementary ability to read music is necessary. All students are required to perform in a student recital at least once per semester. Admission is by audition only. Students are assigned to CCRI Music faculty. (Prerequisite: Basic proficiency in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $189

MUSC 2630 - Applied Music Guitar
(2 Credits)
The course provides private music instruction on a principal instrument or in principal voice for music majors. Instruction is offered in classical music or jazz (one hour lesson per week) for students already proficient in playing an instrument or singing. Ability to read music is required. All students registered for principal applied music will be required to perform in a student recital at least once per semester. Admission to any of the applied music courses is by audition only. Students will be assigned to CCRI Music faculty. (Prerequisite: College freshman ability in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $378

MUSC 2632 - Applied Music Guitar-Secondary
(1 Credit)
Private music instruction on a second instrument or in voice for music majors, or private music instruction for non-majors wishing to study an instrument or voice for credit. Instruction is offered in classical music or jazz (one half-hour lesson per week) for students with basic proficiency in playing an instrument or singing. Elementary ability to read music is necessary. All students are required to perform in a student recital at least once per semester. Admission is by audition only. Students are assigned to CCRI Music faculty. (Prerequisite: Basic proficiency in playing an instrument or singing, as demonstrated in an audition.) Applied Music fee to be paid to the bursar after registering for the course. Contact the Performing Arts Department for detailed audition information and dates, and to apply. - Applied Music: $189

MUSC 2700 - Music Theory III
(3 Credits)
This course involves further study of musical organization to include 18th century polyphony, augmented and Neapolitan sixth chords, borrowed chords and instrumental forms of the 18th and 19th centuries. Basic keyboard assignments are included. (Prerequisite: MUSC 1800 or permission of Music Department, corequisite: MUSC 2710) Lecture: 3 hours, Fall semester

MUSC 2710 - Sight Singing and Ear Training III
(1 Credit)
This course offers a practical aural/vocal study of the concepts presented in MUSC 2700 with particular emphasis upon non-diatomic pitches and modulation. (Prerequisite: MUSC 1810 or permission of Music Program; Corequisite: MUSC 2700) Lab: 2 hours, Fall semester
MUSC 2720 - Applied Music - Music Composition
(2 Credits)
This course provides students the opportunity to study music composition on an individual basis with a private instructor. Students pursue either jazz or classical styles beginning with melodic organization, through various tonal concepts, including counterpoint, harmonization, form and instrumentation. Semester projects are presented in written score and performance. (Prerequisite: MUSC 2700 or 2070, plus MUSC 1140 – Piano Class I or equivalent) Private lesson: 1 hour per week by appointment. Applied Music fee to be paid to the bursar after registering for the course. See page 12 Explanation of Fees for more information. Contact the Performing Arts Department for information and to apply. - Applied Music: $378

MUSC 2721 - Applied Music Composition 2
(2 Credits)
This course provides students the opportunity to continue to study music composition on an individual basis with a private instructor. Students will explore writing topics including modulations, transformation methods such as augmentation, rhythmic transformation, inversion and retrograde, and scoring for two or more different instruments. (Prerequisite: MUSC2720) Applied Music fee to be paid to the bursar after registering for the course. - Applied Music: $378

MUSC 2800 - Chromatic and Modern Music Theory IV
(3 Credits)
A sequel to MUSC 2700, this course covers topics from the late Romantic period through Impressionism and the 20th century. It offers a continuation of forms, extension of pitch organization, to include serialism, aleatory, sound mass, electronic synthesis, MIDI and minimalism. Basic keyboard assignments are included. (Prerequisite: MUSC 2700 or permission of Music faculty; Corequisite: MUSC 2810) Lecture: 3 hours, Spring semester

MUSC 2810 - Sight Singing and Ear Training IV
(1 Credit)
This is a practical aural and vocal study of the advanced concepts presented in MUSC 2800 – Chromatic and Modern Music Theory IV. (Prerequisite: MUSC 2710 or permission of Music faculty, corequisite: MUSC 2800) Lab: 2 hours, Spring semester

NURP (Practical Nursing)

NURP 1015P - Gerontology
(2 Credits)
This course introduces the student to the social, psychological, and physiological changes associated with the aging process with the intent of promoting safety and maintaining optimal levels of health. Nursing management of common health care issues that often affect older adults will be addressed. Lecture: 2 hours

NURP 1010 - Practical Nursing I
(7 Credits)
This course introduces the nursing student to the role of the licensed practical nurse, including legal and ethical standards. Nursing concepts are examined along with evidence-based interventions to meet basic patient needs. This conceptually organized content provides opportunity to achieve a broad understanding of individuals and their health issues that impact the health care system, both institutionally and in the community. Students apply theory in clinical practice, a major focus of which is care of the elderly in subacute care facilities. (Prerequisites: ENGL 1010, HESI Entrance Exam) Lecture: 3 hours per week; Clinical: 12 hours per week. - Lab Fee: $20

NURP 1020 - Practical Nursing 2
(9 Credits)
Building upon the basic concepts and skills taught in NURP 1010, this course expands that conceptual foundation for the student caring for adult patients with common, less complex medical and surgical disorders. Physiological, psychosocial, spiritual, cultural, legal, and ethical aspects of routine patient care are addressed. Attention is also directed toward the practical nurse's role in all phases of health promotion. A variety of medical-surgical facilities are utilized for clinical learning experiences. (Prerequisites: NURP 1010, NURS 1015P, NURS1061P, BIOL 1070). Lecture: 5 hours per week; Clinical: 12 hours per week. - Lab Fee: $20

NURP 1030 - Practical Nursing 3
(10 Credits)
Building upon the concepts, skills, and routine patient care taught in NURP 1010 and NURP 1020, this course rounds out the practical nursing student’s education with an introduction to issues related to care of maternity, pediatric, and mental health patients. Content includes care of the
mother during a normal pregnancy, care of the normal newborn, care of the developing child, and care to persons with mental health disorders. Basic knowledge of the leadership role for the practical nurse is presented. Conceptual foundations for the care of patients with routine medical issues is continued. Students have clinical experience with maternity, pediatric, psychiatric, and adult/geriatric patients. This is the completion course for students who wish to graduate as practical nurse candidates. (Prerequisites: NURP 1020, NURP 1062, PSYC 2010). Lecture: 4 hours per week; Clinical: 12 hours per week. - Lab Fee: $20

NURP 2500 - PN Capstone
(1 Credit)
This 15 hour course prepares soon-to-be-graduates of the Practical Nursing Program to pass the national examination for licensure as a Licensed Practical Nurse. Curriculum content is organized and reviewed. Test-taking skills for application of nursing knowledge to practice are emphasized. This course is meant to boost the confidence level of test candidates by increasing their preparedness and decreasing test anxiety.

NURS (Nursing)

NURS 1015P - Gerontology
(2 Credits)
This course introduces the student to the social, psychological, and physiological changes associated with the aging process with the intent of promoting safety and maintaining optimal levels health. Nursing management of common health issues that often affect older adults is addressed. (Prerequisites: ENGL 1010; HESI Entrance Exam; Corequisites: NURP 1010, NURS 1061P; Corequisite or prerequisite: BIOL 1070) Lecture: 2 hours per week.

NURS 1061P - Pharmacology I
(1 Credit)
This course begins the nursing student's education in the basic principles of pharmacology, establishing a knowledge base that applies to the various routes of medication administration. There is an emphasis on the nurses' role in safe dosage calculation and medication administration. (Prerequisites: ENGL 1010, HESI Entrance Exam; Corequisites: NURP 1010, NURS 1015P; Corequisite or prerequisite: BIOL 1070) Lecture: 1 hour per week.

NURS 1062P - Pharmacology II
(1 Credit)
This course builds on the basic principles of pharmacology, progressing to include major classes of drugs used in the nursing management of patients with commonly occurring physical and mental health problems. (Prerequisites: BIOL 1070; NURP 1010, NURS 1015P, NURS 1061P; Corequisite: NURP 1020; Corequisite or prerequisite: PSYC 2010) Lecture 1 hour per week.

NURS 1010 - Fundamentals of Nursing
(6 Credits)
This course introduces the student to the role of the professional nurse, including legal and ethical standards. Students will learn how to assess and provide safe, evidence-based interventions to meet basic patient needs using the nursing process, with an emphasis on the older adult. Application of foundational concepts and basic psychomotor skills occur in the nursing laboratory and a variety of clinical settings. (Prerequisites: BIOL 1010, ENGL 1010, PSYC 2010; Corequisites: NURS 1015, 1061; Corequisite or prerequisite: BIOL 1020) Lecture: 4 hours per week, Clinical: 6 hours per week. - Lab Fee: $20, Nursing Testing Fee: $100, Nursing Clinical Fee: $100

NURS 1015 - Gerontological Nursing
(2 Credits)
This course introduces the student to the social, psychological, and physiological changes associated with the aging process with the intent of promoting safety and maintaining optimal levels of health. Nursing management of common health issues that often affect older adults are addressed. (Prerequisites: BIOL 1010, ENGL 1010, PSYC 2010; Corequisites: NURS 1015, 1061; Corequisite or prerequisite: BIOL 1020) Lecture: 2 hours per week.

NURS 1020 - Medical Surgical Nursing I
(6 Credits)
This introductory, concept-based nursing course focuses on the acquisition of knowledge and psychomotor skills necessary for delivering safe, evidence-based nursing care to adults in a variety of clinical settings. The emphasis of this course is on common acute and chronic health problems. (Prerequisites: BIOL 1020; NURS 1010, 1015, 1061; Corequisites: NURS 1023, 1062; Corequisite or prerequisite: PSYC 2030) Lecture: 3 hours per week, Clinical: 9 hours per week. - Lab Fee: $20, Nursing Testing Fee: $100, Nursing Clinical Fee: $100
### NURS 1023 - Mental Health Nursing
(3 Credits)
In this course, the student acquires a basic knowledge of the causes, treatment, prevention and patient-centered nursing care for common and severe mental health problems across the lifespan. Emphasis is placed on application of therapeutic communication techniques, psychosocial assessment skills, and the nursing process with an integration of ethical and legal concepts. (Prerequisites: BIOL 1020; NURS 1010, 1015, 1061; Corequisite: NURS 1020, 1062; Corequisite or prerequisite PSYC 2030) Lecture: 2 hours per week, Clinical: 6 hours per week for 7 weeks.

### NURS 1061 - Pharmacology I
(1 Credit)
This course begins the nursing student's education in the basic principles of pharmacology, establishing a knowledge base that applies to the various routes of medication administration. An emphasis is placed on the nursing role in safe dosage calculation and medication administration. (Prerequisites: BIOL 1010; ENGL 1010; PSYC 2010; Corequisite: NURS 1010, 1015; Corequisite or prerequisite: BIOL 1020) Lecture: 1 hour per week.

### NURS 1062 - Pharmacology II
(1 Credit)
This course builds on the basic principles of pharmacology, progressing to include major classes of drugs that are used in the nursing management of patients with commonly occurring physical and mental health problems. (Prerequisites: BIOL 1020; NURS 1010, 1015, 1061; Corequisites: NURS 1020, 1023; Corequisite or prerequisite: PSYC 2030) Lecture: 1 hour per week.

### NURS 1063 - Pharmacology III
(1 Credit)
This course focuses on the role of the professional nurse in the administration of medications used in the management of patients with complex multisystem health problems across the lifespan. (Prerequisites: NURS 1020, 1023, 1062; PSYC 2030; Corequisites: NURS 2040, 2050) Lecture: 1 hour per week.

### NURS 2030 - Concepts in Nursing Practice
(4 Credits)
This 4 credit course is designed to facilitate successful entry of licensed practical nurses into LPN-to-RN option within the Associate Degree program. It provides theoretical and clinical content from the first two semesters of the registered nurse program. The course is designed to expand on the breadth and depth of the common content from practical nurse education programs, introduce the new concept based curriculum, expand on nursing processes utilizing case studies, and concept mapping, explore evidence based nursing practice, and reinforce skills specific to ADN programs through lab and simulated clinical experience.

### NURS 2040 - Medical/Surgical Nursing II
(5 Credits)
This intermediate-level medical/surgical course expands on concepts presented in the prior courses, with an emphasis on application of professional nursing judgment to care for patients with complex acute medical/surgical conditions. Students learn to prioritize and manage evidence-based care for 1-2 patients. (Prerequisites: NURS 1020, 1023, 1062; PSYC 2030; Corequisites: NURS 1063, 2050) Lecture: 6 hours per week, Clinical: 12 hours per week over 7.5 weeks. - Lab Fee: $20, Nursing Testing Fee: $100, Nursing Clinical Fee: $100

### NURS 2050 - Maternal and Child Health Nursing
(6 Credits)
Building on concepts learned in previous courses, the emphasis of this course is on utilizing evidence-based nursing judgment to assist the new family in a variety of clinical settings to obtain optimum levels of health during the childbearing and childrearing years. (Prerequisites: NURS 1020, 1023, 1062; PSYC 2030; Corequisites: NURS 1063, 2040) Lecture: 8 hours per week, Clinical: 12 hours per week over 7.5 weeks.

### NURS 2060 - Medical-Surgical Nursing III
(6 Credits)
This advanced-level medical/surgical course builds on and emphasizes analysis and synthesis of theory from prior nursing courses. Students will learn to apply professional nursing judgment to the care of patients with emergent and/or multisystem health problems. Emphasis is placed on managing care and collaborating with an interprofessional team for multiple patient assignments. (Prerequisites: NURS 1063, 2040, 2050; Corequisite: NURS 2500; Corequisite or prerequisite: BIOL 2210) Lecture: 8 hours per week, Clinical 12 hours per week over 7.5 weeks.
NURS 2500 - Nursing Capstone
(3 Credits)
In this course, students synthesize acquired knowledge and apply that knowledge in a clinical immersion experience. Students examine and apply an understanding of professional nursing standards, ethical problem-solving, evidence-based practice, and a commitment to lifelong learning. The clinical experience provides opportunities for teamwork and collaboration in managing care for groups of patients, development of leadership skills, and participation in quality improvement activities. (Prerequisite: NURS 2060; Corequisite or prerequisite: BIOL 2210) Lecture: 2 hours per week, Clinical: 12 hours per week over 7.5 weeks. - NCLEX Review Course: $300

OCEN (Oceanography)

OCEN 1010 - Introduction to Oceanography
(3 Credits)
This course is a study of the marine environment describing principles of physical, chemical, biological and geological oceanography. Topics include the origin of oceans; the composition and history of seawater; oceanic currents, tides, waves and beaches; the sea floor; plant and animal life in the sea; oceanic resources and food; and marine pollution. Note: Completion of both OCEN 1010 and OCEN 1030 will satisfy one laboratory science requirement in the liberal arts and general studies programs. Lecture: 3 hours

OCEN 1030 - Oceanography Laboratory
(1 Credit)
This lab course emphasizes topics covered in OCEN 1010 (Introduction to Oceanography) such as ocean life, sediments, salinity, currents and plate tectonics. It allows a more hands-on approach to learning. Note: Completion of both OCEN 1010 AND OCEN 1030 will satisfy one laboratory science requirement in the Liberal Arts and General Studies programs. Lab: 2 hours - Lab Fee: $10

OCTA (Occupational Therapy Assistant)

OCTA 1000 - Introduction to Occupational Therapy
(2 Credits)
This course provides an overview of occupational therapy that includes the history, philosophy and theoretical foundations of the profession, as well as current issues in the field. Topics include: treatment models; factors contributing to health, wellness and dysfunction; and the impact of multicultural factors in treatment. The relationship of the certified occupational therapy assistant to other health professionals is explored. Professional standards and ethics are addressed, including state regulations, credentialing requirements and membership in professional organizations. Lecture: 2 hours

OCTA 1010 - Fundamentals of Treatment I
(4 Credits)
This course covers collaboration with the occupational therapist in data gathering, evaluation, treatment planning and treatment implementation designed to improve occupational performance. It offers experiential learning in the analysis, selection, use, adjustment, adaptation and fabrication of assistive devices, as well as appropriate documentation of all aspects of the therapy process. (Corequisite: RHAB 1030 & OCTA 1070) Lecture: 3 hours, Lab: 3 hours - Lab Fee: $20

OCTA 1030 - Fundamentals of Treatment II
(4 Credits)
This course approaches the concept of activity analysis through the definition of occupational performance areas, task components and occupational challenges. Individual and group activities are analyzed and graded in the context of relevant occupational environments. (Prerequisite: OCTA 1010, 1070, RHAB 1030 and 1110; Corequisite: OCTA 1040, 1050, 1060 and 1080) Lecture: 3 hours, Lab: 3 hours - Lab Fee: $20

OCTA 1040 - Gerontologic Occupational Therapy
(3 Credits)
This course examines the aging process and offers an overview of medical conditions and precautions associated with treatment of the elderly client. Therapeutic modalities of treatment are practiced in the laboratory setting. (Prerequisite: OCTA 1010, 1070, RHAB 1030 and 1110; Corequisite: OCTA 1030, 1050, 1060 and 1080) Lecture: 2 hours, Lab: 2.5 hours - Lab Fee: $20
OCTA 1050 - Pediatric Occupational Therapy
(4 Credits)
This course examines the physical and social needs of the growing child and explores their impact on the learning and adaptation processes that accompany the development of performance skills. It includes an overview of diseases and disabilities that may affect children seen in school-based occupational therapy, accompanied by theory and practice as it relates to this population. (Prerequisite: OCTA 1010, 1070, RHAB 1030 and 1110; Corequisite: OCTA 1030, 1040, 1060 and 1080) Lecture: 3 hours, Lab: 3 hours - Lab Fee: $20

OCTA 1060 - Level I Fieldwork
(1 Credit)
This is the first clinical experience in which students participate. It consists of a combination of 40 hours of fieldwork in a variety of practice settings located within the Lifespan Health Care System. (Prerequisite: OCTA 1010, 1070, RHAB 1030 and 1110; Corequisite: OCTA 1030, 1040, 1050 and 1080) Clinical: 35 hours

OCTA 1070 - Tests and Measurements for Occupational Therapy Assistants
(2 Credits)
This course focuses on the methodology for joint measurement and manual muscle testing. Emphasis is placed on the study of the upper extremities. (Corequisite: RHAB 1030 and OCTA 1010) Lecture: 1 hour, Lab: 2 hours - Lab Fee: $20

OCTA 1080 - Therapeutic Activity Group Skills
(2 Credits)
Therapeutic activity groups are frequently used in physical rehabilitation facilities, nursing homes, mental health programs and wellness programs. This course provides students with an opportunity to explore the use of group activity for therapeutic effect. Students design their own group and conduct it in a community setting. There is an emphasis on occupational therapy framework and theory in designing groups. (Prerequisite: OCTA 1010, 1070, RHAB 1030 and 1110; Corequisite: OCTA 1030, 1040, 1050 and 1060) Lecture: 1 hour, Lab: 1 hour

OCTA 2010 - Psychosocial Occupational Therapy
(4 Credits)
This course reviews psychiatric disorders and the interdisciplinary approach to the treatment of conditions commonly exhibited in clients referred to occupational therapy in a mental health setting. Topics of discussion include: clinical description and etiology of mental health diagnoses; use of the clinical team; legal issues; nomenclature; and alternatives to hospitalization, including outpatient programs; supervised living apartments; group homes and case management. Use of therapeutic groups and 1:1 interventions and treatment are practiced in lab. (Prerequisites: OCTA 1030, 1040, 1050, 1060, 1080; Corequisite: OCTA 1020) Lecture: 3 hours, Lab: 3 hours - Lab Fee: $20

OCTA 2020 - Physical Rehabilitation and Health
(4 Credits)
This course teaches techniques for management of physical dysfunction cases typically referred to occupational therapy. Topics include screening, evaluation, treatment planning and implementation, interventions and prevention techniques as utilized by occupational therapy assistants in a variety of clinical settings. Supervision concepts and reimbursement systems are discussed. Therapeutic intervention and treatment modalities are practiced in the laboratory setting. (Prerequisites: OCTA 1030, 1040, 1050, 1060, 1080; Corequisite: OCTA 2010) Lecture: 3 hours, Lab: 3 hours - Lab Fee: $20

OCTA 2030 - Occupational Therapy Assistant Fieldwork IIA
(4 Credits)
This course is an eight week placement in a clinical site. Under the supervision of licensed occupational therapists, students apply clinical reasoning skills which they have learned in the Occupational Therapy Assistant Program to individuals and groups. This fulfills one half of the requirement for level II fieldwork as required for graduation from the Occupational Therapy Assistant Program and meets the accreditation standards set by the Accreditation Council for Occupational Therapy Education. (Prerequisite: OCTA 2010 and 2020; Co-requisites: OCTA 2035 and 2040) - Lab Fee: $20

OCTA 2035 - Occupational Therapy Assistant Fieldwork IIB
(4 Credits)
This course is an eight-week placement in a clinical site. Under the supervision of licensed occupational therapists, students apply clinical reasoning skills which they have learned in the Occupational Therapy Assistant Program to individuals and groups. This fulfills one half of the requirement for level II fieldwork as required for graduation from the Occupational Therapy Assistant Program and meets the accreditation standards set by the Accreditation Council for Occupational Therapy Education. (Pre-requisite: OCTA 2010 and 2020; Co-requisites: OCTA 2030 and 2040)
OCTA 2040 - Occupational Therapy Assistant Fieldwork Seminar
(2 Credits)
This course consists of lecture, demonstration, group discussion, student presentation and fieldwork assignments that are designed to assist students with transitioning from the classroom to the clinic setting. It allows students to share their fieldwork experiences with peers, expanding the knowledge base that each student will take into employment. (Pre-requisite: OCTA 2010 and 2020; Co-requisites: OCTA 2030 and 2035) Lecture: 2 hours

OFTD (Administrative Office Tech.)

OFTD 1105 - Essential Note Taking Skills
(1 Credit)
Note taking is a one-semester course designed to improve writing speed; take fast and accurate notes at meetings, on the phone, and/or at school; and enhance your professional productivity and academic success. It is an efficient, rapid writing skill designed to capture key points from spoken word or written text. Lecture: 1 hour

OFTD 1120 - Microcomputer Keyboarding
(3 Credits)
This course is designed for business use. It emphasizes proficiency in touch-typing keyboard mastery, proper typing techniques and the development of speed and accuracy. It also provides practice in applying these skills to document formatting such as centering and business letters. Individualized instruction units are given throughout the course. A minimum typing speed of 15 wpm is required to pass this course. Lecture: 4 hours, Lab: 1 hour - Lab Fee: $20

OFTD 1130 - Editing Skills for Office Communications I
(2 Credits)
This course emphasizes the elements of style applied in written business communications. It is for the student who is developing editing skills in order to transcribe accurately. There is particular concentration on spelling, proofreading, word division, capitalization, expression of numbers and abbreviations in dictated material. Lecture: 2 hours

OFTD 1140 - Office Technology & Procedures I
(3 Credits)
This course is designed to provide students with a basic background in the rapidly expanding applications of office technology, including an introduction to telemarketing telecommunications, Web research, online projects, PowerPoint presentations and Outlook. In addition, students develop their communication skills and learn about proper business attitudes with an emphasis on developing soft skills (people skills), critical thinking and problem-solving skills. Lecture: 3 hours

OFTD 1160 - Basic Keyboarding Mastery
(2 Credits)
This course is designed for the personal development of keyboarding skill. It is intended for the beginning student and those who have had a minimum of keyboarding instruction. The major objectives are to develop touch control of the keyboard and proper typing techniques, build basic speed and accuracy skills and provide practice in applying these beginning skills to basic document formatting. Lecture: 2 hours, Lab: 1 hour - Lab Fee: $20

OFTD 1170 - Office Transcription I
(2 Credits)
This course develops entry-level proficiency in transcribing dictation from tapes to final copy. It is designed to refine and integrate office skills and applications. Emphasis is on the application of language arts skills in the production of written communications. (Prerequisites: OFTD 1120 and 1130) Lecture: 2 hours, Lab: 1 hour - Lab Fee: $20

OFTD 1180 - Speech Recognition Software Applications I
(1 Credit)
This course assists students in increasing their computer-use productivity. Topics include enunciation, correcting speech errors and navigating and formatting documents. Students should be able to attain speeds of about 130 wpm or more with 95-98 percent accuracy. Lecture: 1 hour - Lab Fee: $10
### OFTD 1190 - Speech Recognition Software Applications II
(1 Credit)
The purpose of this course is to gain further expertise in the creation of voice-typed documents by building on the skills attained in OFTD 1180. In addition, students are trained in the use of career-specific terminology and applications. (Prerequisite: OFTD 1180) Lecture: 1 hour - Lab Fee: $10

### OFTD 1220 - Microsoft Office Applications I
(4 Credits)
This course further refines students' keyboarding speed and accuracy. In addition, the beginning and intermediate levels of MS Word skills are covered, as well as the beginning level of MS Excel. The keyboarding speed needed to pass this course is 25-50 wpm. (Prerequisite: OFTD 1120) Lecture: 4 hours, Lab: 1 hour - Lab Fee: $20

### OFTD 1250 - Office Accounting
(2 Credits)
This course develops the office worker's understanding of the basic procedures used in keeping a set of accounting records in a service business. Basic accounting principles are covered along with their implementation in an electronic office system. Lecture: 2 hours, Lab: 1 hour - Lab Fee: $10

### OFTD 1280 - Editing Skills for Office Communications II
(3 Credits)
This course continues with the mechanics of the transcription process in business correspondence. It includes sentence structure as a foundation for an intense study of punctuation rules required for business communication. Students are trained to consult a reference manual for variations in usage. Lecture: 3 hours

### OFTD 1370 - Business File Management
(2 Credits)
This course provides a foundation in business information maintenance. It covers life cycle concepts of document control, creation, filing, storage and retrieval procedures using a manual method and introduces electronic filing. Students are also introduced to the basics of Access and Excel. Lecture: 2 hours - Lab Fee: $20

### OFTD 1380 - Customer Service Essentials
(5 Credits)
This course will equip students with the knowledge and skills that will enable them to be a successful and proactive part of a customer service team. It focuses on strategies for effective customer service, troubleshooting skills, call-handling procedures, call center metrics, incident management, communications skills, and call center processes. This course prepares students to take the HDI Customer Service Representative Exam. Lecture: 5 hours

### OPTI (Opticianry)

#### OPTI 1010 - Optical Theory I
(3 Credits)
This course examines the nature of light and details the behavior of light when it encounters various refractive surfaces. In addition, the course examines lens power, indices, and prisms. This course establishes the foundation for advanced ophthalmic applications. (Co-requisites: OPTI 1020, 1030, 1040) Lecture: 3 hours

#### OPTI 1020 - Ophthalmic Laboratory I
(3 Credits)
This course introduces students to terms, instruments, calculations, lenses, frames, materials, and processes to be used in the surfacing and finishing of ophthalmic prescription eyewear. (Co-requisites: OPTI 1010, 1030, 1040) Lecture: 2 hours, Lab: 1 hour - Lab Fee: $20

#### OPTI 1030 - Ophthalmic Dispensing I
(3 Credits)
This course introduces students to Opticianry and the procedures necessary for becoming a dispensing optician. Topics include the history of the profession, patient/client measurements, prescription analysis, ophthalmic frame and lens materials, and selection and adjustment techniques. (Co-requisites: OPTI 1010, 1020, 1040) Lecture: 3 hours
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>OPTI 1040</td>
<td>Anatomy and Physiology of the Eye</td>
<td>3</td>
<td>This course gives opticianry students an insight into the anatomical structure of the eye and its adnexa. Students learn the function of the parts of the eye as they relate to vision and fitting of contact lenses. Learners are presented with common pathologies of the eye and ocular pharmacology. (Corequisites: OPTI 1010, 1020, 1030) Lecture: 3 hours</td>
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<tr>
<td>OPTI 1050</td>
<td>Optical Theory II</td>
<td>3</td>
<td>This continues the study of optical theory. Topics include: prism notation, and vertical imbalance. It also presents methods of correction such as vertex power, illuminance, reflection and absorption, diffraction, third order aberrations, lens tilt, anisometropia, and spectacle magnification. (Prerequisites: OPTI 1010, 1020, 1030, 1040; Co-requisites: OPTI 1060, 1070, 1080) Lecture: 3 hours</td>
</tr>
<tr>
<td>OPTI 1060</td>
<td>Ophthalmic Laboratory II</td>
<td>3</td>
<td>This course continues the study of prescription eyewear fabrication processes. Students learn to calibrate and maintain equipment, layout and edge multi-focal lenses, tint and coat lenses, perform advanced neutralization of lenses for verification or duplication purposes. Instruction is provided in techniques for special surfacing processes such as bicentric grinding and prism thinning. (Prerequisites: OPTI 1010, 1020, 1030, 1040; Co-requisites: OPTI 1050, 1070, 1080) Lecture: 2 hours, Lab: 1 hour - Lab Fee: $20</td>
</tr>
<tr>
<td>OPTI 1070</td>
<td>Ophthalmic Dispensing II</td>
<td>3</td>
<td>This course continues an examination of lens materials, types, and fitting with a particular focus on multi-focals, progressive addition lenses, absorptive lenses, and special lens designs. Focus is on understanding and using ophthalmic instruments and devices to take patient measurements, read prescriptions, and perform frame adjustments. Governing agencies of the optical profession and legal and ethical issues are introduced. (Prerequisites: OPTI 1010, 1020, 1030, 1040; Co-requisites: OPTI 1050, 1060, 1080) Lecture: 3 hours</td>
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<tr>
<td>OPTI 1080</td>
<td>OphthalmicDispensing Clinical I</td>
<td>3</td>
<td>This course is part of a three semester Dispensing Laboratory. During the three semesters, the student should learn and demonstrate competencies from the competency lists. By the end of the three experiences, students must demonstrate all listed competencies. Students may be required to demonstrate some competencies in more than one course. (Prerequisites: OPTI 1010, 1020, 1030, 1040; Co-requisites: OPTI 1050, 1060, 1070) Clinical: 90 hours</td>
</tr>
<tr>
<td>OPTI 2010</td>
<td>Ophthalmic Dispensing Clinical II</td>
<td>3</td>
<td>This course is part of a three (3) semester Dispensing Laboratory. During the three semesters, students should learn and demonstrate competencies from the competency lists. By the end of the three experiences, students must demonstrate all listed competencies. Students may be required to demonstrate some competencies in more than one course. (Prerequisites: OPTI 1050, 1060, 1070, 1080, 2020; Co-requisites: OPTI 2040, 2060) Clinical: 90 hours</td>
</tr>
<tr>
<td>OPTI 2020</td>
<td>Ophthalmic Laboratory Skills I</td>
<td>3</td>
<td>This course is the skills component of OPTI 1020: Ophthalmic Laboratory I. Students will develop competencies in performing clinical laboratory skills at the introductory level under the direction and supervision of the faculty. Emphasis is placed on accuracy and attaining skills that meet acceptable professional level. (Prerequisite: OPTI 1010, 1020, 1030, 1040, 1050, 1060, 1080) Lecture: 2 hours, Lab: 2 hours - Lab Fee: $20</td>
</tr>
<tr>
<td>OPTI 2030</td>
<td>Optical Business Management</td>
<td>3</td>
<td>This course presents basic management and leadership skills necessary for a successful eye care office. The course teaches analysis, creative thinking, judgment, planning strategy, and implementation skills necessary for optical business challenges. (Prerequisites: OPTI 2010, 2020, 2040, 2060; Co-requisites: OPTI 2050, 2070) Lecture: 3 hours</td>
</tr>
</tbody>
</table>
OPTI 2040 - Introduction to Contact Lenses
(3 Credits)
This course includes a historical review of contact lenses as well as theory; design and optical principles. Indications and contraindications for contact lenses wear, patient evaluation, lens types and availability, and fundamental techniques and fitting philosophies are covered. The uses of the biomicroscope, keratometer, and radioscope are presented as well as patient education on care, cleaning, insertion, and removal of contact lenses. (Prerequisites: OPTI 1050, 1060, 1070, 1080, 2020; Co-requisites: OPTI 2040, 2060) Lecture: 3 hours

OPTI 2050 - Ophthalmic Dispensing Clinical III
(3 Credits)
This course is part of a three (3) semester Dispensing Laboratory. During the three semesters, students should learn and demonstrate listed competencies. By the end of the three experiences, students must demonstrate all competencies listed. Students may be required to demonstrate some competencies in more than one course. (Prerequisites: OPTI 2010, 2020, 2040, 2060; Co-requisites: OPTI 2030, 2070) Clinical: 90 hours

OPTI 2060 - Ophthalmic Laboratory Skills II
(3 Credits)
This course is the clinical component of OPTI 1060: Ophthalmic Laboratory II. Students will develop competencies in performing clinical laboratory skills at the advanced level under the direction and supervision of the faculty. Emphasis is placed on accuracy and attaining skills that meet acceptable professional level. (Prerequisite: OPTI 1010, 1020, 1030, 1040, 1050, 1060, 1070, 1080, 2020; Co-requisites: OPTI 2010, 2040) Lecture: 2 hours, Lab: 2 hours - Lab Fee: $20

OPTI 2070 - Contact Lens Clinical I
(3 Credits)
This course includes a historical review of contact lenses as well as theory; design and optical principles. Indications and contraindications for contact lens wear, patient evaluation, lens types and availability, and fundamental techniques and fitting philosophies are covered. The uses of the biomicroscope, keratometer, and radioscope are presented as well as patient education on care, cleaning, insertion, and removal of contact lenses. (Prerequisites: OPTI 2010, 2020, 2040, 2060; Co-requisites: OPTI 2030, 2050) Clinical: 90 hours

PHED (Physical Education)

PHED 1210 - Team Sports
(1 Credit)
This course introduces students to the basic skills for team oriented sports, including the rules and strategy of the games. Special emphasis is placed on the enjoyment of these team sport activities in a recreational environment.

PHED 1400 - Swimming I-Primary Skills
(1 Credit)
This course focuses on helping students feel comfortable in the water in order to enjoy the water safely. For students who have little or no experience. - Lab Fee: $10

PHED 1410 - Swimming II-Stroke Development
(1 Credit)
This course is designed for those who have experience in the water and would like to work on development of the key strokes. Additional water safety skills are presented. - Lab Fee: $10

PHED 1430 - Water Safety Instructor
(3 Credits)
This course will teach American Red Cross candidates to teach the infant and preschool aquatics program and the seven levels of the Learn-to-Swim Program. (Prerequisite: permission of instructor) - Lab Fee: $20

PHED 1440 - Lifeguard Training
(2 Credits)
This course is designed to teach lifeguards the skills and knowledge needed to prevent and respond to aquatic emergencies. Lifesaving materials of the American Red Cross are included to meet requirements for the state of Rhode Island. - Lab Fee: $20
PHED 1610 - Essentials of Physical Fitness
(3 Credits)
This course focuses on the components of physical fitness. Lectures are focused on nutrition, cardiorespiratory endurance, muscular strength, muscular endurance, and flexibility. Students will be active participants in the development of individualized fitness programs.

PHED 1620 - Advanced Physical Fitness and Wellness
(3 Credits)
A continuation of PHED 1610, this course provides more comprehensive and advanced techniques of fitness. Emphasis is placed upon personal responsibility for lifestyle changes to foster wellness. (Prerequisite: PHED 1610) - Lab Fee: $20

PHED 1630 - Weight Training and Sports Conditioning I
(2 Credits)
This introductory course provides a foundation of knowledge, skills and techniques in resistance training as well as an opportunity for the creation of an individualized training program. - Lab Fee: $20

PHED 1645 - Kettles and Ropes
(2 Credits)
This course incorporates kettlebells, suspension bodyweight training and wave velocity training in an overall cardiorespiratory and strength training program. Students are responsible for creating a training program to meet their functional strength, endurance and cardiorespiratory needs.

PHED 1665 - Advanced Weight Training
(3 Credits)
This course will provide an opportunity for the development and achievement of performance goals attained by the application of advanced lifting techniques. Olympic lifts, functional fitness, agility training and sprinting will be incorporated into the periodized training plan. Lecture: 2 hours, Lab: 2 hours

PHED 1670 - Athletic Performance Enhancement
(3 Credits)
The purpose of this course is to introduce basic psychological concepts and principles with special reference to motor performance, learning motor skills, perception and emotion in sport situations. The study of numerous psychological parameters pertinent to the prospective athletic coach, teacher, parent and student-athlete are investigated. - Lab Fee: $20

PHED 1700 - Prevention and Care of Athletic Injuries and First Aid
(3 Credits)
This course will introduce techniques for conditioning, taping and bandaging as they relate to the prevention and care of athletic injuries. The latest Red Cross procedure is reviewed with the opportunity to receive standard Red Cross certification. Lecture: 2 hours, Lab: 1 hour - Lab Fee: $20

PHED 1720 - Real Coaching
(3 Credits)
Designed for teachers who coach, coaches who teach and others who lead sports, this course provides an analysis of the operational, managerial, physiological, social, ethical and moral aspects of coaching. Those currently coaching or with aspirations of coaching at the secondary level or intercollegiate level will find this course particularly useful. The Rhode Island Interscholastic League recognizes the content of this course satisfies the Rhode Island Interscholastic League requirement for coaching eligibility. Lecture: 3 hours - Lab Fee: $20

PHED 1730 - Sport & Recreation Operations
(3 Credits)
This course is designed to introduce students to the broad range of administrative responsibilities involved in conducting sports and recreation programs. Those with aspirations of pursuing a career in sport administration should find this course particularly useful. Lecture: 3 hours
## PHIL (Philosophy)

### PHIL 1010 - Introduction to Philosophy  
(3 Credits)

This course is a systemic study of basic philosophical questions, including: Is there a God? How is knowledge acquired? Does life have meaning? These questions are examined by reading major Western philosophers such as Plato, Aristotle, Descartes and others. Students learn and practice several critical reasoning skills applicable to academic, professional and personal areas of life. Lecture: 3 hours

### PHIL 2020 - Philosophy of Religion  
(3 Credits)

A systemic study of basic issues in the philosophy of religion, this course covers the concepts of God, traditional arguments for the existence of God, the problem of evil, mysticism and philosophical atheism. Students engage in theoretical discussions, develop critical reasoning skills and gain practical insight into their personal philosophy of religion. Lecture: 3 hours

### PHIL 2030 - Ethics  
(3 Credits)

This course is a critical analysis of main theories of moral conduct. In the areas of personal and social morality (e.g., citizenship, employment, student life, family life, etc.), some major moral problems are discussed such as capital punishment, abortion, race relations, social justice, war, sex and marriage, and ecology. When student curriculum needs in a given program, such as Law Enforcement, Nursing, etc., require a special focus, the instructor can provide special assignments to meet those needs. Note: Meets ethics requirement. Lecture: 3 hours

### PHIL 2040 - Logic  
(3 Credits)

This course studies the basic principles of correct thinking in semantics and in deductive and inductive reasoning. It introduces beginning students to the logical techniques of thought and argument. Exercises incorporate various current issues and topics. Clear and adequate thinking is the goal of the course. Lecture: 3 hours

## PHLE (Phlebotomy)

### PHLE 1010 - Phlebotomy I  
(6 Credits)

This course presents the theory and practice of phlebotomy, that includes such topics as: phlebotomists in health care delivery systems; medical terminology; infection control and safety; anatomy and physiology of body systems; collection equipment, reagents and interfering factors in blood collection; venipuncture and capillary puncture blood collection procedures and requisitioning. Laboratory experiences include venipuncture practice by vacutainer, syringe and winged collection set on adult and pediatric training arms. Skin puncture collection procedures using a variety of lancets to collect unopettes and microtainers, are performed. Blood smear preparation, bleeding time and quality control are also practiced. Lecture: 5 hours, Lab: 2 hours - Lab Fee: $20

### PHLE 1020 - Phlebotomy II  
(6 Credits)

This course includes collection and handling of non-blood specimens, quality assurance, specimen handling, specimen processing, communications techniques, legal issues, professionalism and arterial puncture. A review of CLSI Standards for skin puncture and venipuncture is included. In the college laboratory, students perform specimen processing, blood smear preparation, blood culture collection, skin puncture and venipuncture collection. Students spend a total of 120 hours of clinical training in phlebotomy techniques at an affiliated site. Note: students must be available to train weekdays (8 hrs x 5 days/week) for three (3) consecutive weeks. Lecture: 5 hours, Lab: 2 hours, Clinical: 120 hours - Lab Fee: $20

## PHTA (Physical Therapist Assistant)

### PHTA 1000 - Introduction to the Physical Therapist Assistant  
(2 Credits)

This course is open to students who are considering admission into the Physical Therapist Assistant Program. An overview of the field of physical therapy and the roles of the physical therapist and physical therapist assistant within the health care delivery system are presented. Topics such as licensure, reimbursement, education and employment opportunities and professional organizations are covered. Ethical issues facing health care
workers, the Code of Ethics for the Physical Therapist Assistant and the attitudes of health care workers toward illness and injury are discussed. Lecture: 2 hours

**PHTA 1010 - Physical Therapist Assistant I**  
*(6 Credits)*  
This course will introduce students to fundamental patient care procedures used in physical therapy. Students become proficient in instructing and assisting patients to perform functional mobility activities in a manner that is safe for the patient and practitioner. They learn to perform techniques for wound and edema management while avoiding transmission of infection. Techniques for ambulation training including the measurement and use of assistive devices (crutches, canes, walkers) and wheelchair measurement and mobility are taught and practiced in class and lab settings. Students are introduced to basic principles and learn to perform simple therapeutic exercises. Lecture: 4 hours, Lab: 4 hours, Clinic: 16 hours - Lab Fee: $20

**PHTA 1020 - Physical Therapist Assistant II**  
*(4 Credits)*  
This course includes an introduction to physical agents and modalities used for pain relief and improvement of tissue healing and function. Content includes the theory and utilization of massage and the theory and application of physical agents as they reduce inflammation and pain and aid metabolic processes. Direct treatment includes mechanical traction, thermo-, hydro-, photo, sound and electrotherapies. These techniques are taught as they relate to practice in a problem-solving, case study format. Students learn to document treatment parameters and patient responses to treatment. (Prerequisite: RHAB 1110, PHTA 1120, 1010) Lecture: 2 hours, Lab: 4 hours - Lab Fee: $20

**PHTA 1120 - Tests and Measurements for Physical Therapist Assistants**  
*(2 Credits)*  
This course instructs PTA students in testing and measurement techniques, specifically manual muscle testing and goniometry for the head, spine and extremities. Lecture: 1 hour, Lab: 2 hours - Lab Fee: $20

**PHTA 1220 - Basic Therapeutic Exercise**  
*(1 Credit)*  
This is an optional course to instruct PTA students to correctly perform therapeutic exercises for musculoskeletal conditions of the upper extremity, lower extremity, and trunk. This course will prepare students to instruct and perform basic exercise in preparation for their first clinical experience. This course will have 5 sessions that are 3 hours each.

**PHTA 2010 - Physical Therapist Assistant III**  
*(7 Credits)*  
This course focuses on interventions for the pulmonary, cardiovascular and musculoskeletal systems with a broad overview of the other body systems. Lecture and laboratory presentations instruct cardiovascular training for risk assessment and rehabilitation; chest physical therapy procedures; therapeutic exercise, particularly as it pertains to orthopedic physical therapy and movement dysfunction; and the management of lower extremity prosthetics. Techniques and concepts from the previous semester courses are integrated with the more advanced treatment interventions. This course runs the first 10 weeks of the semester. (Prerequisite: RHAB 1110, 1030, PHTA 1120, 1010, 1020) Lecture: 9 hours, Lab: 6 hours - Lab Fee: $20

**PHTA 2020 - Physical Therapist Assistant IV**  
*(7 Credits)*  
This course includes a review of neuroanatomy, the study of pathologies and physical therapy intervention for conditions of the central and peripheral nervous systems. Treatment approaches such as PNF, NDT, Bobath, Rood and Brunnstrom, together with training techniques for balance and coordination are included. The role of the physical therapist assistant in discharge planning is also covered. Emphasis is on application of therapy in the rehabilitation units. Students are exposed to specialty areas of physical therapy practice such as geriatrics and pediatrics. Techniques and concepts from previous semester courses are integrated with the more advanced treatment interventions. This course runs for the first 10 weeks of the semester. (Prerequisite: RHAB 1110, 1030, PHTA 1120, 1010, 1020, 2910) Lecture: 9 hours, Lab: 6 hours - Lab Fee: $20

**PHTA 2030 - Physical Therapy for Impaired Neuro Function**  
*(1 Credit)*  
This course is designed to support PHTA 2020 Physical Therapist Assistant IV. This course reviews the structure and function of the nervous system and neuropathology as it affects structures of the nervous system. The course offers additional laboratory time for students to practice treatment interventions as they relate to abnormal movement and function caused by neuropathology. The course runs concurrently with PHTA 2020 and is scheduled at intervals that will help students with theoretical information and practical skills presented in PHTA 2020. (Prerequisite: PHTA 2010; Corequisite: PHTA 2020) Lecture: 9 hours, Lab: 6 hours - Lab Fee: $10
### PHTA 2040 - Career Development Seminar
(1 Credit)
This course is designed to support the students as they prepare for graduation, licensure and employment. Topics such as resume development, interviewing skills, preparation for licensure, negotiation, and professionalism will be presented. Appropriate resources for professionalism will be referenced, including the RI Rules and Regulations for Physical Therapists and Physical Therapist Assistants, Physical Therapy Code of Ethics and Professionalism in PT: Core Values document. (Prerequisite: PHTA 2020, Corequisite: PHTA 2930) Lecture: 1 hour

### PHTA 2910 - Clinical Education I
(3 Credits)
This course is the first of three full time clinical experiences in the PTA program, and runs for a period of six weeks during the summer semester. Students are assigned to clinical sites for 35-40 hours per week of supervised clinical practice. Students observe and assist with Physical Therapy treatment under direct supervision and guidance of Physical Therapists and Physical Therapist Assistants. Students will participate in an online seminar in which relevant clinical issues will be discussed. (Prerequisite: PHTA 1020, RHAB 1030 and Reading Level 250) Lecture: 1 hour, Clinical: 40 hours

### PHTA 2920 - Clinical Education II
(3 Credits)
This course is the second of three full time clinical experiences in the PTA program, and runs for the last six weeks of the fall semester. Students are assigned to clinical sites for 35-40 hours per week of supervised clinical practice. Students will have the opportunity to grow more independent in performing physical therapy treatment under the supervision and guidance of Physical Therapists and Physical Therapist Assistants. Participation in ancillary components of Physical Therapy practice will foster the development of a responsible professional identity. Students will participate in an online seminar in which relevant clinical issues will be discussed. (Prerequisite: PHTA 2010, RHAB 1030 and Reading Level 250). Lecture: 1 hour, Clinical: 40 hours

### PHTA 2930 - Clinical Education III
(3 Credits)
This course is the final of three full time clinical experiences in the PTA program, and runs for the last six weeks of the spring semester. Students are assigned to clinical sites for 35-40 hours per week of clinical practice under the supervision of a licensed Physical Therapist or Physical Therapist Assistant. Students will be exposed to more complex patients, and will be allowed to partake in fulfilling a broad array of practice responsibilities, with increasing degrees of independence. This clinical experience should maximize the integration of all aspects of practice and will render the student prepared to function as a responsible entry level Physical Therapist Assistant. Students will participate in an online seminar in which relevant clinical issues will be discussed. (Prerequisite: PHTA 2020 and Reading Level 250). Lecture: 1 hour, Clinical: 40 hours. Clinical: 240 hours

### PHYS (Physics)

#### PHYS 1000 - Conceptual Physics/Physical Science
(4 Credits)
This course is for students not majoring in science. Physical principles are presented with emphasis on non-quantitative, practical applications of these concepts. Note: This course satisfies one semester of the science requirement for the Associate in Arts degree. (Prerequisite: Basic knowledge of algebra) Lecture: 3 hours, Lab: 2 hours - Lab Fee: $20

#### PHYS 1030 - General Physics I
(4 Credits)
Mechanics and heat are studied as the basic topics of this course. One lecture hour is used as a help session. (Prerequisite: High school algebra AND trigonometry) Lecture: 4 hours, Lab: 3 hours

#### PHYS 1040 - General Physics II
(4 Credits)
Sound, electricity and magnetism, light, atomic and nuclear theories and their applications are studied in this course. (Prerequisite: PHYS 1030 with a grade of "C" or better) Lecture: 3 hours, Lab: 3 hours - Lab Fee: $20

#### PHYS 1050 - Physics for Technology I
(4 Credits)
This course is for students in the Engineering Systems Technology programs. Mechanics, sound, temperature and heat are studied. Lecture: 3 hours, Lab: 3 hours - Lab Fee: $20
PHYS 1070 - Introduction to Renewable Energy
(3 Credits)
This course will introduce renewable energy resources and their applied technologies to the student. Students will learn the physics of energy, as well as, the geology of energy. Topics covered will include, solar, geothermal, tidal, and wave energy, as well as, hydro-electric energy. Lecture: 2 hours, Lab: 2 hours - Lab Fee: $20

PHYS 1100 - Engineering Physics
(4 Credits)
This course is a study of the basic equations of mechanics, heat and thermodynamics. Note: It is usually taken by engineering students in the second semester of the first year. (Pre- or corequisite: Enrollment in MATH 2141 or equivalent or permission of instructor) Lecture: 4 hours, Lab: 3 hours - Lab Fee: $20

PHYS 1110 - Radiographic Physics
(4 Credits)
This course covers the fundamentals of electrical and radiation physics. Student gain an understanding of the basic principles underlying the operation of X-ray equipment and auxiliary devices. Note: Open only to students currently enrolled in Radiography program (Prerequisite: MATH 1179 or its equivalent) Lecture: 3 hours, Lab: 2 hours - Lab Fee: $20

PHYS 2110 - Topics in Acoustics, Optics and Thermodynamics
(3 Credits)
This course deals in the fundamentals of acoustics and optical phenomena and introduces topics of thermodynamics, kinetic theory and wave motion. Calculus is used. Note: Usually taken by engineering students in the first semester of the second year. Calculus is used. (Prerequisite: PHYS 1100 or equivalent AND MATH 2141, 2142 or equivalent or instructor's permission) Lecture: 3 hours

PHYS 2111 - Introduction to Acoustics and Optics Laboratory
(1 Credit)
This course deals with laboratory experiments in simple harmonic motion sound waves, reflection and refraction of light, lenses, prisms, diffraction of light, holography and some fiber optic systems. (Prerequisite or corequisite: PHYS 2110 or equivalent) Lab: 3 hours - Lab Fee: $20

PHYS 2500 - Applications in Science and Math
(1 Credit)
This capstone course is intended for students in their final semester of the Science program. It allows students an opportunity to demonstrate and integration of knowledge and abilities acquired in previous science and mathematics courses with added intent of developing new insights. Students read selected articles, such as those that come from scientific journals, in a variety of fields and then have the opportunity to collaborate with their peers honing writing, synthesis and presentation skills (Prerequisites: Successful completion of a minimum of 21 general education credits and a minimum of 18 Science credits or permission of the instructor - SEE DEPARTMENT CHAIRPERSON FOR PERMISSION OVERRIDE) - Lab Fee: $20

POLLS (Political Science)

POLLS 1000 - Introduction to Government and Politics
(3 Credits)
An introduction to the field of political science, covering each area of the discipline, including comparative government and political systems, political economy, political ideology, international and global politics and methods of political analysis. Recommended as a first course for those pursuing further study in political science. Also recommended as a single course for those not taking other political science courses. Lecture: 3 hours

POLLS 1010 - American National Government
(3 Credits)
This course is a study of the American political system at the national level. It covers the structure of the U.S. government and its powers and limitations. It also covers policymaking, the governing and electoral processes, the roles of the people, the media, special interests and political parties. Areas of national concern such as economic and foreign policy and national security also are covered. Lecture: 3 hours
### POLS 1030 - State and Local Government
(3 Credits)
This course is a study of politics and government at the state and local level, including governmental structures, powers and limitations and governing and electoral processes. Areas of state and local concern such as urban and regional planning, most of the legal system and everyday matters ranging from public works to education are covered. Lecture: 3 hours

### POLS 2010 - International Relations
(3 Credits)
This course studies international and global politics. It includes study of diplomatic history, theoretical approaches, global political economy, international law and organization issues of war, peace and political stability. (Recommended: POLS 1000 or 1010 or HIST 1210 or 1220 prior to taking this course) Lecture: 3 hours

### POLS 2040 - American Political Parties
(3 Credits)
This course studies political parties, politics and elections in the United States. It covers the political history of elections, voting patterns and party alignments, as well as the roles of special interests and the media in the electoral process. (Recommended: POLS 1000 or 1010 or HIST 1210 prior to taking this course) Lecture: 3 hours

### POLS 2045 - American Politics & Government: Critique & Analysis
(3 Credits)
This course is a critical and analytical study of the various theories which interpret the American political system, their historical applications and relationship to current policy areas. (Prerequisite: POLS 1010) Lecture: 3 hours

### POLS 2110 - Modern Political Ideologies
(3 Credits)
In this course, students study modern and contemporary political ideologies in terms of their development and applications. This course involves intensive reading and interpretation of original works. (Recommended: POLS 1000 or 1010 or HIST 1020 prior to this course) Lecture: 3 hours

### PORT (Portuguese)

### PORT 1000 - Basic Spoken Portuguese I
(3 Credits)
This is an introductory elective course for beginners emphasizing correct pronunciation and basic vocabulary for practical use in everyday conversational situations and travel dialogues. Students with no previous study of the language are prepared to use and understand it within a limited context and basic structure. Lecture: 3 hours

### PORT 1010 - Elementary Portuguese I
(3 Credits)
This course is for students with little or no preparation and covers elements of the language including: conversation, pronunciation, reading, writing and grammar. Aspects of Portuguese culture are also included. Lecture: 5 hours

### PORT 1020 - Elementary Portuguese II
(3 Credits)
This is a continuation of PORT 1010. (Prerequisite: PORT 1010, PORT 1030 or its equivalent) Lecture: 5 hours

### PORT 1030 - Elementary Portuguese I
(3 Credits)
Portuguese 1030 is a faster paced version of Portuguese 1010. This course is suitable for students with previous experience i.e. Basic spoken Portuguese and/or other prior formal study of the language, prior formal study of another foreign language, or informal experience with a foreign language. The course covers elements of the language including: conversation, pronunciation, reading, writing, and grammar. Aspects of Portuguese-speaking cultures are also included. Note: Course content is the same as Portuguese 1010 with two fewer hours per week. (Prerequisite: Prior preparation as noted above or permission of instructor). Lecture: 3 hours
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<tr>
<td>PORT 1040</td>
<td>Elementary Portuguese II</td>
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<td>PORT 1100</td>
<td>Basic Spoken Portuguese II</td>
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<td>PORT 1710</td>
<td>Portuguese for Medical Service Personnel</td>
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<tr>
<td>PORT 2010</td>
<td>Intermediate Portuguese I</td>
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<td>PORT 2020</td>
<td>Intermediate Portuguese II</td>
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<td>PSYC 1030</td>
<td>Psychology of Personal Adjustment</td>
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<td>PSYC 1050</td>
<td>Psychology in the Workplace</td>
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<td>PSYC 1110</td>
<td>Career Information Seminar</td>
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<td>PSYC 1970</td>
<td>Human Relations Seminar and Application</td>
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<td>PSYC 2010</td>
<td>General Psychology</td>
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behavior, personality, health psychology, and behavior disorders. Contemporary controversial issues are also addressed and critically examined. Lecture: 3 hours; On-line: 1 hour

### PSYC 2020 - Social Psychology
(3 Credits)
The emphasis of this course is the experimental approach to the study of social influence. The behavior of individuals in relation to their social-cultural environment is considered in light of special topics such as conformity, attitudes, aggression, cognitive organization, group dynamics, prejudice and interpersonal attraction. (Prerequisite: PSYC 2010) Lecture: 3 hours

### PSYC 2030 - Developmental Psychology
(3 Credits)
This course offers students an understanding of the significant dynamics of human development, with emphasis on the normal rather than abnormal. Levels or stages of development covered include prenatal, infancy, childhood, adolescence, adulthood and old age. The earlier, more formative years receive special consideration because of their importance to later development. (Prerequisite: PSYC 2010) Lecture: 3 hours

### PSYC 2050 - Behavior Modification
(3 Credits)
This course reviews in detail basic research and data on learning, focusing primarily on operant and classical conditioning. Basic principles and theories of behavior modification are emphasized, including reinforcement, punishment and methods of collecting data in both laboratory and natural settings. Students are required to design and conduct a behavioral change project under the supervision of the instructor. (Prerequisite: PSYC 2010) Lecture: 3 hours, Lab: As required

### PSYC 2070 - Educational Psychology
(3 Credits)
This course deals with the application of psychological principles to preschool, elementary, special needs and secondary level classroom situations. Focus is on four topics essential to effective teaching: human development, learning and instruction, motivation and evaluation. Lecture: 3 hours

### PSYC 2090 - Adolescent Psychology
(3 Credits)
This is an in-depth study of the adolescent period, including significant theories of physical, cognitive and psychosocial development. The course surveys past and present sociocultural, economic and educational issues affecting the behavior of individuals from puberty into adulthood. (Prerequisite: PSYC 2010 and 2030) Lecture: 3 hours

### PSYC 2100 - Theories of Personality
(3 Credits)
This course provides a detailed review and formal representation of the major theories of personality. The role of personality theory in the development of psychology, along with the location of the major viewpoints in the contemporary scene, is emphasized. (Prerequisite: PSYC 2010) Lecture: 3 hours

### PSYC 2110 - Abnormal Psychology
(3 Credits)
This course examines a wide range of psychological and behavioral problems including theories of their causation. Emphasis is placed on evidence and problems in connection with theories of treatment ranging from Freudian analysis to learning theory. (Prerequisite: PSYC 2010) Lecture: 3 hours

### PSYC 2120 - Foundations of Psychological Research
(3 Credits)
This course surveys the basic principles of scientific inquiry followed by an intensive development of the techniques involved in conducting and reporting behavioral research. Methods of experimental control and design, use of descriptive statistics and the appropriate form and style of written research reports are covered. (Prerequisite: PSYC 2010) Lecture: 3 hours
RENL (Renal Dialysis)

RENL 1010 - Renal Dialysis Technology I
(4 Credits)
This course is designed to provide students with information concerning the principles of renal dialysis; the normal operation of dialysis equipment and the procedure for performance of renal dialysis. Emphasis is placed on the procedure for the performance of renal dialysis. Content includes the technical aspects of preparing, operating, monitoring and maintaining dialysis equipment. Attention is given to medications routinely used in renal dialysis and the role of the dialysis technician. Patients' needs and safety are addressed throughout. Theoretical information is supplemented with clinical observation. Privacy issues, HIPAA requirements, standard precautions for protection of patients and personnel are emphasized. Lecture: 3 hours, Clinical: 4 hours

RENL 1020 - Patient Care and Assessment for Renal Dialysis Technicians
(3 Credits)
This course is designed to provide students with the information necessary to provide care appropriate to the renal dialysis patient. End-stage renal disease is discussed as well as methods of treatment and associated conditions. Psychosocial and dietary needs specific to patients with renal disease are discussed as is methods for patient assessment and documentation. The control of infection and measures for patient comfort and transfer are also considered. Lecture: 3 hours

RENL 1030 - Renal Dialysis Technology II
(6 Credits)
This course is designed to provide students with information concerning the principles of renal dialysis. The skills critical to the recognition of complications or abnormal situations as well as the appropriate responses are stressed. An examination of previously discussed patient care skills and monitoring procedures relative to emergency situation is reviewed. Emphasis is placed on standards and regulations pertinent to water treatment, quality control issues and workplace safety. Theoretical information is supplemented with clinical observation. Written case presentations, as they relate to the dialysis patient, is required. (Prerequisite: RENL 1010) Lecture: 2 hours, Lab: 4 hours, Clinical: 24 hours

RESP (Respiratory Therapy)

RESP 1000 - Introduction to Respiratory Therapy
(3 Credits)
In this course, students explore current concepts in health care including patient/client care issues such as effective communication, cultural and age-specific concerns and disease management models. Health care provider topics such as professionalism, ethical and legal considerations, including credentialing and licensure are addressed. A brief overview of the U.S. health care system is discussed, addressing past and present payment structure, care settings and delivery models. An introduction to medical terminology is also included. Lecture: 3 hours

RESP 1010 - Respiratory Care I
(4 Credits)
This course introduces students to the hospital and patient environment in the classroom and the laboratory. Students learn an array of respiratory therapy procedures. An overview of the structure and function of the cardio-respiratory system is examined as well as physical principles of gas flow and lung mechanics. Principles of breathing and gas exchange, including oxygen and carbon dioxide transport and arterial blood gas values and interpretation are addressed. Laboratory practice is included. (Admission to the Respiratory Therapy program) Lecture: 3 hours, Lab: 3 hours - Lab Fee: $20

RESP 1012 - Pre-Clinical Practice
(2 Credits)
This course is designed to prepare students for the initial clinical experience in the program. It will emphasize students’ ability to identify and follow protocols in order to carry out commonly ordered respiratory therapy procedures. Students will recognize and interpret basic findings in patient assessment, including vital signs, chest assessment, and values for blood chemistry testing. Students will be introduced to the electronic medical record and tracking system, and will participate in case simulations. (Prerequisite: Admission to the Respiratory Therapy program. Lecture: 2 hours

RESP 1100 - Respiratory Care II
(4 Credits)
This course offers a detailed review of therapeutic and diagnostic techniques in respiratory care. It includes the study of both invasive and noninvasive diagnostic techniques for assessing oxygenation, ventilation, pulmonary function and electrocardiography. Students interpret graphics
from these techniques, and are able to classify specific findings. Management of airway emergencies and artificial airways is included. Laboratory practice is provided. (Prerequisite: RESP 1010) Lecture: 3 hours, Lab: 3 hours. - Lab Fee: $20

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<tr>
<td>RESP 1800</td>
<td>Clinical Practicum I</td>
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<td>This clinical experience introduces students to the hospital environment. Emphasis is on orientation, becoming familiar with respiratory therapy department structure and procedures and use of the medical record. Medical gas therapy and incentive spirometry are applied with direct bedside teaching. (Prerequisite: Successful completion of preclinical competency testing) Clinical: 120 hours</td>
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<td>RESP 2020</td>
<td>Cardiopulmonary Diseases I</td>
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<td>This course emphasizes the study of microorganisms and control of pathogens related to cardiopulmonary disorders, the study of common cardiopulmonary disorders with emphasis on characteristics, application of diagnostics and determining appropriate therapeutic regimens. Lecture: 3 hours</td>
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<tr>
<td>RESP 2030</td>
<td>Cardiopulmonary Diseases II</td>
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<td>This course continues the study of the pathophysiology of cardiopulmonary disorders and their treatment. A portion of this course emphasizes the study of cardiopulmonary disorders in pediatric patients and in the neonate. Lecture: 3 hours</td>
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<tr>
<td>RESP 2110</td>
<td>Respiratory Critical Care</td>
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<td>This course offers an introduction to critical care concepts and application of physiologic measures to patient care in the acute care setting. Lecture: 3 hours</td>
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<td>RESP 2120</td>
<td>Respiratory Care III</td>
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<td>Students continue their study of critical care modalities including the principles of positive pressure breathing devices, their clinical applications and alternatives with emphasis on artificial airway management, ACLS protocols, mechanical ventilation principles of operation, management and terminology. Critical care monitoring, including hemodynamic monitoring and pharmacological control, are discussed. Laboratory practice is part of this course. Lecture: 3 hours, Lab: 3 hours - Lab Fee: $20</td>
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<td>RESP 2130</td>
<td>Respiratory Care IV</td>
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<td>Specialized respiratory therapy is studied in-depth with emphasis on nonconventional mechanical ventilation including indications, equipment, procedures and precautions. A portion of this course focuses on pediatric and neonatal critical care modalities. Advanced cardiopulmonary diagnostics, including arrhythmia interpretation and ACLS support, rehabilitation practices, medical ethics and laws pertaining to the care of patients with cardiopulmonary disorders, are discussed. Laboratory practice is included. Lecture: 3 hours, Lab: 3 hours - Lab Fee: $20</td>
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<td>RESP 2140</td>
<td>Basics of Electrocardiography</td>
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<td>This course is designed to provide the health care practitioner with the knowledge and skills needed to accurately identify basic cardiac arrhythmias. A review of cardiac terminology, cardiac physiology and patient interaction before, during and after testing is included. Laboratory instruction provides hands-on practice of electrode placement, equipment set-up and troubleshooting of the electrocardiograph and practice reading ECG rhythm strips for arrhythmias. (Prerequisite: Open to individuals employed in the health care field. Knowledge of cardiac physiology required or permission of department. Recommended: Employment in health care field, knowledge of cardiac physiology or permission of instructor) Note: Phlebotomy students - see prerequisites under program requirements Lecture: 2 hours, Lab: 2 hours - Lab Fee: $20</td>
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<td>RESP 2800</td>
<td>Clinical Practicum II</td>
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<td>This clinical experience allows students to apply knowledge developed through previous and current study. Students are guided and evaluated through bedside teaching. They are exposed to the diagnostic procedure of respiratory therapy and perform specific diagnostic procedures under direct supervision by the clinical director and affiliate staff. Experience in all areas of the hospital with emphasis on respiratory therapeutics, as well as home care are provided. Interpersonal skills are practiced and assessed. (Prerequisite: Successful completion of preclinical competency testing) Clinical: 144 hours</td>
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### RESP 2810 - Clinical Practicum III
(4 Credits)
This clinical experience allows students to apply the techniques and skills of previous and current study to hospitalized patients under direct supervision. Students are introduced to the clinical application of mechanical ventilation as well as to specialized areas of patient care through bedside teaching. In addition, students prepare a case presentation of patients in these areas. Pulmonary function training is also provided. (Prerequisite: Successful completion of preclinical competency testing) Clinical: 322 hours

### RESP 2820 - Clinical Practicum IV
(3 Credits)
In this clinical experience, students will apply all the techniques and skills of the respiratory therapist to hospitalized patients under direct and indirect supervision by the clinical director and affiliate staff. Clinical study of mechanical ventilation is completed. Students also examine neonatal and pediatric procedures. (Prerequisite: Successful completion of preclinical competency testing) Clinical: 224 hours

### RHAB (Rehabilitative Health)

#### RHAB 1010 - Medical Terminology for Rehabilitative Health
(1 Credit)
This course includes an introduction to word parts building medical terms, instruction in organization of the body, directional terms, abbreviations and an overview of the different systems in the body. Students are expected to complete the course via progression through course modules. The course is offered both on-site and on the Web. Lecture: 1 hour

#### RHAB 1020 - Fundamentals of Palpation and Body Movement Skills
(3 Credits)
This course is designed to focus on the concepts and principles of palpatory anatomy and kinesiology. The purpose of this course is to emphasize the development of skilled palpation as a fundamental component of effective manual therapy technique. A solid knowledge base and understanding of how muscles and joints interact based upon their structure and function will be created and enhanced through a Functional Skills Model. This Functional Skills Model combines palpatory anatomy and kinesiology, which help ingrain the accurate location of various anatomical structures through kinesthetic experience, quality of touch, and effective client communication. This model incorporates a unique, experimental, online activities, and participatory class environment, where students are able to retain information while learning to use critical and creative-thinking processes. In the Functional Skills model students will palpate the targeted muscle, which will help students gain a better understanding of the designated muscle’s location, size, texture, role in posture, and dynamic movement.

#### RHAB 1030 - Pathophysiology for Rehabilitative Health Practitioners
(3 Credits)
This course includes a systems study of pathological conditions. The structure and function of each organ system is presented. Discussion will involve the etiology, signs, symptoms, diagnostic procedures, common medical/surgical management and the prevention of pathological processes as they affect each system. Students will understand the implications of pathological processes on physical function and contraindications and precautions for treatment. (Prerequisite: BIOL 1020 or 1070) Lecture: 3 hours

#### RHAB 1100 - Foundational Kinesiology
(3 Credits)
This online course uses a regional approach to studying the anatomical structures that create both stability and movement in the human body. With a strong focus on musculoskeletal anatomy, the student will be guided through a basic analysis of how functional movement occurs and how the body interacts functionally with the environment. Each student will complete a muscle mapping project where the attachment points of the skeletal muscles are drawn on a real miniature skeletal model.

#### RHAB 1110 - Kinesiology
(4 Credits)
This course covers the study of human movement and locomotion by combining human anatomy with aspects of biomechanics, muscle physiology, physical laws of gravity, leverage, and motion. This course deals with specific kinesiological functions of the musculoskeletal system with application to patient-related activities for the physical therapist assistant and the occupational therapy assistant. (Note: Restricted to OCTA, PHTA, TMSG and TMSC students. Prerequisite: BIOL 1010 or 1070) Lecture: 2 hours, Lab: 3 hours
RHAB 2010 - Nutrition Basics  
(3 Credits)
This is an online interactive course designed to prepare students to understand how carbohydrates, fats and proteins function in the body; how each macronutrient, alone and when combined, undergoes integrated metabolism within tissues; and how the macronutrients integrate to affect overall metabolism, disease risk and recovery. Additionally, this course will prepare students to understand how micronutrients (vitamins and minerals) play a significant regulatory role as well as the interaction between nutrients. Students will explore the variability in micronutrient requirements between individuals, outline the signs and symptoms associated with both nutrient deficiency and excess. Other topics presented within this course are the functions of nutrients in the production, quality and consumption of foods and how they are to be prepared consistent with food safety precautions, budgeting for nutritious foods, nutrition across the lifespan, and current topics in nutrition.

ROTC (Reserve Officer Training Corps)

ROTC 1010 - Introduction to Leadership and Military Skills  
(3 Credits)
Under auspices of Providence College Military Science Department

ROTC 1020 - Leadership Skills  
(3 Credits)
Under auspices of Providence College Military Science Department

ROTC 2050 - Leadership and Decision Making w/Lab  
(3 Credits)
Under auspices of Providence College Military Science Department

ROTC 2070 - Sophomore Military Science and Lab  
(3 Credits)
Under auspices of Providence College Military Science Department. Prerequisite: ROTC 2050. Spring semesters only.

RUSN (Russian)

RUSN 1000 - Basic Spoken Russian I  
(3 Credits)
This is an introductory elective course for beginners emphasizing correct pronunciation and basic vocabulary for practical use in everyday conversational situations and travel dialogues. Students with no previous study of the language are prepared to use and understand it within a limited context and basic structure. Lecture: 3 hours

RUSN 1050 - Elementary Russian I  
(3 Credits)
For students with some previous experience in the language. This course covers elements of the language including conversation, pronunciation, reading, writing and grammar. Aspects of Russian culture also are included. Lecture: 3 hours

SOCS (Sociology)

SOCS 1010 - General Sociology  
(3 Credits)
This is an introductory course presenting a description and analysis of the structure and dynamics of human society. It focuses on social norms, groups, intergroup relations, social change, stratification and institutions. Social interaction and the values that orient behavior in groups are examined. Contemporary society and its problems are discussed. Lecture: 3 hours
SOCS 2020 - Marriage and Family
(3 Credits)
This is a survey of the basic factors of courtship, mate selection, engagement, marriage and rearing children in preparation for successful marriage and parenthood. Marital values and problems are discussed. The course studies the family as the basic unit in society and its relationship to society as a whole. Current changes in family life and their causes are examined. Lecture: 3 hours

SOCS 2030 - Urban Sociology
(3 Credits)
This course analyzes the influences of urban interaction on group relationships. Consideration is given to multi-factors inherent in problems pertaining to urban population movements, economic dislocations, minority-majority cultural conflicts and pluralistic power patterns. The role of public media and pressure groups also is studied as integral to contemporary urban group relationships. Lecture: 3 hours

SOCS 2040 - Sociological Perspectives of Race and Ethnic Relations
(3 Credits)
This is a survey of the sociological aspects of intergroup relations as they pertain to race and ethnicity. Emphasis is placed on the socio-historical conceptualization of race and ethnicity, classical and contemporary sociological theories (e.g. assimilation, theories of immigration, racialization, and typologies of racism) regarding race and ethnicity. Majority-minority relations in the U.S. are also examined. SOCS 1010 is highly recommended as a prerequisite. Note: May be taken as an alternative to SOCS 1010 in Human Services. Lecture: 3 hours

SOCS 2050 - Social Problems
(3 Credits)
This is a survey of the sociological aspects of major contemporary social problems in the United States. Emphasis is placed on personal pathologies (e.g., alcoholism, drug addiction, sexual pathology, suicide) population problems, educational problems, racism, sexism, ethnic problems, family problems and crime. (Prerequisite: SOCS 1010) Lecture: 3 hours

SOCS 2110 - Introduction to Anthropology
(3 Credits)
This course is an introduction to the basic principles and methods of cultural anthropology. Emphasis is placed on the concept of culture as a way of explaining human behavior, with illustrations from selected preliterate societies. The biocultural evolution of mankind is covered. Lecture: 3 hours

SOCS 2120 - Sociology of Work in Formal Organizations
(3 Credits)
Students learn to think critically and develop skills for teamwork in the context of large organizations, based on sociological principles of bureaucracy, group dynamics, leadership and authority. A solid grasp of the concepts in this course enables students to analyze and articulate the basic components of large organizations, the purpose of teamwork, and the kind of skills needed to succeed as a member of a team. Lecture: 3 hours

SOCS 2300 - Criminology
(3 Credits)
This course considers the nature of crime and the criminal who commits social infractions. Emphasis focuses equally on theoretical and applied criminology. Lecture: 3 hours

SPAN (Spanish)

SPAN 1000 - Basic Spoken Spanish I
(3 Credits)
This is an introductory elective course for beginners emphasizing correct pronunciation and basic vocabulary for practical use in everyday conversational situations and travel dialogues. Students with no previous study of the language are prepared to use and understand it within a limited context and basic structure. Lecture: 3 hours

SPAN 1010 - Elementary Spanish I
(3 Credits)
This course is for students with little or no preparation and covers elements of the language including: conversation, pronunciation, reading, writing and grammar. Aspects of Spanish and Hispanic American culture are also included. Lecture: 5 hours
SPAN 1020 - Elementary Spanish II  
(3 Credits)  
This is a continuation of Elementary Spanish I (SPAN 1010). (Prerequisite: SPAN 1010, 1030 or equivalent) Lecture: 5 hours

SPAN 1030 - Elementary Spanish I  
(3 Credits)  
Spanish 1030 is a faster paced version of Spanish 1010. This course is suitable for students with previous experience i.e. Basic spoken Spanish and / or other prior formal study of the language, prior formal study of another foreign language, or informal experience with a foreign language. The course covers elements of the language including: conversation, pronunciation, reading, writing, and grammar. Aspects of Spanish-speaking cultures are also included. Note: Course content is the same as Spanish 1010 with two fewer hours per week. (Prerequisite: Prior preparation as noted above or permission of instructor). Lecture: 3 hours

SPAN 1040 - Elementary Spanish II  
(3 Credits)  
This course is a continuation of SPAN 1030. Note: Course content is the same as SPAN 1020 with 2 less classroom hours per week. (Prerequisite: SPAN 1030, SPAN 1010 or its equivalent) Lecture: 3 hours

SPAN 1230 - Spanish for Law Enforcement Personnel I  
(3 Credits)  
This is an elective course designed for the student seeking a position in the Law Enforcement field and/or the professional already working in the career. (Language elective for Law Enforcement students) The course focuses on common situations encountered by Law Enforcement professionals providing practical communication skills development and information needed for daily work routines. Correct pronunciation and basic grammar are addressed. Lecture: 3 hours

SPAN 1710 - Spanish for Medical Service Personnel I  
(3 Credits)  
This course provides students an opportunity to master enough oral Spanish to deal directly with Spanish-speaking patients and family from hospital admission through discharge. Day-to-day dramatic re-creations of hospital experiences from the points of view of both nurse and patient help students improve proficiency in the use of spoken Spanish. Note: Elective credit for students in Nursing and Allied Heath fields. Lecture: 3 hours

SPAN 2010 - Intermediate Spanish I  
(3 Credits)  
This course helps students develop skill in reading and discussing texts related to Spanish and Hispanic-American culture and literature. Course work is supplemented by further work in grammar, conversation and composition. (Prerequisite: SPAN 1020 or SPAN 1040 or the equivalent) Lecture: 3 hours

SPAN 2020 - Intermediate Spanish II  
(3 Credits)  
This is a continuation of Intermediate Spanish I (SPAN 2010). (Prerequisite: SPAN 2010 or its equivalent) Lecture: 3 hours

SPAN 2210 - Advanced Spanish Conversation and Composition I  
(3 Credits)  
This an intensive course in conversation and composition. Selected cultural videos, readings and classroom discussions provide an atmosphere to develop and improve speaking and understanding of Spanish. Oral presentations and written compositions are required. (Prerequisite: SPAN 2010 or permission of instructor) Lecture: 3 hours

SPAN 2220 - Advanced Spanish Conversation and Composition II  
(3 Credits)  
This is a continuation of Spanish Conversation and Composition I (SPAN 2210). (Prerequisite: Permission of instructor) Lecture: 3 hours
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<tr>
<th>Course Code</th>
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<th>Credits</th>
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<tbody>
<tr>
<td>THEA 1080</td>
<td>Introduction to Costuming</td>
<td>3</td>
<td>This is a basic course in costume design, including theory and practice, with units on costume history, sewing and construction. Two hours of lecture and one hour of lab weekly. (May be counted toward the Fine Arts requirement in the Liberal Arts program.) Lecture: 3 hours (plus 25 hours practical costume work within the semester.)</td>
</tr>
<tr>
<td>THEA 1090</td>
<td>Introduction to Theatre</td>
<td>3</td>
<td>This course introduces students to the various aspects of theatre, focusing on the ways in which a play script is translated into a full production. Functions of the playwright, actor, director and designer are covered. (May be counted toward the Fine Arts requirement in the Liberal Arts program.) Lecture: 3 hours</td>
</tr>
<tr>
<td>THEA 1120</td>
<td>Stagecraft</td>
<td>3</td>
<td>This course is a survey of various aspects of technical theatre with emphasis on set design, scenic construction, scenic painting and properties. An artistic approach to a unified production concept is stressed. (May be counted toward the Fine Arts requirement in the Liberal Arts program.) Lecture: 3 hours (plus 25 lab hours within the semester)</td>
</tr>
<tr>
<td>THEA 1125</td>
<td>Play Analysis for Production</td>
<td>3</td>
<td>This course is designed to equip students with skills necessary to use a script as a “blueprint” for production, including research, analysis and interpretation. It gives an overview of different historical eras, elements of script analysis and utilization of these elements by directors, designers and actors. Lecture: 3 hours</td>
</tr>
<tr>
<td>THEA 1126</td>
<td>Diverse Voices in Contemporary Theatre</td>
<td>3</td>
<td>This course is intended to engage students in discovering the significant ideas, vibrant characters and universal themes of multiculturalism through the lens of theatre. Plays to be studied will include, but will not limited to, the works of Wilson, Nottage, Diamond, Norris, Hwang, Hudes, Lopez, Cruz and Rivera. Emphasis is on the social, cultural and philosophical implications in the representative plays. Lecture: 3 hours</td>
</tr>
<tr>
<td>THEA 1130</td>
<td>Origins of Theatre</td>
<td>3</td>
<td>This is a lecture course emphasizing the development of theatre in Western and Eastern civilization. Included are various theatrical forms and styles as reflections of the historical periods in which they grew. (May be counted toward the Fine Arts requirement in the Liberal Arts program.) Lecture: 3 hours</td>
</tr>
<tr>
<td>THEA 1140</td>
<td>Acting I</td>
<td>3</td>
<td>This is a beginning course in acting techniques. Students participate in a variety of theatre exercises, improvisations and scenes with the purpose of self-discovery leading to character development and interpretation. (May be counted toward the Fine Arts requirement in the Liberal Arts program.) Lecture: 3 hours</td>
</tr>
<tr>
<td>THEA 1150</td>
<td>Theatre for Children</td>
<td>3</td>
<td>This course acquaints students with theory and basic practices in working with children as participants in dramatic activities and with preparing theatrical productions for the child audience. Topics include creative dramatics, improvisational games, story dramatization, puppetry, script selection and analysis and play production. Students apply principles discussed to the preparation of a children's theatre production for public performance. (May be counted toward the Fine Arts requirement in the Liberal Arts program.) Lecture: 3 hours</td>
</tr>
<tr>
<td>THEA 1160</td>
<td>Movement for Actors</td>
<td>3</td>
<td>This is a lecture-performance course in theatre considering body movement as a fundamental instrument of the actor. It deals with the basic principles, techniques and styles of movement for the actor. Major emphasis is on the various forms movement can take in creating a role</td>
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</table>
(characterization) and on translating emotions into movement and dance. (May be counted toward the Fine Arts requirement in the Liberal Arts program.) Studio: 3 hours

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<tr>
<td>THEA 1170</td>
<td>Theatrical Make-up</td>
<td>(3)</td>
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<td>This course explores the use of makeup as a tool for expressing dramatic characters, as well as the history of makeup styles as they relate to character development. Students design and implement the makeup for several different characters types including basic beauty, old age and fantasy. There may be opportunities for practical hands-on implementation of makeup designs for one of the semester's theatre productions. Lecture: 3 hours</td>
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<tr>
<td>THEA 1180</td>
<td>Stage Lighting and Sound Production</td>
<td>(3)</td>
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<td></td>
<td>A survey of various aspects of technical theatre, with emphasis on light and sound design and execution and stage management. The course stresses an artistic approach to a unified production concept. (May be counted toward the Fine Arts requirement in the Liberal Arts program.) Lecture: 3 hours (plus 25 lab hours within the semester)</td>
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<tr>
<td>THEA 1470</td>
<td>Dance 2 Jazz and Tap</td>
<td>(1)</td>
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<td>Introduction to the fundamental techniques of jazz and tap dance. Emphasis is placed on class participation so that students may develop their knowledge and understanding of the basic principles of jazz and tap dance, including warm-up, isolations and choreography. Jazz and tap dance history and historical jazz and tap dance figures will be explored and discussed. (repeatable to 2 credits) Studio: 2 hours</td>
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<tr>
<td>THEA 1480</td>
<td>Dance I</td>
<td>(1)</td>
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<td>This course explores dance as an art form through familiarizing the student with various forms such as ballet, jazz and modern dance. Intensive studio experience emphasizes the acquisition of basic dance skills, kinesthetic perception, rhythmic awareness and development of strong fundamental technique. Repeatable up to 2 credits. Studio work: 2 hours</td>
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<tr>
<td>THEA 2140</td>
<td>Acting II</td>
<td>(3)</td>
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<td>Continuing the work begun in Acting I, this course emphasizes increased depth in performance and further practical work in characterization, text analysis and scene preparation. (May be counted toward the Fine Arts requirement in the Liberal Arts program.) (Prerequisite: THEA 1140 or consent of instructor.) Lecture: 3 hours</td>
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<tr>
<td>THEA 2145</td>
<td>Acting for the Camera</td>
<td>(3)</td>
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<td>This course will expand skills introduced in Acting I to acting for the camera. Through exercises and scene study, we will develop the performer's range of emotional, intellectual, physical, and vocal expressiveness for the camera. Students will act in on-camera exercises, television scenes, and film scenes. Lecture: 3 hours</td>
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<tr>
<td>THEA 2200</td>
<td>Theatre Graphics</td>
<td>(3)</td>
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<td>This course offers a survey of U.S.I.T.T. standard graphics, drafting, rendering techniques and model construction for theatrical designs (settings, lighting and costuming). It prepares students for a major in design or theatre technology at a four-year college or university. This is a capstone course for students in the Technical Theatre track at CCRI. (Prerequisites: ENGT 1060, ARTS 1010, THEA 1120, 1180 and 1090). Lecture: 3 hours</td>
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**TMSG (Therapeutic Massage)**

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<tr>
<td>TMSG 1000</td>
<td>Introduction to Therapeutic Massage</td>
<td>(2)</td>
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<td>This course presents an overview of the field of massage therapy and the evolving roles and opportunities of the massage therapist within the health care delivery system is presented. Topics such as history, licensure requirements, education, employment opportunities, professional organizations and the benefits of massage are covered. Ethical issues for the massage therapist are discussed. The student will learn basic techniques for hand and foot massage. The student is required to receive one full body massage from a licensed massage therapist during the semester. Lecture: 2 hours (2.5 hours in summer due to condensed time frame)</td>
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</table>
TMSG 1020 - Swedish Massage  
(5 Credits)  
Students will learn the five standard Swedish massage strokes, as well as complementary strokes commonly used in Swedish massage. Through demonstration and practice, the students are able to perform a full-body Swedish massage in one hour. The theoretical principles of research including scientific study of professional touch is discussed. The indications, contraindications, limitations and physiological effects of these techniques are described. Introduction to documentation is provided. Students are instructed in the scope of practice, creating professional boundaries, the therapeutic relationship, approaches to care, working with hospital based clients, proper draping methods, personal and client hygiene, obtaining a medical history, proper body mechanics, basic exercises for personal care, basic first aid, and OSHA regulations to provide a safe and nurturing practice environment. - Lab Fee: $20

TMSG 1030 - Deep Tissue Massage  
(5 Credits)  
This course presents student with a wider and deeper understanding of soft tissue techniques and their effects on the human body. Students are instructed in specific patterns for common pathological conditions, the use of trigger point therapy, deep tissue manipulation, fascial restrictions to abnormalities and postural analysis. Origin, insertion, and action of major muscles will be reviewed. The indications, contraindications, limitations and physiological effects of these techniques will be described discussion along with the effects of stress and disease. Students will focus on determining and applying the appropriate modality to achieve the goals. Students will learn an introduction to the lymphatic system and how it works. Students will learn about the flow of lymphatic fluid, lymph nodes, and basic protocols along with contraindications. The course applies concepts from anatomy, kinesiology, neuromuscular assessment and evaluation. Laboratory experience will provide students with the opportunity to become comfortable with the techniques, proper body mechanics, obtaining medical history and therapeutic relationships. Through demonstration and practice, the student will be able to complete a treatment plan and be able to perform a full body massage and receive a full body massage, using a variety of deep tissue techniques. Professional behaviors in the classroom setting are expected at all times and are evaluated each class. - Lab Fee: $20

TMSG 1040 - Introduction to Eastern Modalities  
(2 Credits)  
Students explore eastern modalities in health and wellness care. Primary focus is an introduction to the history, theory and basic practice of shiatsu therapy and acupressure. This includes a study of selected meridians, acupoints and other aspects of traditional Chinese medicine. The indications, contraindications, limitations and effects of shiatsu and acupressure are described. Students learn methods and terminology for documentation. Laboratory experience provides students with the opportunity to become comfortable with shiatsu and acupressure techniques, and to learn proper mind-body mechanics for providing safe and effective treatment on the shiatsu mat and on a massage chair. Students also learn techniques for integrating shiatsu and acupressure into their Swedish massage, and explore how to practice massage in a more embodied, mindful, compassionate, and ecologically attuned way. Students encounter a range of additional modalities including qi gong, yoga, t’ai chi, meditation, and feng shui. Participation in all aspects of this course is required.

TMSG 1140 - Integrating Eastern and Western Techniques  
(2 Credits)  
Students will learn clinical applications of eastern modalities in the integrative clinical practice of massage therapy. Specifically, they learn how to integrate eastern body mechanics, mind-body techniques, and meridian/acupoint work into Swedish and/or deep tissue massage treatments. Students will explore integrative massage strategies for addressing chronic low back pain with a goal of preventing or reducing a client's use of prescription opioid medication. Students will also explore contemporary clinical acupuncture and acupressure research in the development of an integrative massage treatment protocol for a particular client population. Participation in all aspects of this course, which includes regular qi development exercises, mind-body cultivation, and integrative massage practice outside of class hours, is required.

TMSG 2010 - Introduction to Sports Massage  
(2 Credits)  
This course serves as a basic introduction to the role of the Sports Massage Therapist; the course applies concepts from anatomy, orthopedic massage and will focus on the uses of massage in sports activities. Students will understand the benefits and learn techniques for pre-event, inter- event, post-event and maintenance massage. Students will gain skill in treatment session planning, palpation assessment and documentation. An overview of common sports injuries and conditions will be presented. Musculoskeletal concerns will be examined. Hydrotherapy as an adjunct to tissue and muscle healing will be addressed. Specific hydrotherapeutic methods will be reviewed and presented in laboratory sessions. - Lab Fee: $20

TMSG 2020 - Student Massage Clinic  
(3 Credits)  
This course marks the first part of the student’s clinical education, it focuses on integrating skills learned in previous courses; community outreach and educating the public to the benefits of clinical massage therapy. The course is conducted at the college providing massage services to clients within the community. Students will set up and run the in-house clinic under the supervision licensed program faculty, with the emphasis on clinic
policies and procedures, clinical behavior, professionalism, interview skills and develop treatment plans, ethics and proper client care. Students will gain experience relative to a massage office practice, marketing, record keeping, scheduling clientele, basic accounting procedures, and ensuring compliance with OSHA standards, blood borne pathogens and HIPAA training. - Lab Fee: $20

**TMSG 2021 - Massage Practice Business Theory**  
(2 Credits)  
This course focuses on providing students with knowledge of business management skills for massage practitioners. Students will demonstrate skills in business management including financial organization, accounting basics, taxes and maintaining proper documentation. Topics include legal and ethical issues, record-keeping, taxes, pricing, bookkeeping, inventory maintenance, interviewing skills and resume development. The student will be provided with an overview of OSHA, HIPAA and ADA regulations as they relate to the massage profession. (Prerequisite: RHAB 1110, 1030, TMSG 1020, 1030) Lecture: 2 hours

**TMSG 2030 - Clinical Internship I**  
(2 Credits)  
The focus of this course is to gain experience providing massage therapy services to the healthy population, or to special populations including those with various pathologies and injuries. Students will be supervised by qualified healthcare providers employed at various community and healthcare facilities. Clinical placements are available in a variety of settings including private offices, nursing homes, group homes, athletic training facilities and hospitals. In addition to gaining clinical experience, students will participate with record maintenance, accounting procedures, and ensuring OSHA standards in the health care environment.

**TMSG 2040 - Foundation of Evidence-Based Outcomes for Massage Therapists**  
(3 Credits)  
This course is designed to provide students with information necessary to evaluate the effectiveness of various massage techniques, with client populations under various conditions. The emphasis is to provide the student with skills to conduct a literature search, appreciate the value of evidence-based practice for massage therapists, to critically evaluate research studies, and to use the information to design more effective treatment plans. Students will demonstrate the ability to use this evidence to inform consumers, health care providers, government agencies, and professional association of the value of massage in the health care system. (Prerequisites: RHAB 1110, 1030, TMSG 1020, 1030, 2010, 2020, 2021; Corequisites: TMSG 2030, 2135) Lecture: 3 hours

**TMSG 2110 - Advanced Sports Massage**  
(3 Credits)  
The role of the Sports Massage Therapist in the athletic setting will be expanded. The course will focus on the uses of massage in the athletic training environment. Students will learn to recognize and apply specific massage skills for Repetitive Use Injuries, including hamstring strains, shoulder, knee and foot pathologies. Application of techniques for these specific problems will provide opportunities for psychomotor mastery that will be evaluated in hands on sessions. Indications and contraindications for heat and cold applications an adjunct to tissue and muscle healing will be addressed. Specific methods such as muscle energy techniques, including proprioceptive neuromuscular facilitation (PNF), a comparison of types of stretching methods and self-myofascial release techniques will be demonstrated in hands on sessions. Students will learn about overtraining syndrome causes and effects and the role of massage in supporting the over-trained athlete. An introduction to the Kinesio Taping method will also be provided outlining foundational concepts of this modality and specific applications for minor repetitive use conditions. - Lab Fee: $20

**TMSG 2130 - Clinical Internship II**  
(2 Credits)  
The focus of this course is to gain experience providing massage therapy to the healthy population, or to special populations including those with various pathologies and injuries. Students will be supervised by qualified healthcare providers employed at various community and healthcare facilities. Clinical placements are available in a variety of settings including private offices, nursing homes, group homes, athletic training facilities and hospitals. In addition to gaining clinical experience, students will participate with records maintenance, accounting procedures, and ensuring OSHA standards in the health care environment.

**TRVL (Travel and Tourism)**

**TRVL 1010 - Introduction to Travel and Tourism**  
(3 Credits)  
This course provides an overview of the travel and tourism profession. Students explore a full range of travel products and destinations, as well as the business and technical skills necessary to begin a productive travel career. Lecture: 3 hours
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<tbody>
<tr>
<td>TRVL 1020</td>
<td>Destination Geography</td>
<td>(3 Credits)</td>
<td>The major purpose of this course is to familiarize the student with basic travel geography as it relates to the travel and tourism industry. Major attractions of various countries at specific times, including cultural, industrial, historical and artistic displays are emphasized; and seasonal attractions such as festivals, camping and sports, etc., are also included. Lecture: 3 hours - Lab Fee: $20</td>
</tr>
<tr>
<td>TRVL 2010</td>
<td>Computer Reservation Systems I</td>
<td>(3 Credits)</td>
<td>This course is designed to give students simulated, hands-on training utilizing various computerized software programs, like SABRE, for ticketing on airlines, hotels and motels, car rental agencies and other essentials parts of travel. Students start with the basic steps of building a passenger name record to the complicated entries of extensive travel itineraries. (Prerequisite: TRVL 1010 and 1020 or permission of instructor) Lecture: 2 hours, Lab: 2 hours - Lab Fee: $20</td>
</tr>
<tr>
<td>TRVL 2020</td>
<td>Travel Agency Operations and Administration</td>
<td>(3 Credits)</td>
<td>This course provides students with the background necessary to handle the day-to-day operations of a travel agency. It provides a thorough understanding of agency business, including conference requirements, location and staffing, reservations and bookings, sales reports, agency record-keeping and commissions tracking. (Prerequisite: TRVL 1010 and 1020 or permission or instructor) Lecture: 3 hours</td>
</tr>
<tr>
<td>TRVL 2030</td>
<td>Conference and Convention Planning</td>
<td>(3 Credits)</td>
<td>This course develops an understanding of the skills required to plan and conduct successful meetings and conventions. Topics covered include setting up timetables, selecting meeting sites, negotiating, menu planning and budgeting. Lecture: 3 hours</td>
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<tr>
<td>TRVL 2110</td>
<td>Computer Reservation Systems II</td>
<td>(3 Credits)</td>
<td>This course further expands the skills developed in the Computer Reservation Systems I course. It will provide the student with an opportunity to complete the most advanced areas of airline computer reservation systems. (Prerequisite: TRVL-2010 or permission of instructor) Lecture: 2 hours, Lab: 2 hours - Lab Fee: $20</td>
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**XRAY (XRAY - Radiography)**

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<tr>
<td>XRAY 1000</td>
<td>Introduction to Radiography</td>
<td>(3 Credits)</td>
<td>This course is designed to give prospective Radiography students an introduction to allied health professions in general and to diagnostic imaging in particular. Topics include admission and graduation requirements for health programs. Medical terminology and an overview of anatomy is taught, along with basic imaging concepts. Radiation safety and patient care issues are addressed. An observation in an affiliated radiology department will be arranged. Note: This course is a requirement for Radiography students but is open to all students. (Prerequisite: ENGL 1010) Lecture: 3 hours</td>
</tr>
<tr>
<td>XRAY 1010</td>
<td>Clinical Radiography</td>
<td>(3 Credits)</td>
<td>This course familiarizes students with the field of radiological technology. Topics include basic anatomy, radiation protection and safety, as well as medical ethics and law as related to radiographic practice. The anatomy, positioning and film critique for selected procedures are included and coordinated with laboratory practice and clinical application. Students are assigned to a four-week clinical rotation upon successful completion of the classroom and lab portion of this course. Lecture: 2.5 hours per week/6 weeks, Lab: 3.5 hours per week/6 weeks, and Clinical: 40 hours/week for 4 weeks. - Lab Fee: $20</td>
</tr>
<tr>
<td>XRAY 1110</td>
<td>Principles of Radiography I</td>
<td>(3 Credits)</td>
<td>This course introduces students to the principles of radiographic exposure, image processing and the prime factors in radiography. Lecture: 3 hours</td>
</tr>
<tr>
<td>XRAY 1130</td>
<td>Radiographic Anatomy and Physiology</td>
<td>(3 Credits)</td>
<td>This course is a study of basic anatomy and physiology and provides students with the opportunity to develop an understanding of the normal functions of organs and body systems as a basis for radiological examination. Lecture: 3 hours</td>
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<tr>
<td>XRAY 1220</td>
<td>Principles of Radiography II</td>
<td>3</td>
<td>This course is a continuation of XRAY 1110 and is designed to give the student a thorough knowledge of the manipulation of exposure factors and to construct technique charts. Lecture: 3 hours</td>
</tr>
<tr>
<td>XRAY 1230</td>
<td>Patient Care for Radiographers</td>
<td>1</td>
<td>This course is designed to develop skills needed to address the needs of patients in the radiology department. Medical asepsis, patient assessment, communication skills, patients' rights and standard of care are addressed, in addition to routine and emergency care. Lecture: 1 hour</td>
</tr>
<tr>
<td>XRAY 1910</td>
<td>Radiography I</td>
<td>6</td>
<td>This course is a study of basic positioning for extremities, chest, abdomen and the bony thorax. Proper patient communication, radiation protection and identification of structures on radiographs are incorporated into each unit of study. This course is coordinated with practical application in the radiography laboratory and at the affiliated hospital. (Prerequisite: XRAY 1010 and XRAY 1110) Lecture: 3 hours, Lab: 2 hour, Clinical: Total 224 hours - Lab Fee: $20</td>
</tr>
<tr>
<td>XRAY 1920</td>
<td>Radiography II</td>
<td>6</td>
<td>This course is a study of the vertebral column, skull and facial bones. This course also studies the alimentary canal, biliary tract and the urinary system in relationship to the contrast agents and positioning utilized for each examination. This course is coordinated with practical application in the radiography laboratory and at the affiliated hospital. Lecture: 3 hours, Lab: 2 hours, Clinical: 16 hours per week - Lab Fee: $20</td>
</tr>
<tr>
<td>XRAY 1930</td>
<td>Radiography III</td>
<td>6</td>
<td>This course is designed to expand the students' working knowledge of technique formulation and conversion factors; to understand the use and limitations of the X-ray tube; to develop an understanding of the function and use of various types of imaging equipment and accessories; and to examine methods for producing radiographic images in fluoroscopy, the operating room and at the patient's bedside. This is related to the students' ongoing clinical experience and their use of computer-assisted imaging modalities in a hospital setting. Lecture: 4 hours, Clinical: 32 hours per week</td>
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<tr>
<td>XRAY 2340</td>
<td>Quality Assurance in Radiography</td>
<td>1</td>
<td>This course is designed to examine the effective functioning of a radiology department. Methods for evaluating quality, equipment testing and documentation will be discussed, as well as the role of the registered radiographer in maintaining quality. Lecture: 1 hour</td>
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<tr>
<td>XRAY 2410</td>
<td>Introduction to Radiation Biology</td>
<td>3</td>
<td>This course presents basic radiobiology in relationship to the possible genetic and somatic effects of radiation dependent upon dose and the rate to specific types of human cells, organs, and systems. Every known method used to limit ionizing radiation from diagnostic examinations is presented. Lecture: 3 hours.</td>
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<tr>
<td>XRAY 2430</td>
<td>Sectional Imaging</td>
<td>3</td>
<td>This course is a study of human anatomy from a sectional perspective. The anatomy of the head, neck, thorax, abdomen, pelvis and vertebral column are studied. This anatomy is related to the use of computer-assisted imaging modalities. Common pathological findings in each area are discussed. Lecture: 3 hours</td>
</tr>
<tr>
<td>XRAY 2460</td>
<td>Principles of Imaging Diverse Patient Populations</td>
<td>3</td>
<td>This course allows students to apply their knowledge of radiographic imaging and patient care to a variety of non-traditional patient populations such as pediatric, geriatric, and trauma patients. Prerequisites: XRAY 1220 and 1920 Lecture: 3 hours</td>
</tr>
</tbody>
</table>
XRAY 2470 - Radiographic Pathology  
(1 Credit)  
This course examines the most common congenital and acquired diseases that are demonstrated radiographically. Etiology, symptoms, treatment and prognosis are discussed. Students evaluate the quality of radiographs of patients with these conditions. Lecture: 1 hour

XRAY 2910 - Radiography IV  
(7 Credits)  
This course deals with the specialized and highly technical procedures in radiography, the equipment and contrast media employed and the general indications for each examination. This course is coordinated with practical application in the radiographic laboratory and the clinical affiliate, where practical skills associated with these procedures are developed. Lecture: 3 hours, Lab: 2 hour, Clinical: 24 hours per week - Lab Fee: $20

XRAY 2920 - Radiography V  
(4 Credits)  
This course requires students to prepare a research project that forms the basis for a written paper and an oral presentation. Students are also required to read and evaluate material on selected topics in health care and new imaging modalities. Mastery of previously learned material is evaluated by comprehensive examinations. Mastery of clinical skills built on previously learned material is also evaluated. Observations in associated imaging modalities is required. Lecture: 1 hour, Clinical: 24 hours per week